ID: 1

Dose-dependent naloxone-induced morphine withdrawal symptoms in opioid-dependent males - a double-blinded, randomized study

Laura Brandt, University of Vienna, laura.brandt@univie.ac.at

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM: Oral opioid preparations combined with naloxone are intended to induce a transient acute withdrawal syndrome to avoid intravenous misuse. This trial aimed to establish an appropriate morphine : naloxone dose ratio for an abuse-deterrent oral opioid formulation. METHODS: In a randomized, double-blinded, 2 x 2 cross-over trial, 43 opioid-dependent patients were challenged with intravenous morphine HCl Ph.Eur. (75 mg; [morphine mono]) or morphine HCl Ph.Eur. and naloxone HCl Ph.Eur. at ratios of 100:1 (75 mg : 0.75 mg; [morphine : naloxone 100:1]) or 200:1 (75 mg : 0.375 mg; [morphine : naloxone 200:1]). Acute naloxone-induced opioid withdrawal was evaluated using subjective (Short Opiate Withdrawal Scale - German [SOWS-G]) and observer-rated (Objective Opiate Withdrawal Scale [OOWS], Wang scale) questionnaires as well as physiologic parameters (pupil diameter, blood pressure, heart rate, respiratory rate). For statistical analysis, the area under the curve (AUC) between baseline and 20 min after drug administration of the outcome variables was calculated. RESULTS: Morphine-naloxone i.v. caused rapid withdrawal symptoms. Co-administration of naloxone dose-dependently (morphine : naloxone 100:1 > morphine : naloxone 200:1) increased SOWS-G, OOWS and Wang Scale AUC when compared to morphine mono, respectively (all $P \leq 0.0001$). A similar response was detectable for changes of pupil diameter. Blood pressure and respiratory rate changed heterogeneously, and heart rate was unaltered by morphine without or with naloxone. CONCLUSION: Morphine : naloxone 100:1 effectively suppresses the pleasurable effects of i.v. morphine and results in an aversive withdrawal reaction. A lower naloxone concentration as used in morphine : naloxone 200:1 does not appear to be appropriate to prevent i.v. morphine misuse.

Willing to present orally: Yes

Financial Support: This trial was sponsored by G. L. Pharma GmbH, Lannach, Austria.

Prefix: Dr.

First Name: Laura

Last Name: Brandt

Degrees: MA MD Ph.D etc:: PhD, MSc

Email: laura.brandt@univie.ac.at

Company Affiliation: University of Vienna

Mailing Address: Universitätsstraße 7

City: Vienna

State: V

Zip/Postal: 1010

Country: Austria

Phone: +436509119839

Membership Year: 2014

Sponsor: Gabriele Fischer-Ph.D.

Travel Award: 2014

Research Interests: Psychiatric/Medical Morbidity,Treatment

Date of Membership: applying for Reg 10.1.17

ID: 2
Outcome of drug and alcohol dependent users after in-patient treatment and effect of follow-up outpatient counseling

Mei Yang, Shenzhen Kangning Hospital, ym8342@163.com

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Other Drug Category: Stimulants, Opioids

Topic: Treatment

Abstract: AIM Relapse presents a major challenge to substance abuse treatment. Knowing outcomes and their predictors of drug use patients are of importance to treatment optimization, while which remain unclear in China. Thus the goal of the study was to address this question. METHODS This prospective study investigate abstinence/relapse rates of a cohort of 274 substance dependent users, including 46 amphetamine-type stimulant (ATS), 42 opioid and 186 alcohol subjects since their discharge from inpatient treatment, with a 6-month follow-up by telephone interview and biological testing. Kaplan-Meier analysis and a Cox model was used to examine time to relapse and predictors. Relapse was defined as any use of the index drugs. Treatment indices such as inpatient duration were abstained from the patient's medical record. RESULTS Continuous abstinence at 6-month follow-up was 69.6% for ATS, 64.3 for opioid, while 38.2% for alcohol subjects. Probability of continuous abstinence of alcohol subjects decreased quicker with months ($p < 0$ .0001) than that of ATS and opioid subjects in Kaplan-Meier analysis. Follow-up outpatient counseling was found to be a robust predictor of continuous abstinence for ATS and alcohol subjects, with hazard ratio being 7.53 (95% CI: 2.09-27.1) and 3.65 (2.32- 5.75) while controlling for patient characteristics and inpatient duration. CONCLUSION The higher relapse rate of alcohol patients suggests extra efforts should be made to address alcohol use disorders. The predicting effect of follow-up outpatient counseling on elevated abstinence probabilities imply adding outpatient counseling after inpatient treatment could be more optimal for relapse prevention.

Willing to present orally: Yes

Financial Support: the Basic Research (Discipline Layout) Project of Shenzhen Science and Technology Innovation Committee (JCYJ20170413101017457) to Tiebang Liu the Science and Technology Plan Project (Knowledge Innovation) of Shenzhen Municipality (JCYJ20160429185634596) to Mei Yang

Name of Sponsor (If you are NOT) a CPDD Member: Wei Hao

Email Address of Sponsor : weihao57@163.com

Prefix: Dr.

First Name: Mei

Last Name: Yang

Degrees: MA MD Ph.D etc:: PH.D

Email: ym8342@163.com

CC Email: MeiYang@mednet.ucla.edu

Company Affiliation: Shenzhen Kangning Hospital

Mailing Address: 1080 cuizhu Road, Luohu District

City: Shenzhen

State: Guangdong

Zip/Postal: 518020

Country: China

Phone: +8613823306542

ID: 3
Double dissociation of HIV and SUD effects on tasks dependent on striatal integrity

Eileen Martin, Rush University Medical Center, eileen_martin@rush.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Other

Other Topic: NeuroAIDS

Abstract: AIM: Substance use disorders (SUDs) are common among individuals infected with HIV, yet whether neurocognitive effects of HIV can be distinguished from more nonspecific effects of SUDs and associated comorbidities is not known. HIV affects dorsal neostriatal systems relatively more than SUDs, which typically engage ventral/limbic striatal processing; we reasoned that HIV+ individuals would perform more poorly on tasks critically dependent on neostriatal integrity than HIV- groups, regardless of drug history. METHODS: We administered two theory driven cognitive neuropsychological tasks to 55 HIV- and 22 HIV+ men and women with no history of drug dependence and well-matched on demographic characteristics; and 303 HIV- and 134 HIV+ individuals with lifetime DSM-IV-diagnosed cocaine or opioid dependence. The drug using groups were verified abstinent and well matched on demographics, substance use, and potentially confounding comorbid disorders including PTSD, depression, ADHD, and antisocial traits. Current and nadir CD4 counts and viral suppression did not differ significantly between HIV+ drug users and non-users. All subjects performed a probability learning task known to engage neostriatal processing; and a delay discounting task, an index of impulsivity typically increased among drug users compared with non-users. RESULTS: HIV Serostatus x Drug History analyses of covariance controlling for education revealed a significant main effect (higher k coefficients) for SUDs but not HIV Serostatus on delay discounting, $p < .05$, $d = -.29$; and a significant main effect for HIV Serostatus but not SUDs for the probability learning task, $p < .05$, $d = .31$. CONCLUSION: These findings support the idea that carefully selected cognitive neuropsychological tasks may have the capacity to detect neurocognitive effects of HIV not attributable solely to SUDs; however, structural and functional neuroimaging studies with more selective neurocognitive probes will be critical for mapping underlying brain systems affected by HIV and substance use disorders.

Willing to present orally: Yes

Financial Support: National Institute on Drug Abuse R01 DA12828 to EMM

Prefix: Dr.

First Name: Eileen

Last Name: Martin

Degrees: MA MD Ph.D etc:: Ph.D.

Email: eileen_martin@rush.edu

CC Email: martin15064@comcast.net

Company Affiliation: Rush University Medical Center

Mailing Address: 1645 W. Jackson Blvd., Suite 600

City: Chicago

State: IL

Zip/Postal: 60612

Country: United States

Phone: (312) 563-6644

Membership Year: 2011

Sponsor: Dr. Linda Chang and Dr. Celeste Napier

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 4
Influence of cannabis-related cues on concurrent monetary choice in humans

Justin Strickland, University of Kentucky, justrickland@uky.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Behavior

Abstract: Aim: Theoretical accounts emphasize the role of substance-related cues in the development and persistence of substance use disorder. Few human laboratory studies have assessed how such cues influence decisions between concurrently presented non-drug reinforcers. None have examined the specific role of cannabis cues. This study evaluated the contribution of cannabis-related cues to concurrent monetary reinforcer choice in humans. Methods: Participants reporting cannabis use during the past two weeks (n = 76) and controls without a cannabis use history (n = 83) were recruited using the crowdsourcing platform Amazon Mechanical Turk. A cued concurrent choice task was used in which two cues (one cannabis and one neutral) were presented side-by-side followed by concurrent monetary offers below each image. Concurrent choice was measured for cannabis-side advantageous, equal, and disadvantageous concurrent monetary offers. The primary dependent measure was choice for cannabis-cued monetary reinforcers on equal trials. Secondary analyses evaluated individual difference variables related to bias. Results: Participants in the cannabis group showed a significant bias for cannabis-cued choices (74.5%, p .54). Cannabis-cued choice was significantly associated with higher cannabis demand intensity (r = .30) and lower elasticity (r = -.29). Conclusion: This study provides evidence that cannabis-related cues can influence choice in a concurrent setting in a way that is specific to an individual's substance use history. Future research evaluating prospective associations between cannabis-cued bias and drug-associated behaviors will help determine the clinical application of these findings.

Willing to present orally: Yes

Financial Support: NSF 1247392; Psi Chi Graduate Research Grant

Prefix: Mr.

First Name: Justin

Middle Initial: C

Last Name: Strickland

Degrees: MA MD Ph.D etc:: MS

Email: justrickland@uky.edu

CC Email: j.charles.strickland@gmail.com

Company Affiliation: University of Kentucky

Mailing Address: 234 Arlington Ave 2

City: Lexington

State: KY

Zip/Postal: 40508-2784

Country: United States

Phone: 7039197715

Membership Year: 2014

Sponsor: Dr. Mark Smith, Ph.D

Travel Award: W&G Award 2017

Research Interests: Behavioral Pharmacology,Treatment

ID: 5
Correlates of perceived need for treatment of drug-using incarcerated African American men

Jardin Dogan, University of Kentucky, jndo224@g.uky.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Treatment

Abstract: AIM:Incarcerated African Americans (AAs) have complicated histories of trauma, mental health disorders, and drug use, resulting in barriers to seeking treatment(Tyler & Brockmann, 2017). With limited resources and access to services both in prison and after release, there is high probability of drug relapse and overdose(Binswanger et al.,2012). Therefore, this study explored correlates associated with perceived treatment needs of drug-using AA male prisoners nearing community re-entry. METHODS:Data were derived from 130 AA incarcerated male drug users scheduled for community re-entry within 120 days. In this sample, ages ranged from 21 to 69 (M=36.11;SD=10.73), years of education ranged from 6th grade to bachelor's degree(M=12;SD=2.53), and length of incarceration ranged from 1 month to 420 months(M=102). Participants reported use of cannabis(95.5%), powder cocaine(51.9%), molly(39.1%), opiates(36.1%), and crack cocaine(34.6%) during the year prior to incarceration. Multiple regression analyses were conducted to examine correlates associated with drug treatment needs. The dependent variable was Perceived Need for Drug Treatment(a=0.85). Higher values signified higher perceived need for drug treatment. The independent variables were number of lifetime overdoses, severity of legal problems, prior unwanted sexual experiences, history of depression, and perceptions about seeing a counselor. RESULTS:Results revealed men with prior unwanted sexual experiences($p < 0$ .01), serious legal problems($p < 0$ .01), and history of depression($p < 0$ .05) indicated a positive significant association with perceived need for drug treatment. For every lifetime drug overdose($p < 0$ .001), every month increase in length of incarceration($p < 0$ .05), and every year increase in age($p < 0$ .10), there was a positive significant association with perceived need for drug treatment. Years of education and perceptions about seeing a counselor were not significant. CONCLUSIONS:The need for drug treatment among incarcerated AA men exists but remains unfulfilled due to limited resources in correctional settings. Since this need increases exponentially after release, leading to a likelihood of relapse, morbidity, and mortality, future studies could focus on care coordination and needs assessments for drug-using prisoners nearing community re-entry.

Willing to present orally: Yes

Financial Support: NIDA K08-DA032296; PI: Stevens-Watkins; NIDA T32-DA035200 PI: Rush; UL1TR001998 PI: Clinical and Translational Science Awards (CTSA)

Name of Sponsor (If you are NOT) a CPDD Member: Danelle Stevens-Watkins, Ph.D.

Email Address of Sponsor : d.stevenswatkins@uky.edu

Prefix: Ms.

First Name: Jardin

Middle Initial: N

Last Name: Dogan

Degrees: MA MD Ph.D etc:: M.Ed., Ed.S.

Email: jndo224@g.uky.edu

CC Email: jndo224@g.uky.edu

Company Affiliation: University of Kentucky

Mailing Address: 2865 Middlesex Way

City: Lexington

State: KY

Zip/Postal: 40503

Country: United States

Phone: 8034932573

ID: 6
Perceived negative effects and benefits of new psychoactive substances (NPS): Results of online survey among NPS Users in Georgia (country)

David Otiashvili, Addiction Research Center, dato@altgeorgia.ge

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Club/Designer Drugs

Topic: Epidemiology

Abstract: Background Increasing use of new psychoactive substances (NPS) represents growing public health challenge elsewhere. This is the first study in Georgia that aims to explore characteristics of users, types of substances used, patterns of use, and health risks. Method In June-September 2017 we conducted an online survey Google platform advertised via Facebook. Individuals who have used NPS during last 12 month filled in a structured questionnaire that covered socio-demographics, drug use practices, and perception of effects of NPS use. Uni- and bi-variate analyses were employed for data analysis. Results Final database consisted of 353 questionnaires. 77.3% were male, mean age was 26.8 years. Prevalence of last year use of cannabis-type NPS was 79.3%, and was followed by MDMA-type NPS (22.1%) and LSD-type NPS (21.2%). 49% of respondents admitted using NPS currently. No problems with physical health was reported by 58.1% cannabis-type, 68.9% MDMA-type, and 75% LCD-type NPS users. Unstable heart rate, nausea, difficulties with breathing and problems with coordination were endorsed in relation to use of NPS. No problems with mental health was reported by 38% cannabis-type, 53% MDMA-type, and 59% LCD-type NPS users. Unstable mood, problems with concentration, hallucinations and paranoia were reported as perceived negative effects of NPS consumption. 70.55% of cannabis-type NPS users believed the substance improved their appetite and 57.5% believed the drug helped them with sleep. Benefits of other substances were also reported. Conclusions This is the first study describing the NPS use in Georgia. Cannabis-type, MDMA-type and LSD-type NPS were the substances most often used by NPS users. Respondents identified a range of negative health and social effects and linked them to consumption of particular NPS. Results of this research are important for guiding future efforts to assess health risks associated with NPS use, and to propose strategies and interventions to mitigate those risks.

Willing to present orally: Yes

Financial Support: No external financial support was provided for this study

Prefix: Dr.

First Name: David

Last Name: Otiashvili

Degrees: MA MD Ph.D etc:: M.D., Ph.D.

Email: dato@altgeorgia.ge

Company Affiliation: Addiction Research Center

Mailing Address: 14a Nutsubidze Street, Office 2

City: Tbilisi

State: GA

Zip/Postal: 0177

Country: Georgia

Phone: 995322 396699

Fax: 995322 396699

Membership Year: 2013

Sponsor: Dr. Hendree Jones, Ph.D. and George Woody, Ph.D.

Research Interests: Policy,Treatment

ID: 7
Alcohol use and alcohol use motives in women firefighters: The role of conformity to masculine norms

Lia Smith, University of Houston, ljsmith6@central.uh.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Behavior

Other Topic: Addiction and Women

Abstract: Aim: Firefighters are at risk for alcohol misuse and alcohol use disorder. Growing evidence suggests that women who endorse conformity to masculine norms may be at heightened risk of hazardous alcohol use. Thus, conformity to masculine norms represents a mechanism with potential to predict alcohol use and alcohol use motives among women firefighters. We hypothesized that higher alcohol use (i.e., total number of drinks, past 2 weeks) and conformity to masculine norms would be associated with increased hazardous alcohol use and alcohol use coping motives; and conformity to masculine norms would moderate the association between alcohol use and hazardous alcohol use and alcohol use coping motives. Methods: Participants included 45 women firefighters (Mage = 40.2; 77.6% white) who completed questionnaires and a 2-week Time-Line Follow-Back (TLFB; number of drinks per day) procedure. Hierarchical regression models were employed. Covariates included years in the fire service, depressive and posttraumatic stress symptoms. Results: Higher alcohol use (TLFB; &â€Œbeta;=.80, p< .001), but not conformity to masculine norms (&â€Œbeta;=.12, p = .27), was incrementally associated with higher hazardous alcohol use. Higher alcohol use (TLFB; &â€Œbeta;=.61, p< .001), but not conformity to masculine norms (&â€Œbeta;=.-.01, p = .94), was significantly associated with higher alcohol use coping motives. No significant associations were found with other alcohol use motives. Conformity to masculine norms moderated associations between alcohol use and (a) hazardous alcohol use (&â€Œbeta;=.26, p

Willing to present orally: Yes

Financial Support: This research was unfunded.

Prefix: Mrs.

First Name: Lia

Middle Initial: J.

Last Name: Smith

Degrees: MA MD Ph.D etc:: MA

Email: ljsmith6@central.uh.edu

Company Affiliation: University of Houston

Mailing Address: 3695 Cullen Blvd.

Address 2: Suite 202

City: Houston

State: TX

Zip/Postal: 77204

Country: United States

Phone: 7137434873

Membership Year: 2017

Sponsor: Dr. Anka Vujanovic

Research Interests: Prevention,Treatment

ID: 8
Electronic cigarette and tobacco use in individuals entering methadone or buprenorphine treatment

Stephen Baldassarri, Yale University, stephen.baldassarri@yale.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: AIM: Evaluate the prevalence and correlates of electronic cigarette (EC) use among individuals with seeking opioid agonist therapy (OAT). METHODS: 782 patients seeking OAT for opioid use disorder (OUD) completed surveys assessing current and past EC use, reasons for use, current and past cigarette smoking, nicotine dependence, psychiatric distress, trauma, and pain. Bivariate and multivariate models evaluated correlates of daily EC use, past-30-day EC use, and current cigarette smoking. RESULTS: 6% of patients reported daily EC use, 18% reported past-30-day use, 62% reported EC use history, and 85% reported current cigarette smoking. 46% reported using ECs to quit or cut down smoking. In multivariate analyses, daily EC use was associated with higher odds of being a former smoker (OR 21; CI 1.7-273) and lower odds of ever smoking more than 100 cigarettes (OR 0.07; CI 0.01-0.32), while EC use in the past 30 days was associated with lower odds of being Caucasian (OR 0.55; CI 0.34-0.89), ever smoking more than 100 cigarettes (OR 0.13; CI 0.02-0.67), and history of chronic pain (OR 0.59; CI 0.38-0.90), and higher odds of reporting psychiatric distress (OR 1.5; CI 1.1-2.2). CONCLUSION: EC use is common among people with OUD who smoke cigarettes. Those with daily use had higher odds of being former smokers than current smokers. Interventions using ECs may be effective to help reduce harms and mortality in OUD.

Willing to present orally: No

Financial Support: This effort was supported by the National Institute on Drug Abuse (K12DA033012 and K23DA045957). The content of the manuscript solely reflects the views of the authors and does not necessarily represent the views of the NIH or authors' affiliated institutions.

Name of Sponsor (If you are NOT) a CPDD Member: David Fiellin

Email Address of Sponsor : david.fiellin@yale.edu

Prefix: Dr.

First Name: Stephen

Last Name: Baldassarri

Degrees: MA MD Ph.D etc:: MD

Email: stephen.baldassarri@yale.edu

Company Affiliation: Yale University

Mailing Address: 300 Cedar St, TAC-455 S

City: New Haven

State: CT

Zip/Postal: 06520

Country: United States

Phone: 9145899086

Travel Award: NIDA Diretor's 2018

ID: 9
Relationship of cardiac health indicators to cocaine use variables

William Stoops, University of Kentucky, wwstoo0@email.uky.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Treatment

Abstract: AIM The cardiovascular effects of cocaine lead to overdose and premature death, but little is known about the links between cocaine use variables and cardiac health. As such, cardiac health measures may represent a new treatment target. This analysis determined the relationships between cardiac health indicators and cocaine use variables. METHODS Baseline data from nineteen participants engaged in a larger, ongoing clinical trial were included in this analysis. Measures of cardiac health (e.g., heart rate, blood pressure, cholesterol, c-reactive protein [CRP]) and cocaine use variables (i.e., days of use in the last 3 months, number of Cocaine Use Disorder [CUD] criteria endorsed) were collected during a screening period. Data were first analyzed using descriptive statistics and the relationship between cardiac health indicators and cocaine use variables was then determined using linear regression. RESULTS Subjects reported using cocaine 33 days in the last 3 months and endorsed 7 CUD criteria on average. CRP, cholesterol, triglyceride and platelet count levels were elevated for 53%, 32%, 21% and 11% of the sample, respectively. Days of cocaine use in the last 3 months was negatively correlated with blood pressure and CRP (r values = -.48 to -.55). CUD criteria were positively correlated with HDL, CD40, QT interval and QT-QTC ratio (r values = .46 to .53), but negatively correlated with QRS complex (r value = -.48). These relationships were not statistically significant after controlling for relevant demographic variables. CONCLUSION Subjects had several cardiac health indicators that put them at risk for future complications. This risk may not be solely attributable to cocaine use, however, because demographic variables contributed to the variance observed in linear regressions. Future work will need to determine the unique contributions of cocaine use, and changes in cocaine use, to cardiac health indicators.

Willing to present orally: Yes

Financial Support: R01 DA 043938

Prefix: Dr.

First Name: William

Middle Initial: W.

Last Name: Stoops

Degrees: MA MD Ph.D etc:: Ph.D.

Email: wwstoo0@email.uky.edu

CC Email: william.stoops@uky.edu

Company Affiliation: University of Kentucky

Mailing Address: 465 E. High Street Suite 204B

City: Lexington

State: KY

Zip/Postal: 40507

Country: United States

Phone: (859) 257-5383

Fax: (859) 257-7684

Membership Year: 2001

Sponsor: Craig R. Rush, Ph.D. and Sharon Walsh

Joseph Cochin Young Investigator Award: 2013

Travel Award: 2007

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 10
Training health sciences students to conduct screening, brief intervention and referral for treatment (SBIRT) for substance use problems

Maureen Reynolds, University of Pittsburgh, maureen@pitt.edu

Abstract Category: Program Descriptions

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: all drugs of abuse

Topic: Treatment

Other Topic: Training for intervention

Abstract: AIM Training health professional students to screen, intervene and refer patients for substance use treatment can ultimately improve patient care and patient outcomes at a decreased healthcare cost (Triple Aim). The objective of this project is to train healthcare professional students to conduct substance use screening using evidence-based tools, and conduct brief interventions using principles of Motivational Interviewing to guide their patients toward behavior change. METHODS SBIRT training has been embedded into the curricula of the professional degree programs in Pharmacy, Physical Therapy, Physician Assistants, Clinical Rehabilitation and Mental Health Counseling, as well as in the School of Medicine Psychiatry clerkship and residency programs, from which 829 students have completed the training. Students complete 8 hours of online training, including a virtual patient simulation, and 2 hours of didactic instruction provided by trained faculty, including role plays and standardized patient interactions. Students voluntarily participate in pre and post-training surveys of knowledge, attitudes and self-perceived competence in addressing substance use with their patients. RESULTS Nearly 80% of the students (N=652) completed the pre and post-training surveys. There were significant knowledge gains across all disciplines (Mean difference =1.318, F=3.453, p

Willing to present orally: Yes

Financial Support: SAMHSA/CSAT Grant # 1H79TI026423 and SAMHSA/CSAT Grant # 1H79TI026446

Prefix: Dr.

First Name: Maureen

Middle Initial: D.

Last Name: Reynolds

Degrees: MA MD Ph.D etc:: Ph.D.

Email: maureen@pitt.edu

Company Affiliation: University of Pittsburgh

Mailing Address: 2706 Toledo Street

City: Pittsburgh

State: PA

Zip/Postal: 15204

Country: United States

Phone: (412) 331-3828

Fax: (412) 771-9281

Membership Year: 2014

Sponsor: Dr. Ralph Tarter , Ph.D. and Dr. Ty Ridenour, Ph.D.

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 11
Alexithymia, alcohol expectancies, drinking refusal self-efficacy expectancies and negative affect in alcohol-dependent treatment seekers

Fred Thorberg, Innlandet Hospital Trust, f.a.thorberg@medisin.uio.no

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Dependence

Abstract: Aim: Up to 50% of individuals with alcohol dependence report alexithymia, a personality trait associated with difficulties in identifying and describing feelings and an externally oriented thinking style. Other key factors associated with alcohol misuse originating from Social Cognitive Theory include alcohol and self-efficacy expectancies. This study explored relationships between alexithymia, alcohol expectancies, drinking refusal self-efficacy, state anxiety, depression and alcohol dependence severity in an alcohol-dependent treatment seeking sample. Methods: One hundred and seventeen consecutive patients (67% males, 23-66 years of age, Mage = 45) in outpatient Cognitive-Behavioral Therapy for alcohol dependence were recruited. Participants with a diagnosis of a co-morbid major psychiatric disorder or severe cognitive impairment were excluded. Participants were detoxified prior to assessment and completed the Toronto Alexithymia Scale (TAS-20), Drinking Expectancy Questionnaire-Revised (DEQ-R), Drinking Refusal Self-Efficacy-Revised (DRSE-R), State Anxiety Subscale of the State Trait Anxiety Inventory (STAI), Beck Depression Inventory II (BDI-II) and Alcohol Use Disorders Identification Test (AUDIT). Results: Externally Oriented Thinking was significantly negatively correlated with days abstinent ($r = -.20$, $p = .03$) as well as treatment attendance ($r = -.22$, $p = .05$). MANCOVA controlling for age and gender indicated that alexithymic alcoholics reported significantly higher levels of sexual, cognitive and dependence alcohol expectancies as well as state anxiety, depression and opportunistic drinking refusal-self efficacy compared to non-alexithymic alcoholics, Wilks' Lambda $F(12, 59) = 3.64$, $p = .0001$, power = .99. Path analysis showed that opportunistic drinking refusal self-efficacy expectancy mediated the relationship between Difficulty Identifying Feelings and AUDIT score. Conclusion: The findings suggest that alexithymic alcoholics reported stronger self-reported experiences of sexual and cognitive enhancement from drinking, and more negative affect and loss of control over drinking, compared to non-alexithymic alcoholics. Opportunistic drinking refusal self-efficacy appears to be an underlying mechanism of the relationship of alexithymia and alcohol dependence severity.

Willing to present orally: No

Financial Support: Innlandet Hospital Trust, Norway, Grant 150234 & The Regional Health Authority of Norway, Grant, 2014104.

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Edythe D London

Email Address of Sponsor : ELondon@mednet.ucla.edu

Prefix: Dr.

First Name: Fred

Last Name: Thorberg

Degrees: MA MD Ph.D etc:: MA, Ph.D.

Email: f.a.thorberg@medisin.uio.no

CC Email: f.thorberg@qut.edu.au

Company Affiliation: Innlandet Hospital Trust

Mailing Address: Mental Health Division

City: Brumunddal

State: CA

Zip/Postal: 2381

Country: Norway

Phone: +61404078785

ID: 12
Epigenetic priming maintains transcriptional disruption caused by cocaine

Philipp Mews, Icahn School of Medicine at Mount Sinai, philipp.mews@mssm.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Stimulants

Topic: Neurobiology

Abstract: AIM: The need for deep mechanistic insight into drug addiction is driven by sharp increases in drug abuse, with conventional pharmacotherapies lacking substantial and durable efficacy. Growing evidence implicates altered gene expression in mediating the lasting effects of cocaine, and recent work converges on the notion that epigenetic pathways play key roles in the molecular pathology of addiction. Permanent changes in chromatin structure are hypothesized to underlie the transcriptional dysregulation triggered by cocaine. However, the molecular mechanisms responsible remain unclear. We aim to determine how cocaine changes the epigenetic landscape to persistently alter gene regulation and neural function in the nucleus accumbens (NAc), a key brain region of reward learning. METHODS: The NAc is composed of two functionally distinct types of medium spiny neurons (MSNs), the D1 and D2 dopamine receptor-expressing subtypes, therefore making the cell-type specific identification of epigenetic changes critical. Here, we investigated cocaine-induced changes in chromatin accessibility genome-wide by ATAC-seq in pure D1 and D2 MSN populations through which we distinguished immediate versus persistent alterations in chromatin, in combination with unbiased histone modification profiling by mass spectrometry and ChIP-sequencing. RESULTS: We found that chronic cocaine persistently alters striatal chromatin structure, especially in D1 MSNs, involving deposition of the histone variant H2A.Z at key neuronal genes. Curiously, genome accessibility in D1 MSNs is prominently increased at these key H2A.Z-marked genes even after prolonged periods of withdrawal and, further, linked to the long-lasting dysregulation in MSN subtype-specific gene expression. CONCLUSION: Our investigations provide novel insight into epigenetic priming as an important mechanism whereby drugs of abuse induce long-lasting transcriptional dysregulation in the striatum. Since epigenetic aberrations may be reversible, this mechanistic understanding of chromatin ‘scarring’ by drugs of abuse could pave the way to novel epigenetic interventions to treat drug addiction.

Willing to present orally: Yes

Financial Support: Supported by NIDA

Name of Sponsor (If you are NOT) a CPDD Member: Eric J Nestler

Email Address of Sponsor : eric.nestler@mssm.edu

Prefix: Dr.

First Name: Philipp

Last Name: Mews

Degrees: MA MD Ph.D etc:: Ph.D.

Email: philipp.mews@mssm.edu

CC Email: philipp.mews@mssm.edu

Company Affiliation: Icahn School of Medicine at Mount Sinai

Mailing Address: 1425 Madison Avenue ICAHN 10-26

City: New York

State: NY

Zip/Postal: 10029

Country: United States

Phone: 2156810980

ID: 13
The DISSECTIV method uncovers hidden actions of complex psychoactive mixtures: Emergent polypharmacology in fenethylline

Cody Wenthur, University of Wisconsin-Madison, WENTHUR@WISC.EDU

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Stimulants

Topic: Mechanisms of Action

Abstract: AIM Fenethylline, also known as Captagon, is a synthetic psychoactive stimulant that has recently been linked to substance use disorder and 'pharmacoterrorism'. Although the psychoactive properties of fenethylline differ qualitatively from those of other synthetic stimulants, the chemical complexity it manifests upon metabolism has impeded efforts to identify the mechanisms behind these effects. We hypothesize that the augmented psychoactive effects of fenethylline emerge as a result of coincident activity of its active metabolites, rather than through unique actions of the parent molecule. METHODS We develop a 'dissection through vaccination' approach, called DISSECTIV, to unambiguously identify the active chemical species supporting fenethylline psychoactivity, using bioconjugation of haptens directed against specific molecular species. This was followed by incremental vaccination of male Swiss Webster mice (449 total; 5 - 12 animals/group) with these bioconjugates. Pharmacokinetic analysis was then used to confirm anatomical restriction of the desired chemical species. The contribution of each species to the overall psychoactive profile was assessed through analysis of open-field hyperlocomotion, elevated plus-maze, and conditioned place preference behavior due to 20 mg/kg of amphetamine in the presence of each vaccine. RESULTS Vaccination against fenethylline significantly reduced hyperlocomotion ($P < 0.0001$) and blocked anxiogenesis ($P = 0.0137$). Vaccination against amphetamine also blunted hyperlocomotion ($P < 0.0001$) and anxiogenesis ($P = 0.0094$). Fenethylline alone was not active at 31 possible targets, while the combination of theophylline and amphetamine recapitulated the observed pattern of psychoactive effects and supra-additively increased hyperlocomotion ($P = 0.0014$) CONCLUSION Our results demonstrate that incremental vaccination against a single chemical species within a multi-component mixture can be used to uncover emergent properties arising from polypharmacologic activity, specifically revealing that fenethylline's rapid-onset and distinct psychoactive properties are facilitated by functional synergy between theophylline and amphetamine.We anticipate that DISSECTIV will be a generally useful method to expose unidentified active chemical species and resolve pharmacodynamic interactions within other chemically complex systems, including those found in counterfeit or illegal drug preparations, following multi-substance use, and within natural product extracts.

Willing to present orally: Yes

Financial Support: This work was supported by NIDA through grant DA024705 and fellowship DA043323.

Name of Sponsor (If you are NOT) a CPDD Member: Andrew Coop

Email Address of Sponsor : acoop@rx.maryland.edu

Prefix: Dr.

First Name: Cody

Middle Initial: J

Last Name: Wenthur

Degrees: MA MD Ph.D etc:: PharmD, PhD

Email: WENTHUR@WISC.EDU

CC Email: WENTHUR@WISC.EDU

Company Affiliation: University of Wisconsin-Madison

Mailing Address: 777 HIGHLAND AVE

City: MADISON

State: WISCONSIN

Zip/Postal: 53705

Country: United States

Phone: 4144033829

ID: 14
Associations of sexual orientation discrimination and substance use disorders: Differences by age and gender

Rebecca Evans-Polce, University of Michigan, bjevans@umich.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: alcohol, tobacco, and other drugs

Topic: Epidemiology

Abstract: Aim: Research suggests sexual minorities are at heightened risk for substance use disorders (SUDs) and discrimination based on sexual orientation may be an important risk factor in this group. However, differences across age and gender have not been systematically examined. We examined age-varying associations of sexual orientation discrimination with alcohol use disorder (AUD), tobacco use disorder (TUD), and drug use disorder (DUD). Methods: Using data from the nationally-representative NESARC-III survey, we conducted time-varying effect modelling to examine the prevalence of sexual orientation discrimination across age and age variations in its association with AUD, TUD, and DUD. Analyses focused on participants aged 18 to 50 who reported non-heterosexual identity, attraction, or behavior (N=2,375). Analyses controlled for sociodemographic and mental health characteristics. Results: The prevalence of sexual orientation discrimination and its association with AUD, DUD, and TUD varied with age. Although sexual orientation discrimination was most prevalent in early young adulthood, it was positively associated with greater odds of AUD, TUD, and DUD at later ages. Associations were significant at ages 24.5 to 40.0 for AUD, ages 32.5 to 42.9 for DUD, and ages 39.3 to 43.2 for TUD. For example, at age 30 participants who reported discrimination had 2.1 times greater odds of AUD (95% CI: 1.3, 3.3) than those who did not report discrimination. At age 35, discrimination was associated with a 2.8 times greater odds of DUD (95% CI: 1.2, 6.6). These associations were stronger for men than women. Conclusions: These findings indicate sexual orientation discrimination is a significant risk factor for SUDs and its salience varies by age and by gender. Age is a critical consideration when thinking about relevant risk factors to consider in prevention and treatment of AUD, TUD and DUD, particularly for sexual minorities.

Willing to present orally: Yes

Financial Support: R01DA043696, R01AA025684, R01DA036541, and R01CA212517

Name of Sponsor (If you are NOT) a CPDD Member: Sean McCabe

Email Address of Sponsor : plius@umich.edu

Prefix: Dr.

First Name: Rebecca

Last Name: Evans-Polce

Degrees: MA MD Ph.D etc:: Ph.D.

Email: bjevans@umich.edu

Company Affiliation: University of Michigan

Mailing Address: 400 N. Ingalls St.

City: Ann Arbor

State: MI

Zip/Postal: 48109

Country: United States

Phone: 7346471595

ID: 15
Exploring sex differences in the prevention of ethanol drinking by naltrexone in dependent rats during early and protracted abstinence

Alessandra Matzeu, The Scripps Research Institute, amatzeu@scripps.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Alcohol

Topic: Behavior

Other Topic: Dependence

Abstract: Aim: Despite considerable efforts, there are few drugs available for treatment of alcohol use disorder (AUD). While naltrexone (NTX) is approved for treating AUD, its efficacy varies between subjects. The present study's aims were to evaluate NTX effect on EtOH drinking in EtOH dependent male and female rats during abstinence. Methods: Wistar rats were first trained to orally self-administer EtOH. Half of them were then made dependent (EtOHD) by chronic intermittent EtOH (CIE, 14h ON, 10h OFF daily) vapor exposure for 6 weeks, the other half, EtOH nondependent (EtOHND), were exposed to air. Rats were then tested for NTX (10 mg/kg, p.o.) effects on the resumption of EtOH drinking at three abstinence time points: acute (8h, A-Abst), late (2 weeks, L-Abst) and protracted abstinence (6 weeks, P-Abst). Results: Male and female EtOHD showed an escalated intake of EtOH after CIE, with higher blood alcohol levels and somatic withdrawal signs compared to non-dependent rats. NTX reduced EtOH intake in male and female EtOHND rats at A-Abst, L-Abst and P-Abst. In EtOHD rats NTX reduced EtOH intake in male rats only at P-Abst, while in females it reduced EtOH intake at all three abstinence time points. NTX decreased EtOH intake in EtOHND subjects regardless of the time of abstinence and sex. In EtOHD subjects, the effects of NTX improved with longer abstinence time in males while it similarly reduced EtOH drinking in females at all abstinence points. Conclusion: Even though NTX is efficacious in decreasing EtOH drinking, its therapeutic efficacy is dependent on the time of intervention during abstinence as well as sex. The data further suggest that EtOH dependence induces different neuroadaptations in male and female reflected by a differential NTX effect. A better understanding of the changes induced by EtOH is needed for the development of better pharmacotherapeutic treatment for AUD

Willing to present orally: Yes

Financial Support: Supported by: the National Institute on Drug Abuse and National Institute on Alcohol Abuse and Alcoholism (grant no. DA033344, AA024146, AA006420, AA022249 and AA026999 to RM-F).

Prefix: Dr.

First Name: Alessandra

Last Name: Matzeu

Degrees: MA MD Ph.D etc:: Ph.D.

Email: amatzeu@scripps.edu

Company Affiliation: The Scripps Research Institute

Mailing Address: 10550 N. Torrey Pines Road

Address 2: SP30-2003

City: La Jolla

State: CA

Zip/Postal: 92037

Country: United States

Phone: 858-784-7339

Fax: 858-784-7146

Membership Year: 2014

Sponsor: Dr. Remi Martin-Fardon, Ph.D. and M. Foster Olive, Ph.D

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

Date of Membership: 2016

ID: 16
Blockade of orexin receptors in the paraventricular nucleus of the thalamus prevents stress-induced food-seeking behavior in rats with a history of alcohol dependence

Remi Martin-Fardon, The Scripps Research Institute, rmartinf@scripps.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Alcohol

Topic: Behavior

Abstract: Aim: Neural systems that are involved in processing natural rewards and drugs of abuse overlap, and exposure to drugs of abuse induces neuroadaptations that can cause compulsive-like behavior. Recruitment of the orexin (Orx) system by drugs of abuse may induce neuroadaptations that slant its function toward drug-directed behavior. Behavioral and functional evidence suggests a role for Orx signaling in the neurobehavioral and motivational effects of ethanol (EtOH). It is known that Orx neurons projects to the paraventricular nucleus of the thalamus (PVT), a structure that plays a key role in energy homeostasis, arousal, endocrine regulation, reward and stress regulation. This study aimed to determine (1) whether stress-induced reward seeking behavior toward a highly palatable food reward changes following a history of EtOH dependence and (2) whether Orx transmission in the PVT mediates stress-induced natural reward-seeking behavior in animal that had a history of EtOH dependence. Methods: Wistar rats (males and females) were first trained to orally self-administer sweetened condensed milk (SCM), a highly palatable food reward. Half of them were then made dependent (EtOHD) by chronic intermittent EtOH (CIE, 14h ON, 10h OFF) vapor exposure for 6 weeks, the other half, EtOH nondependent (EtOHND), were exposed to air. At the end of the 6 weeks dependence induction, at 8 h of abstinence,the rats were tested for stress-induced SCM seeking. Results: The data show that stress triggered SCM-seeking behavior in both EtOHDand EtOHNDwith the same efficacy. However, blockade of both Orx receptors in the PVT with TCS1102 (15µg/0.5µl) prevented stress-induced SCM seeking in EtOHPDrats only. Conclusion: The results suggest a maladaptive recruitment of PVT-Orx transmission by EtOH dependence reflected by a differential effect of TCS1102 in EtOHDvs. EtOHNDrats.

Willing to present orally: No

Financial Support: Supported by: the National Institute on Drug Abuse and National Institute on Alcohol Abuse and Alcoholism (grant no. DA033344, AA024146, AA006420, AA022249 and AA026999 to RM-F).

Prefix: Dr.

First Name: Remi

Last Name: Martin-Fardon

Degrees: MA MD Ph.D etc:: Ph.D.

Email: rmartinf@scripps.edu

Company Affiliation: The Scripps Research Institute

Contact Title: Staff Scientist

Mailing Address: 10550 North Torrey Pines Road

City: La Jolla

State: CA

Zip/Postal: 92037

Country: United States

Phone: (858) 784-7154

Fax: (858) 784-7146

Membership Year: 2009

Sponsor: Dr. Wouter Koek and George Koob

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 17
Examining a quadripartite model of passion for marijuana use: Associations with consumption, consequences, craving, and satisfaction with life

Alan Davis, Johns Hopkins University, adavi157@jhmi.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Other

Other Topic: Motives

Abstract: Aim: Passion for marijuana (MJ) use has been examined via a dualistic model: obsessive passion (OP; MJ conflicts with values and other activities) and harmonious passion (HP; MJ is important but not an overwhelming behavior), focusing on the unique effects of OP and HP on use/consequences. However, new research in the general passion literature suggests that a quadripartite approach could enhance the interpretation of risks associated with OP. Therefore, we compared levels of MJ passion (No Passion = Low-OP/Low-HP; Pure HP = Low-OP/High-HP; Mixed Passion = High-OP/High-HP; Pure OP = High-OP/Low-HP) with use, consequences, and MJ-related constructs in a community sample of heavy MJ users. Method: Using internet-based advertisements, we recruited 161 respondents (Mage = 27.3, SD = 8.9; Male=87%; White/Caucasian=86%; Mpast30-dayMJuse = 22.3; SD = 9.9) to complete a web-based survey. Four MJ passion subgroups were created (50% mean cutoff) for OP and HP scales (No Passion: n=42; Pure HP: n=33; Mixed Passion: n=41; Pure OP: n=45). Chi-square, one-way ANOVA, and effect sizes were calculate to examine subgroup differences on sociodemographic variables, MJ use, consequences, craving, and life satisfaction. Results: Results indicated no differences in sociodemographic variables as a function of MJ-passion subgroup. Participants in the Mixed Passion and Pure OP groups reported greater number of use days (p

Willing to present orally: Yes

Financial Support: Dr. Davis was supported by a NIDA T32 postdoctoral training grant (#DA07209). The funding source had no role in the design/execution of this study or the interpretation or communication of findings.

Prefix: Dr.

First Name: Alan

Middle Initial: K.

Last Name: Davis

Degrees: MA MD Ph.D etc:: Ph.D.

Email: adavi157@jhmi.edu

CC Email: alan.kooi.davis@gmail.com

Company Affiliation: Johns Hopkins University

Mailing Address: 8 N Collington Ave

City: Baltimore

State: MD

Zip/Postal: 21231

Country: United States

Phone: 7042191733

Membership Year: 2012

Sponsor: Dr. Gereald Connors, Ph.D.

Research Interests: Etiology,Treatment

ID: 18
National guidelines for long-term opioid therapy from around the world: A comparison with USA CDC national guidelines

Paul Sloan, University of Kentucky, paul.sloan@uky.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Other

Other Topic: opioids for long-term chronic pain

Abstract: AIM National opioid guidelines are used throughtout the world to help limit and guide the use of prescription opioids for chronic pain. In America, the 2016 CDC opioid guideline has helped curb the misuse and diversion of prescription opiods. The aim of this study was to identify all national opioid chronic pain guidelines from the world, and compare recommendations with the USA CDC opioid guideline. METHODS Pubmed, the internet, opioid review reference lists, and other health science references were reviewed to identify publication of opioid guidelines from a national comittee or society from any country. Opioid guidelines given by individuals, state or local societies were not included for review. Each opioid guideline was then compared and contrasted concerning recommendations published the the USA CDC concerning prescription opioid management. RESULTS 16 national opioid guidelines were identified from around the world, and reviewed. 75% of the guidelines were from America, and all of the guidelines were from countries high in opioid consumption per capita. All guidelines recommended the use of nonopoid therapies for the initial treatment of chronic pain. No guideline addressed children, and only 3/16 guidelines specifically addressed opioid use among the elderly. Only 50% of guidelines agreed with the CDC that IR opioids should be used initially; and only 10/16 guidelines agreed with the CDC that benzodiazepines should be avoided among patients on long-term opioid therapy. The European Pain Federation 2016 guideline does not give any maximum recommended opioid daily dose. CONCLUSION National opioid guidelines from western nations agree with most USA CDC guidline recommendations. Guidelines are equally divided regarding extended-release versus immediate-release opioids for chronic pain. 37% of national opioid guidelines reviewed did not discuss concomitant use of benzodiazepines. Given the divergence of opioid guideline opinion, clinical research is needed to discover if the addition of CDC guideline into clinical practice has reduced opioid abuse/misuse.

Willing to present orally: Yes

Financial Support: None

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Sharon Walsh

Email Address of Sponsor : sharon.walsh@uky.edu

Prefix: Dr.

First Name: Paul

Last Name: Sloan

Degrees: MA MD Ph.D etc:: MD

Email: paul.sloan@uky.edu

CC Email: paul.sloan@uky.edu

Company Affiliation: University of Kentucky

Mailing Address: 800 Turtle Circle

City: Lexington

State: Kentucky

Zip/Postal: 40503

Country: United States

Phone: 8595524403

ID: 19
Does gender moderate BOLD responses to inhibition in cannabis using adolescents and emerging adults?

Alexander Wallace, University of Wisconsin-Milwaukee, walla228@uwm.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Imaging

Abstract: Aims: Cannabis use has been associated with increased blood oxygen level dependent (BOLD) responses absent of behavioral deficits during a response inhibition task compared to controls (Tapert et al., 2007; Smith et al., 2011). However, very few studies have examined whether gender moderates this relationship. Here we investigate whether gender and cannabis use result in differences in BOLD responses and behavioral performance during a Go-NoGo task. Methods: Participants included eighty-three 16-26 year olds (MJ=36, Controls=47) who were balanced for gender (M=64%). Exclusion criteria included comorbid Axis-I disorders, major medical/neurological disorders, prenatal medical issues, prenatal alcohol/illicit drug exposure, or excessive (>20 times) other lifetime drug use. Participants were monitored for abstinence over a three-week period leading up to the scan. An emotion based Go-NoGo task was completed requiring participants to inhibit their response during a "neutral" face. A whole-brain analysis was completed looking at differences between cannabis group, gender, and their interaction. All statistical decisions were made at a p-value less than 0.05. Results: Significant increased BOLD responses were observed in cannabis users compared to controls in the left frontal cortex, left cingulate cortex, and the left thalamus during correct response inhibitions. There were no significant differences on task performance or group by gender interactions. Conclusion: Supporting previous research, cannabis users showed increased BOLD responses in core areas associated with response inhibition during a Go-NoGo task. Gender did not moderate the effects between cannabis users and controls. This is the first study of its kind to incorporate gender into the analyses and suggests that cannabis use does not disproportionately affect brain function between men and women.

Willing to present orally: Yes

Financial Support: Supported By: R01 DA030354, NIDA; PI: Lisdahl, K.M; U01 DAO41025; PI: Lisdahl, K.M.

Name of Sponsor (If you are NOT) a CPDD Member: Krista Lisdahl

Email Address of Sponsor : krista.medina@gmail.com

Prefix: Mr.

First Name: Alexander

Last Name: Wallace

Email: walla228@uwm.edu

Company Affiliation: University of Wisconsin-Milwaukee

Mailing Address: Pearse Hall 2441 E Heartford Ave.

Address 2: University of Wisconsin - Milwaukee

City: Milwaukee

State: WI

Zip/Postal: 53211

Country: United States

Phone: (641)234-1032

ID: 20
Association of adverse childhood experiences on depression of substance abusers with comorbid medical illness recruited during hospitalization

Helene Philogene-Khalid, Lewis Katz School of Medicine at Temple University, hphilogene16@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Sex Differences

Abstract: Aims: People who experience adverse childhood experiences (ACE) are more susceptible to substance abuse and other related medical complications (e.g. depression). Severe early life stress leads to disruption of the hypothalamic-pituitary-adrenal axis resulting in an increased risk of depression. The present study sought to determine the prevalence of depression as well as whether ACEs were associated with current depression, in patients recruited during an inpatient medical hospitalization with substance use disorders (SUD) and comorbid medical illness. Methods: Medical inpatients at Temple University Hospital with a co-occurring medical condition and SUD signed informed consent and were randomly assigned to a specialized substance abuse intervention plan or treatment as usual (nurse/community health worker). Participants were assessed using an Adverse Childhood Experiences ACE scale at baseline and Patient Health Questionnaire-9 (PHQ-9), at baseline and 3-months post-discharge for substance use and service utilization outcomes. PHQ-9 was used as a depression assessment. Correlations were conducted using the total score of PHQ-9 and individual items on the ACE scale. Results: High prevalence rates for moderate to severe major depression were present among both male (58%) and female (58%) medical inpatients with SUD. At least one ACE was experienced by 95% of participants, and 64% experienced at least four or more. Conclusions: In patients with SUD with medical illness, there are sex/gender differences in the relationship of individual ACES and having major depression. Taken together, integrating trauma informed care into ongoing substance abuse and medical treatment plan might be an effective strategy to treat depression and better address substance disorders in substance abusers with chronic medical illness.

Willing to present orally: No

Financial Support: Patient Centered Outcomes Research Institute (PCORI) IHS-1306-03482 T32 DA007237

Prefix: Mrs.

First Name: Helene

Last Name: Philogene-Khalid

Degrees: MA MD Ph.D etc:: PhD

Email: hphilogene16@gmail.com

Company Affiliation: Lewis Katz School of Medicine at Temple University

Mailing Address: 3500 N. Broad st

Address 2: MERB 874B

City: Philadelphia

State: PA

Zip/Postal: 19140

Country: United States

Phone: 2152001057

Membership Year: 2014

Sponsor: Dr. Ellen Unterwald, Ph.D.

Date of Membership: was removed 7.30.17 owe 2016

ID: 21
Mechanisms of action of most interest to the National Institute on Drug Abuse for the potential treatment of opiate use disorder

David White, National Institute on Drug Abuse, National Institutes of Health, whitedav@nida.nih.gov

---

Abstract Category: Theoretical/Commentary

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Other Drug Category: Polydrug

Topic: Treatment

Abstract: Aim: To inform the research community of NIDA's interest in specific mechanisms as targets for medication development to treat opiate use disorder (OUD) Methods: The Center for Disease Control has reported that more than 42,000 Americans died of opioid overdose in 2016 and that over 2 million Americans live with addiction to opioids. Addiction problems coupled with the suffering of millions of Americans from daily chronic pain without safe and effective non-opioid treatment alternatives, has culminated in a public health crisis that has affected communities across the country. In response to this crisis, the NIH has launched the Helping to End Addiction Long-term (HEAL) Initiative, a trans-agency effort to produce rapid and effective scientific solutions to stem the crisis. As part of the Initiative, NIDA's Therapeutics Development Program is focused on developing novel treatments for OUD. Results: A dynamic list of high-priority pharmacological mechanisms has been identified as potential targets for OUD pharmacotherapies based on data from published literature and internal studies felt to have the most direct relevance to desirable treatment effects and clinical endpoints for OUD. The list is in no particular order and does not include mechanisms of existing OUD medications: orexin 1 or orexin 1/2 antagonists or negative allosteric modulators (NAMs); kappa opioid antagonists/NAMs; GABA-B agonists/positive allosteric modulators (PAMs); muscarinic M5 antagonists/NAMs; AMPA antagonists/NAMS/PAMs; NOP/ORL agonists/antagonists/NAMs/PAMs; mGluR2/3 agonists/PAMs; ghrelin antagonists/NAMs; dopamine D3 partial agonists/NAMs/PAMs; 5-HT2C agonists/PAMs, with or without 5-HT2A antagonist/NAM activity; cannabinoid CB-1 antagonists/NAMs; respiratory stimulants; biased mu opioid agonists or PAMs. A brief rationale with preclinical data (as appropriate) will be provided for each target. Conclusions: companies and researchers are encouraged to discuss: development of compounds with these mechanisms of action; generation of additional data using compounds with these mechanisms of action; or, suggestions for additional novel mechanisms of action with a theoretical rationale or for which there is supporting preclinical data.

Willing to present orally: Yes

Financial Support: NIDA/DTMC

Prefix: Dr.

First Name: David

Middle Initial: A.

Last Name: White

Degrees: MA MD Ph.D etc:: Ph.D.

Email: whitedav@nida.nih.gov

CC Email: davewhite4@gmail.com

Company Affiliation: National Institute on Drug Abuse, National Institutes of Health

Contact Title: Health Scientist Administrator

Mailing Address: 6001 Executive Boulevard

Address 2: Room 4117

City: Bethesda

State: MD

Zip/Postal: 20892-9551

Country: United States

Phone: 3018275981

Fax: 301443-2599

Membership Year: 2002

Sponsor: Stephen G. Holtzman, Ph. D. - Leonard Howel Ph.D and Dr. Martin Adler, Ph.D.

Research Interests: Molecular Biology Pharmacology Behavioral Pharmacology

ID: 22
Multi-site clinical trials and use of a single IRB: A case study from CTN 0067

Kim Hoffman, Oregon Health & Science University, hoffmaki@ohsu.edu

---

Abstract Category: Theoretical/Commentary

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM.The National Institutes of Health requires that multi-site studies use a "single" or "centralized" IRB to reduce variation and delays. To date, little has been documented about the use of single IRBs in multi-site trials. CTN-0067 was among the first NIDA Clinical Trials Network (CTN) protocols to work with a single IRB. METHODS. We examined the implementation process for use of a single commercial IRB for CTN-0067, a clinical trial that tests the use of clinic-based extended-release naltrexone versus treatment as usual (typically buprenorphine or methadone) for opioid use disorders among people living with HIV. Other CTN investigators were also asked to contribute their knowledge and early experiences working on trials that used single IRBs. RESULTS. Advanced planning and transparent communication proved critical to avoid stalling IRB approval and protocol implementation. Some site IRBs were reluctant to cede to a single IRB and had variable interpretations of abbreviated reviews. Most required some level of protocol review before the sites could begin study enrollment. It was necessary to educate study sites to work efficiently with the single IRB. We designated staff at each study site for IRB submission coordination and interaction with the lead site IRB staff; trained investigators and key regulatory staff on expectations working with single IRBs, and dedicated a regulatory specialist at the lead site to manage, communicate and support strong working relationships with local regulatory staff and the single IRB. Investigators should be aware that use of a single IRB may increase, rather than simplify, the complexity of IRB review while the process is being refined. CONCLUSION. An awareness of how different IRB choices may impact study protocol, budget, and implementation is critical to the study's success. Careful planning during the design phase as well as early implementation can help facilitate efficient use of a single IRB.

Willing to present orally: Yes

Financial Support: Awards from the National Institutes of Health, National Institute on Drug Abuse supported the development of this manuscript (R01 DA037441, UG1 DA015815, UG1 DA040314, UG3 DA044831, and HHSN271201500065C).

Name of Sponsor (If you are NOT) a CPDD Member: Todd Korthuis

Email Address of Sponsor : korthuis@ohsu.edu

Prefix: Dr.

First Name: Kim

Last Name: Hoffman

Degrees: MA MD Ph.D etc:: Ph.D.

Email: hoffmaki@ohsu.edu

Company Affiliation: Oregon Health & Science University

Contact Title: Senior Research Associate

Mailing Address: 3181 SW Sam Jackson Park Road, CB669

City: Portland

State: OR

Zip/Postal: 97239

Country: United States

Phone: -9712212951

Membership Year: 2011

Sponsor: Dr. Dennis McCarty

Research Interests: Treatment

ID: 23
Barriers and facilitators to recruiting patients with HIV for opioid use disorder research: Staff Perspectives from the Clinical Trials Network CHOICES study

Kim Hoffman, Oregon Health & Science University, hoffmaki@ohsu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM: The CTN-0067 CHOICES trial tests implementation of extended-release naltrexone (XR-NTX) vs. treatment-as-usual (TAU) for opioid use disorders (OUD) in HIV clinics. The study team performed an investigation of recruitment tactics to elucidate the barriers and facilitators to recruitment. METHODS: Semi-structured, in-depth, digitally recorded interviews were completed with study recruitment related staff and medical providers (n = 26) from six participating HIV clinics in the fall of 2018. Interviews probed recruitment approaches and successes. Interviews were transcribed and thematically analyzed using a content analysis approach. Additional information from lead team site visits were integrated in the analysis. RESULTS: All respondents reported that barriers included stressful patient contextual factors (e.g., homelessness or living environments with high substance use; criminal justice involvement). Most cited time consuming study enrollment processes and stigma around HIV/SUD that inhibits treatment seeking. A barrier for XR-NTX noted by medical providers included patient fear of opioid abstinence required prior to induction. Facilitators included use of a trusted peer outreach/recruitment worker known in community; hospitalizations that offer windows of opportunities for screening and XR-NTX induction; and partnerships with harm reduction organizations for participant referrals. Although the clinical utility of XR-NTX was acknowledged, respondents noted that some patients may be better suited for agonist therapies and that those predispositions required more study. CONCLUSION: A number of factors drive successful recruitment of HIV patients with OUD into clinical trials and highlight directions for enhancing recruitment. Diverse recruitment models, especially peer-outreach models, should be examined prior to implementation and appropriate funding and staff time secured. Findings also point to the need for collaboration with outside partners such as syringe exchange programs to facilitate recruitment. Recommendations for successful recruitment include inpatient medically supervised withdrawal to alleviate withdrawal distress, and social workers who can assist patients in navigating physical, psychological and social challenges to engaging in OUD treatment.

Willing to present orally: Yes

Financial Support: Awards from the National Institutes of Health, National Institute on Drug Abuse (R01 DA037441, UG1 DA015815, UG1 DA040314, UG3 DA044831, and HHSN271201500065C).

Name of Sponsor (If you are NOT) a CPDD Member: Todd Korthuis

Prefix: Dr.

First Name: Kim

Last Name: Hoffman

Degrees: MA MD Ph.D etc:: Ph.D.

Email: hoffmaki@ohsu.edu

Company Affiliation: Oregon Health & Science University

Contact Title: Senior Research Associate

Mailing Address: 3181 SW Sam Jackson Park Road, CB669

City: Portland

State: OR

Zip/Postal: 97239

Country: United States

Phone: -9712212951

Membership Year: 2011

Sponsor: Dr. Dennis McCarty

Research Interests: Treatment

ID: 24
Striatal dopamine release in response to morphine: A [11C]-raclopride positron emission tomography study in healthy men

Primavera Spagnolo, National Institutes of Health, vera.spagnolo@nih.gov

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Neurobiology

Abstract: Background: Preclinical and human positron emission tomography (PET) studies have produced inconsistent results regarding the effects of opioids on mesolimbic dopamine (DA). Here we quantify striatal DA release (measured by [11C]-raclopride displacement) in response to an intravenous infusion of morphine, and its relation with morphine-induced subjective effects, in healthy, non-dependent opioid-experienced participants. Methods: Fifteen healthy male participants were initially included. Sessions were on separate days. On Session 1, participants received intravenous morphine (10 mg / 70 kg) in the clinic to ensure tolerability. Participants without adverse reactions (n = 10) then received intravenous morphine and placebo (saline) sessions, in counter-balanced order, while undergoing [11C]-raclopride PET scans. Subjective and physiological responses were assessed. Region-of-interest and voxelwise image analyses were used to assess changes in [11C]-raclopride non-displaceable binding potential (ΔBPND). Results: Morphine produced marked subjective and physiological effects, and induced a significant decrease in [11C]-raclopride BPND, particularly in the nucleus accumbens and in the pars externa of the globus pallidus (GPe), where ΔBPND was approximately 9%. However, the subjective effects of morphine did not correlate with DA release in a manner predicted by a simple model of DA-mediated opioid reinforcement. In fact, in several striatal subregions and in GPe, DA release was negatively correlated with the subjective response following morphine exposure. Conclusions: This is to our knowledge the first study providing in vivo human evidence that DA transmission in ventral striatum is affected by morphine. Further studies are required to fully delineate the DA contribution to the reinforcing effects of opioids.

Willing to present orally: Yes

Financial Support: NIDA intramural research program and the NIAAA Division of Intramural Clinical and Biological Research (Z1A-AA000466).

Name of Sponsor (If you are NOT) a CPDD Member: Kenzie Preston

Email Address of Sponsor : KPRESTON@intra.nida.nih.gov

Prefix: Dr.

First Name: Primavera

Middle Initial: A

Last Name: Spagnolo

Degrees: MA MD Ph.D etc:: MD, Ph.D

Email: vera.spagnolo@nih.gov

CC Email: vera.spagnolo@gmail.com

Company Affiliation: National Institutes of Health

Mailing Address: 10 Center Drive

City: Bethesda

State: MD

Zip/Postal: 20892

Country: United States

Phone: 2404212667

ID: 25
Addressing the opioid crisis challenge through TAAP - a new class of opioid

Lynn Kirkpatrick, Ensysce Biosciences Inc., lkirkpatrick@ensysce.com

---

Abstract Category: Program Descriptions

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Other

Other Topic: The Opioid Challenge

Abstract: To address the widespread abuse of prescription drugs, including those designated as ADF, Ensysce has created Trypsin Activated Abuse Protection (TAAP™), a novel molecular-scale delivery technology. This technology may hold the promise of being abuse proof, as evidenced by initial work with Pinney Associates (1). TAAP™ has been applied to a number of drugs of abuse including opioids, ADHD amphetamines and most recently methadone. The molecular scale delivery technology was designed to release the prescription drug only when exposed to specific physiologic conditions (i.e., to the digestive enzyme trypsin in the small intestine following oral ingestion). The release kinetics are controlled at the molecular level and are designed to provide for both immediate and extended release formats. TAAP™ provides key non-oral and oral abuse deterrent features to the opioid products including 1) robust tamper-resistance when exposed to a variety of common household chemicals and enzymes in vitro, 2) inactivity at the mu-opioid receptor until activated and 3) minimal systemic conversion following intravenous administration. This unique "bio-conditional" delivery mechanism of TAAP™ cannot be altered by chewing, crushing, or the co-ingestion of alcohol. TAAP™ products have been extensively evaluated in animals and in two human clinical trials. Additionally, the bioavailability of TAAP™ products can be controlled via the co-formulation with a fixed ratio of trypsin inhibitor producing: i) targeted plasma concentration-time profile when a prescribed dose of TAAP™/ trypsin inhibitor is co-ingested, and ii) progressively decreasing bioavailability of TAAP™ when multiple doses are ingested providing overdose protection (MPAR™). The TAAP™ and MPAR™ platforms provide a highly novel approach to ensure drug safety and overdose protection to prescription drugs and agents used for opioid use disorder. Preclinical and clinical data supporting the key non-oral and oral abuse deterrent features of TAAP™ products will be presented. (1) Tamper-Resistance Testing: Comparative Assessment of Bio-MDs vs. Marketed Products. 2013. Signature, Pinney

Willing to present orally: Yes

Financial Support: Work supported by Ensysce Biosciences Inc.

Prefix: Dr.

First Name: Lynn

Last Name: Kirkpatrick

Degrees: MA MD Ph.D etc:: PhD

Email: lkirkpatrick@ensysce.com

CC Email: lkirkpatrick@ensysce.com

Company Affiliation: Ensysce Biosciences Inc.

Contact Title: CEO

Mailing Address: 3210 Merryfield Row

City: San Diego

State: CA

Zip/Postal: 92121

Country: United States

Phone: 8582421539

ID: 26
E-cigarette product characteristics and frequency of smoking among young adults

Zhi Yang, University of Southern California, zhiyang@usc.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Epidemiology

Abstract: AIM Previous research suggests that e-cigarette use is associated with cigarette initiation, including the frequency and heaviness of cigarette smoking. The goal of this research is to examine the impact of specific e-cigarette characteristics on cigarette smoking frequency. METHODS Participants in the Southern California Children's Health Study completed questionnaires in 2016 (Wave 2 [W2]) and 2017 (W3). The sample was restricted to 139 participants who used e-cigarettes in the past 30 days at W2. Generalized negative binomial regression models were used to evaluate the association between each of four e-cigarette characteristics at W2 (device [vape pen vs. mod], flavor [sweet vs. non-sweet], nicotine [yes vs. no], and use of e-cigarettes for "dripping" [yes vs. no]) and cigarette smoking frequency at W3, after adjustment for gender, race/ethnicity, parental education, and log-transformed number of past-30-day cigarettes smoked at W2. Interaction models were used to evaluate whether associations differed by W2 cigarette smoking status (never vs. prior vs. past 30-day). RESULTS Participants who used mods smoked about 20.6 cigarettes in the past 30 days at W3, compared to 1.25 cigarettes for those using vape pens (rate ratio [RR]=4.18; 95%CI: [1.43, 12.3]), which remained significant after additionally controlling for nicotine use ([RR]=4.75; 95%CI: [1.23, 18.4]). The strongest effects of device type on cigarette smoking frequency were observed for current cigarette smokers, with an 11-fold increase in the number of cigarettes smoked at W3 ([RR]=11.6; 95%CI: [2.67, 50.7]). There were no statistically significant associations of e-cigarette flavor, nicotine, or use for dripping with W3 cigarette smoking frequency (Ps>0.05). CONCLUSION Use of mods (vs. vape pens) was strongly, positively associated with cigarette smoking frequency approximately 1 year later, particularly among current smokers at W2. Contrary to some hypotheses, the use of more efficient devices among adolescent smokers increased–rather than reduced–the number of cigarettes smoked.

Willing to present orally: Yes

Financial Support: K01DA042950, 1P50CA180905

Name of Sponsor (If you are NOT) a CPDD Member: Adam Leventhal

Email Address of Sponsor : adam.leventhal@usc.edu

Prefix: Ms.

First Name: Zhi

Last Name: Yang

Degrees: MA MD Ph.D etc:: MS

Email: zhiyang@usc.edu

Company Affiliation: University of Southern California

Mailing Address: 2001 N. Soto Street

City: Los Angeles

State: CA

Zip/Postal: 90032

Country: United States

Phone: 3125325936

ID: 27
Sexual trauma history is associated with reduced orbitofrontal network strength in stimulant-dependent women

Tasha Poppa, University of Southern California, npoppa@usc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Other Drug Category: Polydrug

Topic: Imaging

Other Topic: Female-only SUD population

Abstract: Aim: Substance use disorders (SUDs) are highly comorbid with post-traumatic stress disorder (PTSD). PTSD-SUD comorbidity is associated with greater functional impairments and relapse risk. Women with SUDs experience markedly higher rates of trauma and PTSD compared to men with SUDs, particularly due to sexual and domestic abuse. Despite the strong association between trauma exposure and SUDs, the neurobiological correlates are understudied, particularly among females with SUDs. However, there is indication of abnormal somatic and interoceptive processing in women with PTSD. The present study examines interoception-linked differences in intrinsic brain networks in a group of women with SUDs and varying histories of trauma exposure, some of whom have a current PTSD diagnosis. Methods: Pre-intervention data were acquired from a subset (N=43) of women in SUD residential treatment recruited for a mindfulness-based intervention efficacy clinical trial. Participants diagnosed with PTSD (n = 14) or not (n = 29) performed a task which involved attending to the somatic and visceral sensations of the breathing cycle (interoception) while undergoing a functional MRI (fMRI) scan. FMRI analysis employed independent components analysis and dual regression. First, we tested differences in functional connectivity of interoception-modulated functional networks among those with and without PTSD. Second, we tested associations between network strength and lifetime sexual violence exposure across all participants on networks that showed significant group differences. Results: An orbitofrontal (OFC) network significantly differentiated the groups. Specifically, PTSD diagnosis was associated with reduced functional connectivity of the OFC network with the precuneus, mid-posterior insula, lateral prefrontal cortex and angular gyrus. OFC network strength was inversely associated with sexual violence exposure over-and-above the contribution of PTSD status alone. Conclusion: Our findings provide a novel network-level account of brain activity associated with PTSD among women with SUDs. Future work will examine possible functional and clinical correlates of the observed orbitofrontal network integration abnormalities.

Willing to present orally: Yes

Financial Support: Funding support provided by a grant from the National Institute on Drug Abuse and the National Institute on Alcohol Abuse and Alcoholism (R01DA038648 to H.A. and D.B.) Additional support from the National Science Foundation Graduate Research Fellowship Program (NSF GRFP) (DGE-1418060 to Tasha Poppa)

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Hortensia Amaro

Email Address of Sponsor : hamaro@fiu.edu

Prefix: Ms.

First Name: Tasha

Last Name: Poppa

Email: npoppa@usc.edu

Company Affiliation: University of Southern California

Mailing Address: 3641 Watt Way

Address 2: Hedco Neuroscience Bldg Suite HNB B27

City: Los Angeles

State: CA

Zip/Postal: 90089

Country: United States

Phone: 310-621-4815

ID: 28
Acute effects of stimulant drugs on actigraphy-based sleep parameters in rhesus monkeys

Lais Berro, University of Mississippi Medical Center, berro.lf@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Stimulants

Topic: Other

Other Topic: Sleep

Abstract: AIM Amphetamine-type stimulants affect monoaminergic pathways that play a critical role in sleep-wake cycles. Dopaminergic mechanisms are thought to mediate the sleep-disrupting effects of stimulant drugs. However, recent findings indicate that dopamine regulation is not sufficient to explain the effects of stimulant drugs on sleep, and that serotonin might play a more prominent role in this phenomenon. The aim of the present study was to investigate the effects of stimulant drugs with distinct affinities for dopamine (DAT) vs serotonin (SERT) transporters (DAT/SERT ratio methylphenidate >> amphetamine > methamphetamine), on sleep-like parameters evaluated with actigraphy in adult male rhesus macaques (Macaca mulatta, n=5). METHODS Actigraphy (Actiwatch) monitors were attached to the monkeys' collars, and actigraphy recording was conducted during baseline conditions and after the administration of acute intramuscular injections of saline (vehicle), methamphetamine (0.03–1.0 mg/kg), (+)amphetamine (0.1–1.0 mg/kg) or methylphenidate (0.1–0.56 mg/kg) at 9am or 4:30pm (1h30 prior to lights off). RESULTS Morning and afternoon treatments with methamphetamine and amphetamine disrupted sleep, dose-dependently decreasing average sleep efficiency (methamphetamine: p=0.01 and p=0.04; amphetamine: p=0.03 and p=0.04, respectively) and increasing average sleep latency (methamphetamine: p=0.007 and p=0.02; amphetamine: p=0.01 and p=0.02, respectively). Morning methylphenidate administration did not significantly alter sleep at the doses tested in the present study (sleep efficiency: p=0.71; sleep latency: p=0.53). Afternoon administration of methylphenidate significantly increased average sleep latency only (p=0.04), without altering sleep efficiency (p=0.3). CONCLUSION Our findings show that stimulant drugs had differential effects on sleep, which could be explained by their distinct dopamine to serotonin transport inhibition profiles. Serotonergic mechanisms potentially may account for the effects of stimulant drugs on sleep, and targeting the serotonergic system may represent a novel treatment strategy for stimulant-induced sleep disruption. SUPPORTED BY USPHS grant DA011792 and UMMC Research Enhancement Funds.

Willing to present orally: Yes

Financial Support: USPHS grant DA011792 and UMMC Research Enhancement Funds.

Name of Sponsor (If you are NOT) a CPDD Member: James K. Rowlett

Email Address of Sponsor : jrowlett@umc.edu

Prefix: Dr.

First Name: Lais

Middle Initial: F

Last Name: Berro

Degrees: MA MD Ph.D etc:: Ph.D.

Email: berro.lf@gmail.com

CC Email: lberro@umc.edu

Company Affiliation: University of Mississippi Medical Center

Mailing Address: 402 Charmant Pl

City: Jackson

State: MS

Zip/Postal: 39157

Country: United States

Phone: +16015064643

Membership Year: 2018

Sponsor: Dr. Leonard Howell, PhD

Travel Award: 2017

Research Interests: Behavioral Pharmacology,Pharmacology

Date of Membership: 11.16.18 approved

ID: 29
Leveraging the emergency department visit to debunk myths on HIV risks among substance-using African American women

Mandy Hill, University of Texas Health Science Center, mandy.j.hill@uth.tmc.edu

---

Abstract Category: Program Descriptions

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: use of alcohol and/or illicit drugs

Topic: Prevention

Abstract: Aim: The aim is to launch the first video log (VLOG)-based HIV prevention intervention for African American (AA) women who acknowledge active substance use during an emergency department (ED) visit. AA women in the US are more at risk of becoming HIV positive than woman in any other race. Substance use heightens sexual risk taking, substantiating the public health need for HIV prevention interventions for this population. Methods: The intervention involves a novel, cutting-edge way to provide HIV prevention messages to AA women via a YouTube channel, a social medium that the current culture relies heavily on social media for news and information gathering. Potential myths on HIV transmission were discovered in two former HIV prevention projects that enrolled AA women during an ED visit who were vulnerable to HIV through both condomless sex and substance use. Those projects used in-depth interview methodology and surveys with intervention components. Known myths included these quotes: 'Only "dirty" people get STIs' and 'If you're sexual partner has an STI, you will see it'. A short series of vlogs created by an AA medical student will present these known myths followed by corrective information like, 'Many STIs may not be visible with the naked eye – some develop slowly and have minimal symptoms'. A pre-post assessment of transmission knowledge in tandem with vlogs will provide an educational intervention on HIV transmission using a tablet-device during an ED visit. Conclusions: VLOGs will resonate with AA women and dispel myths on HIV transmission, raise awareness of the compounded risk of concurrent substance use with condomless sex, and provide facts to reduce recreational substance use and inform healthy sexual decision making. The proposed program expands the utility of social media as a medium for brief interventions and can benefit diverse settings for current and future generations.

Willing to present orally: Yes

Financial Support: Proposal conceptualization is based on findings of a career development award from the American Psychological Association (R25MH83635) and Center for AIDS Research development award (AI36211 NIAID).

Name of Sponsor (If you are NOT) a CPDD Member: Angela Stotts, PhD

Email Address of Sponsor : Angela.L.Stotts@uth.tmc.edu

Prefix: Dr.

First Name: Mandy

Middle Initial: J

Last Name: Hill

Degrees: MA MD Ph.D etc:: DrPH, MPH

Email: mandy.j.hill@uth.tmc.edu

CC Email: mandy.j.hill@uth.tmc.edu

Company Affiliation: University of Texas Health Science Center

Mailing Address: 6431 Fannin St

Address 2: JJL 431

City: Houston

State: TX

Zip/Postal: 77030

Country: United States

Phone: 7135007661

Biography: Dr. Hill is the first research track faculty member in the department. She offers public health based, HIV/STI prevention interventions to a vulnerable population seeking care in the emergency department (i.e. young adult, minority women), teaches future clinicians about strategies to incorporate public health principles within their practice, and engages in public health initiatives from local to international levels. Publication of 27 peer reviewed manuscripts, 14 of which she first authored, alongside multiple keynote presentations both internationally and nationally in diverse areas addressing health disparities among minority populations, and extramural funding support through the NIH, SAMHSA, CDC, and industry sponsors during her tenure here at UTHealth attest to her scientific contributions to date.

Sponsor: Dr. Jean M. Bidlack and Dr. Jay McLaughlin

Research Interests: Clinical Drug Development,Treatment

Date of Membership: 11.16.18 approved

ID: 30
National treatment admissions with opioids and benzodiazepines as drugs of abuse

Cynthia Arfken, Wayne State University, carfken@med.wayne.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Treatment

Abstract: Aim: Opioids and benzodiazepines are increasingly involved in drug overdose deaths. Policy efforts to reverse this trend include improving access to treatment. However, knowledge about admissions with opioids and benzodiazepines (co-abusing admissions) compared to opioids admissions without benzodiazepines (opioid) is needed to plan expansion. Methods: US national treatment admissions (TEDS-A) for most recent available years (2015 and 2016) and published regional benzodiazepine prescribing were used. Due to >1.5 million admissions per year, statistical testing was not used. Instead, factors differing by >10% (e.g., 30% versus 41%) between opioid and co-abusing 2016 admissions were highlighted only if replicated using 2015 data. Co-abusing admissions with opioid versus benzodiazepine as primary drug of abuse were also compared. Results: Co-abusing compared to opioid admission cases were more likely to have: 3 drugs of abuse, psychiatric problems, proportionately more admissions in the Northeast US and fewer in the West, and more likely admitted to detoxification and less likely to outpatient services. Co-abusing admissions with opioid as primary were more likely to involve heroin, injection drug use and receive Medication-Assisted Treatment than co-abusing admissions with benzodiazepines as primary. These latter two groups displayed no robust differences in frequency of use or age at first use by primary versus secondary drug of abuse. Stratified analysis failed to eliminate these differences. The West had lowest and the South had the highest benzodiazepine prescribing rate. Conclusion: The differences detected between co-abusing and opioid admissions included regional differences in admissions reflecting some benzodiazepine prescribing differences, greater utilization of detoxification than outpatient services, and elevated psychiatric problems that need objective assessment. Differences were also noted by primary drug of abuse even within co-abusing admissions. Planning co-abusing admission expansion will require more detailed information than available from national treatment admission data.

Willing to present orally: No

Financial Support: NIH R21 DA044946, Helene Lycaki/Joe Young, Sr. Funds (State of Michigan), and Detroit Wayne Mental Health Authority

Prefix: Dr.

First Name: Cynthia

Middle Initial: L.

Last Name: Arfken

Degrees: MA MD Ph.D etc:: Ph.D.

Email: carfken@med.wayne.edu

Company Affiliation: Wayne State University

Contact Title: Professor

Mailing Address: 3901 Chrysler Service Drive, Ste 1B

City: Detroit

State: MI

Zip/Postal: 48201

Country: United States

Phone: (313) 993-3490

Fax: (313) 577-8823

Membership Year: 2000

Sponsor: Chris Ellyn Johanson & Charles R. Schuster

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 31
Utilization of web-based evidence-based program registers by state behavioral health departments

Stephen Magura, Western Michigan University, stephen.magura@wmich.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Any drug or alcohol

Topic: Other

Other Topic: Evidence-based programs or practices

Abstract: AIM. To determine the extent and types of utilization of web-based evidence-based program registers (EBPRs) by state departments responsible for behavioral health programming and practices in the areas of addiction, mental health and child welfare. METHODS. "Web scraping" was employed to identify references to any of 27 web-based EBPRs on the websites of 102 state departments in the 50 states responsible for overseeing addiction, mental health and/or child welfare programs. An advanced google search technique was used to search state department websites (including posted documents) for the names of EBPRs and their acronyms. RESULTS. There were 2,885 total references to the 27 EBPRs. The registers cited most frequently were: National Registry of Evidence -based Programs and Practices [NREPP] (32% of total); Cochrane Collaboration (28%); Suicide Prevention Resource Center [SPRC] (19%); OJJDP Model Programs Guide (4%); California Evidence-based Clearinghouse for Child Welfare (4%). Others were 3% or less. The references were most frequently classified as: register developed a usable product (e.g., curriculum) related to EBP (15%); register is cited in a report or other document relating to a behavioral health problem (15%); register is listed as a resource for the public (11%); registry is described for a constituency (8%); evidence in the register supports a particular treatment program or approach (7%); evidence in the register supports a particular prevention program or approach (7%). CONCLUSION. Except for several high-profile registers, state departments responsible for behavioral health programming seem to make little use of a large majority of existing EBPRs, as evidenced by few references on their official websites. However, the ways in which the registers are used is consistent with their intent, which indicates that increased publicization of EBPRs as an important resource for the behavioral health field should be a priority, especially now that NREPP has been discontinued.

Willing to present orally: No

Financial Support: Grant # R01 DA042036 from the National Institute on Drug Abuse.

Prefix: Dr.

First Name: Stephen

Last Name: Magura

Degrees: MA MD Ph.D etc:: Ph.D.

Email: stephen.magura@wmich.edu

Company Affiliation: Western Michigan University

Contact Title: Director

Mailing Address: 1903 W. Michigan Ave.

City: Kalamazoo

State: MI

Zip/Postal: 49008-5237

Country: United States

Phone: (269) 387-5895

Fax: (269) 387-5923

Membership Year: 1997

Sponsor: Edward Senay & Martin Iguchi

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 32
Regular cannabis use is associated with adverse cardiovascular outcomes: Electronic health record findings

Theresa Winhusen, University of Cincinnati, winhusen@carc.uc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Other

Other Topic: Health outcomes associated with substance use

Abstract: Aim: Cannabis use is rising in the U.S. and, thus, understanding the potential impact of cannabis use on health outcomes is increasingly important. This study evaluated the associations between cannabis use and cardiovascular health. Methods: Analysis of a limited dataset obtained through IBM Watson Health Explorys, a platform integrating electronic health record data. Matched controls were defined for cannabis-using patients using Mahalanobis distance within propensity score calipers. All patients had at least: one recorded blood pressure measurement and one blood chemistry lab result in the MetroHealth System (Cleveland, Ohio). Analyses controlled for demographic factors and other substance use disorders (tobacco, alcohol, opioid, cocaine). The cannabis-use patients had an encounter diagnosis of cannabis abuse/dependence and/or two or more cannabis-positive urine drug screens (n=8,944). Control patients, who did not have a cannabis-related encounter diagnosis or any cannabis-positive urine drug screens, were matched to the cannabis-use patients on demographics, residential zip code median income, and body mass index (n=8,944). Outcomes were encounter diagnosis (yes/no) of cardiovascular risk factors (atherosclerosis, diabetes mellitus, hypercholesterolemia, hypertension), cardiovascular outcomes (cerebrovascular accident, heart arrhythmia, myocardial infarction, subarachnoid hemorrhage), and all-cause mortality. Results: Cannabis use was associated with significantly greater risk of atherosclerosis (aOR=3.32), cerebrovascular accident (aOR=1.73), heart arrhythmia (aOR=1.31), myocardial infarction (aOR=2.54), subarachnoid hemorrhage (aOR=5.68) and all-cause mortality (aOR=2.06). Cannabis use was associated with significantly lower risk of diabetes mellitus (aOR=0.65). Conclusion: Cannabis use is associated with significantly greater risk of adverse cardiovascular diagnoses and overall death. Future research to understand the potential impact of cannabis use on cardiovascular health and mortality seems warranted.

Willing to present orally: Yes

Financial Support: National Drug Abuse Treatment Clinical Trials Network (NIDA CTN: the Ohio Valley Node Network: UG1DA013732)

Prefix: Dr.

First Name: Theresa

Last Name: Winhusen

Degrees: MA MD Ph.D etc:: Ph.D.

Email: winhusen@carc.uc.edu

Company Affiliation: University of Cincinnati

Mailing Address: 3131 Harvey Avenue

Address 2: Suite 104

City: Cincinnati

State: OH

Zip/Postal: 45229

Country: United States

Phone: 513 585 8292

Fax: (513) 585 8278

Membership Year: 2010

Sponsor: Dr. George Woody, and Bryon Adinoff

Research Interests: Molecular Biology Pharmacology Behavioral Pharmacology

ID: 33
CB1 Agonist (CP-55940) decreases sign-trackingbehavior in male rats

Ali Gheidi, University of Michigan Medical School, acgheidi@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Other (specify)

Other Drug Category: Incentive salience, Individual Differences

Topic: Neurobiology

Abstract: Gheidi, A., Froelich, BN., Cope, LM., Fitzpatrick, CJ., Atkinson, RL., Barcelo, CN, Morrow, JD Understanding the neurobiology of individual differences in addiction liability is important for improving clinical outcomes. One procedure that can be used to predict individual vulnerability to addiction-like behavior in rats is Pavlovian conditioned approach (PCA), in which a lever presentation is paired with response-independent delivery of rewards (e.g., food pellets). This results in two types of approach behaviors: “goal-tracking” involves approaching and engaging the site of food delivery during lever presentation, whereas “sign-tracking” involves interacting with the lever extensively, indicating that the lever has been imbued with motivational salience. Previous work has shown that sign-tracking is associated with faster acquisition of drug self-administration, increased preference for drugs over food, and greater drug-seeking reinstatement. Sign- but not goal-tracking is also accompanied by a large influx of dopamine to the nucleus accumbens. The endocannabinoid system has been shown to regulate ventral tegmental area dopaminergic cell firing, so we hypothesized that individual differences in cannabinoid activity could contribute to sign- vs goal-tracking phenotypes and therefore influence vulnerability to addiction. To test sensitivity of sign-tracking to cannabinoid activity, we injected rats with a CB1 agonist (CP-55940 10 ug/kg, 50 ug/kg, 100 ug/kg, or saline vehicle) over 7 days during PCA training. Results showed a dose-dependent decrease in sign-tracking (number of lever presses: vehicle > medium and high dose [p=.016 and p=.001, respectively]; low > high dose [p=.028]). In the second experiment, rats were phenotyped as sign- or goal-trackers, and CB1/FAAH mRNA was quantified using in situ hybridization. Results showed a modest elevation in CB1 mRNA in the prelimbic cortex of sign-trackers compared to goal-trackers. These results indicate that cannabinoid activity can influence incentive salience attribution, and individual differences in the endocannabinoid system may therefore have relevance for addiction liability.

Willing to present orally: No

Financial Support: NIDA T32DA007268 to AG Department of Defense (DoD) National Defense Science and Engineering Graduate Fellowship (NDSEG) [CJF] and National Institute on Drug Abuse (NIDA; K08 DA037912-01) [JDM].

Prefix: Dr.

First Name: Ali

Last Name: Gheidi

Email: acgheidi@gmail.com

Company Affiliation: University of Michigan Medical School

Mailing Address: 109 Zina Pitcher Place

Address 2: Room 5047

City: Ann Arbor

State: MI

Zip/Postal: 48109

Country: United States

Phone: 734-764-4283

ID: 34
Patterns of polysubstance use and anxiety sensitivity among adults with sedative misuse

Victoria Votaw, University of New Mexico, vvotaw@unm.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Epidemiology

Abstract: Introduction: Overdose deaths involving sedatives (e.g., benzodiazepines) in combination with alcohol and/or opioids have increased over the past decade, underscoring the need for targeted interventions to reduce sedative misuse among those with alcohol and opioid misuse. Greater levels of polysubstance use and anxiety sensitivity—the fear of anxiety-related symptoms and sensations—have both been linked to sedative misuse in alcohol- and opioid-misusing populations. The present study included individuals in substance use disorder treatment who reported past-month sedative misuse and aimed to (1) identify patterns, or latent classes, of polysubstance use, and (2) examine the association between anxiety sensitivity and identified patterns. Methods: Participants were adults receiving inpatient detoxification treatment (primarily for alcohol and opioid use disorders) who reported past-month sedative misuse (N = 425; 69.4% male). Participants completed self-report measures, including the Brief Addiction Monitor assessing past-month substance use, the Anxiety Sensitivity Index-3, and the Overall Anxiety Severity and Impairment Scale. Latent class analysis was utilized to identify patterns of past-month polysubstance use. Anxiety sensitivity was included as a predictor of class membership, controlling for age, gender, and anxiety symptoms. Results: We identified two classes: (1) high polysubstance use (i.e., high probabilities of misusing alcohol, marijuana, cocaine, heroin, and prescription opioids; 77.2% of the sample) and (2) moderate polysubstance use (i.e., high probabilities of binge alcohol use and moderate probabilities of prescription opioid and marijuana misuse; 22.8%). Higher anxiety sensitivity (OR=1.03, 95% CI=1.00, 1.06, p=0.032) was associated with greater odds of membership in the moderate polysubstance use class, as compared to the high polysubstance use class. Conclusion: A majority of those with sedative misuse were classified in the high polysubstance use class. Addressing polysubstance use among those with sedative misuse is critical to reduce overdose deaths involving sedatives. Those with moderate levels of polysubstance use might particularly benefit from interventions targeting anxiety sensitivity.

Willing to present orally: Yes

Financial Support: N/A

Prefix: Ms.

First Name: Victoria

Middle Initial: R

Last Name: Votaw

Email: vvotaw@unm.edu

CC Email: torivotaw@gmail.com

Company Affiliation: University of New Mexico

Mailing Address: 1 University of New Mexico

City: Albuquerque

State: NM

Zip/Postal: 87131

Country: United States

Phone: 502-542-8218

Membership Year: 2018

Sponsor: Dr. R. Kathryn McHugh, PhD

Travel Award: 2018

Research Interests: Epidemiology,Treatment

ID: 35
Smokers with opioid use disorder may have worse drug use outcomes after varenicline than nicotine replacement

Damaris Rohsenow, Brown University , damaris_rohsenow@brown.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Other

Other Topic: Comorbid SUD

Abstract: AIM. Smokers with opioid use disorder (OUD) have little success with cessation, possibly due to interactions between nicotine and opioid systems. The aim of this study was to compare smokers with OUD versus non-opioid use disorders (NOUD) for response to smoking treatment. METHODS. A previous study compared 12 weeks (plus a 1-week dose run-up) of varenicline (VAR) versus 12 weeks of nicotine patch (NRT), with smoking and substance use assessed at 3 and 6 months. Secondary analyses compared diagnostic groups for pretreatment smoking, intolerance of physical discomfort (breath holding and self-reported smoking withdrawal discomfort), medication adherence, smoking outcomes (by medication), and substance use outcomes at 3 and 6 months (by medication). RESULTS. At pretreatment, smokers with OUD had significantly more drug use days but did not differ in alcohol or smoking measures. Smokers with OUD had significantly fewer days adherent with capsules but not with patches. While smoking and heavy drinking days at outcome did not differ by diagnosis, smokers with OUD had significantly more drug use days from 4-6 months when assigned to VAR (16.4 days) than to NRT (8.1 days). Participants with OUD held their breath significantly longer than those with NOUD. CONCLUSION. Results suggest that NRT may be a more favorable choice for these smokers than VAR due to lower adherence with capsules and possibly better drug use outcomes. The ability of smokers with OUD to tolerate discomfort is possibly due to the medication-assisted treatment used by some. This novel comparison needs repeating with more participants.

Willing to present orally: Yes

Financial Support: This work was supported by the National Institute on Drug Abuse (grant numbers 1R01DA024652) and by a Senior Career Research Scientist Award from the Department of Veterans Affairs to DJR.

Prefix: Dr.

First Name: Damaris

Middle Initial: J.

Last Name: Rohsenow

Degrees: MA MD Ph.D etc:: Ph.D.

Email: damaris_rohsenow@brown.edu

Company Affiliation: Brown University

Contact Title: Professor (Research)

Mailing Address: Box G-S121-5

City: Providence

State: RI

Zip/Postal: 02912

Country: United States

Phone: 401-863-6648

Fax: (401) 863-6697

Membership Year: 1995

Sponsor: J. Hughes and S. Higgins

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 36
Predicting opioid utilization following cesarean section

Karsten Bartels, University of Colorado, karsten.bartels@ucdenver.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: AIM Despite being the most commonly performed surgical procedure in the United States, no evidence-based guidelines exist for opioid prescribing after Cesarean section. We hypothesized that patient and/or procedural characteristics would be associated with high versus low self-reported opioid intake after discharge. These factors could be used for the development of evidence-based prescribing guidelines, to reduce overprescribing and the potential harm of excess opioids in the community. METHODS This prospective cohort study quantifies opioid utilization for four weeks following discharge from the hospital after Cesarean section. Pre-discharge characteristics were obtained from the electronic medical record, and total opioid intake after discharge was obtained from four weekly surveys sent to study participants. Opioid utilization is quantified in milligram morphine equivalents (MME). Binomial regressions and Poisson regressions were performed for all pre-discharge characteristics to evaluate for associations with high versus low opioid utilization after discharge. RESULTS 203 patients completed at least one survey and were included in the study. Participants were divided into two groups, high MME (greater than 75 MME; n=113) and low MME (less than or equal to 75 MME; n=90), based on total reported MME taken over the first four weeks post-discharge. Patients who reported low opioid utilization after discharge took on average 44% less MME in the 24-hours prior to discharge, when compared to those who reported high opioid utilization after discharge (33.0 vs 59.3, mean 24-hour prior to discharge MME, $p < 0$ .0001). CONCLUSION Knowledge of pre-discharge opioid utilization should be used to inform individualized opioid prescribing practices. Evidence-based guidelines for oral analgesia after Cesarean section could help optimize non-opioid analgesics and reduce opioid utilization. Further studies are needed to evaluate the impact of implementing such guidelines on provider prescribing practices and potential under-treatment of pain.

Willing to present orally: Yes

Financial Support: K23DA040923 to Karsten Bartels

Name of Sponsor (If you are NOT) a CPDD Member: Susan Mikulich-Gilbertson

Email Address of Sponsor : Susan.Mikulich@ucdenver.edu

Prefix: Dr.

First Name: Karsten

Last Name: Bartels

Degrees: MA MD Ph.D etc:: MD, PhD

Email: karsten.bartels@ucdenver.edu

Company Affiliation: University of Colorado

Mailing Address: 12401 E. 17th Avenue

Address 2: Leprino Office Building, 7th Floor, MS B-113

City: Aurora

State: CO

Zip/Postal: 80045

Country: United States

Phone: 720-848-6752

Fax: 720-848-7375

Travel Award: NIDA Diretor's 2018

ID: 37
Syringe exchange uptake and HIV risk behaviors among rural people who inject drugs

Hilary Surratt, University of Kentucky, surratt@nova.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Epidemiology

Abstract: Aims: Syringe exchange programs (SEPs) have been implemented widely in Kentucky since 2015, following an HIV outbreak among prescription opioid injectors in neighboring southern Indiana. Many of these SEPs are located in underserved rural communities that experience critical disparities in treatment and harm reduction services for people who inject drugs (PWID). This presentation examines uptake of SEPs in 3 rural Kentucky counties. Methods: Data are drawn from an ongoing NIDA-funded epidemiologic study enrolling a sample of 350 rural PWID, approximately half of whom are current SEP users. Eligible participants are past month drug injectors who are at least 18 years of age, recruited using Respondent-Driven Sampling. Enrollment occurs in geographically dispersed health department SEPs, as well as community-based locations that serve PWID. Enrollment includes a brief eligibility screen and informed consent, followed by a structured face-to-face interview. Analyses examined patterns of SEP utilization and barriers to SEP uptake. Results: 186 SEP participants were enrolled between February and October 2018. The sample has a median age of 36 years, is 52.2% male, and 91.9% are non-Hispanic white. 54.2% self-reported being HCV+. The primary drug of injection is methamphetamine (45.2%), followed by non-prescribed buprenorphine (.258%), heroin (16.1%), and non-prescribed opioids (11.3%). 26.3% reported a first time SEP visit upon interview, and a median of 4 SEP visits in the past 6 months. Primary heroin injectors reported significantly fewer SEP visits, and lower sterile syringe coverage, compared to methamphetamine injectors. Transportation was the most commonly reported barrier (17.7%) to attending the SEP, regardless of site or primary drug. Conclusions: We observed substantial poly-drug use among rural PWID, and suboptimal uptake of SEPs among PWID who would benefit from regular attendance at these service programs. Innovations to integrate mobile SEP services in rural areas appears critical for improving uptake and reducing injection-related risk behaviors.

Willing to present orally: Yes

Financial Support: This work was supported by NIH Grant R21 DA044251.

Prefix: Dr.

First Name: Hilary

Middle Initial: L.

Last Name: Surratt

Degrees: MA MD Ph.D etc:: Ph.D.

Email: surratt@nova.edu

CC Email: hilary.surratt@uky.edu

Company Affiliation: University of Kentucky

Contact Title: Associate Professor

Mailing Address: 740 South Limestone Avenue

Address 2: Suite J516

City: Lexington

State: KY

Zip/Postal: 40536

Country: United States

Phone: 8592184964

Membership Year: 2011

Sponsor: Dr. Theodore J. Cicero and Steven P. Kurtz

ID: 38
Craving for opioids affects retention in treatment and adherence to antiretroviral therapy in HIV positive patients with OUD stabilized on naltrexone

George Woody, University of Pennsylvania, woodyg@pennmedicine.upenn.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim: We demonstrated that extended release naltrexone implant (NI) improves retention of HIV positive patients with opioid use disorders (OUD) in both addiction care (AC) and antiretroviral therapy (ART) thus providing a lower HIV viral load (VL). This secondary data analysis is focused on the effect of craving for opioids on the retention in treatment, adherence to ART, and VL. Methods: Recently detoxified, HIV+ patients with an OUD starting ART were randomly assigned to 12-months treatment with NI + oral placebo (n=100), or oral naltrexone (ON) + placebo implant (n=100). Monthly assessments included a Visual Analog Scale of Craving for opioids, urine testing, and VL at 6 and 12 months. Adherence to ART was measured with the AARDEX technique. Outcomes were analyzed using ANOVA repeated measures with Tukey test for between group comparisons for craving, and Cox regression analysis to evaluate craving effects on retention in treatments. Results: Craving scores declined dramatically compared to baseline in the NI group throughout the study. In the ON group, significant differences in craving compared to baseline were noted at weeks 6, 10, 14 and 16. There was a significant Main Group effect (F1,167=5,28; p=0,0228) and Time-by-Group interaction (F18,1863=2,12; p=0,0039) wherein the NI demonstrated a greater anti-craving effect than the oral formulation. Cox regression analysis demonstrated better retention in AC (HR =1,022 [95%CI:1,015-1,028]; p < 0 ,0001) and ART (HR=1,023 [95%CI: 1,016-1,029]; p < 0 ,0001) in patients with lower craving scores. There was also a positive correlation between reduction in craving and the number of ART pills taken according to AARDEX data (Ro Spearmen =0,424; p < 0 ,0001). No effect of craving on VL was found. Conclusion: HIV-positive opiate addicts on NI had less craving for opioids.

Willing to present orally: Yes

Financial Support: NIDA; Naltrexone implant provided at reduced cost by Fidelity Capital

Prefix: Dr.

First Name: George

Middle Initial: E.

Last Name: Woody

Degrees: MA MD Ph.D etc:: M.D.

Email: woodyg@pennmedicine.upenn.edu

Company Affiliation: University of Pennsylvania

Contact Title: Professor of Psychiatry

Mailing Address: 3535 Market Street, Suite 500

City: Philadelphia

State: PA

Zip/Postal: 19104

Country: United States

Phone: 2157467702

Fax: (215) 7462989

Membership Year: 1992

Research Interests: Psychiatric/Medical Morbidity,Treatment

ID: 39
Feasibility and acceptability of take-home naloxone for people released from prisons in New South Wales, Australia

Sarah Larney, National Drug and Alcohol Research Centre, s.larney@unsw.edu.au

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Other

Other Topic: Overdose prevention

Abstract: Aim: People with a history of opioid use disorder are at extreme risk of overdose in the weeks immediately following release from prison. Amid efforts to improve access to naloxone among people who use opioids and their close contacts, we aimed to assess the feasibility and acceptability of implementing a take-home naloxone program for this population. Methods: Cross-sectional survey of people with a history of opioid use who had been released from prison within the previous month (n=105), and semi-structured interviews with key clinical and operational staff of Corrective Services NSW (CSNSW) and Justice Health and Forensic Mental Health Network (JH&FMHN; providers of health care in custody). Results: Among recent releasees, there was high awareness of the elevated risk of overdose following release, and the potential for naloxone to reverse an opioid overdose. Participants were largely supportive of naloxone training in custody, and of take-home naloxone at release. Participants who were not supportive (n=5) cited concerns about being identified as a person who uses drugs, and uncertainty about the effectiveness of naloxone. Despite high levels of support for take-home naloxone, 83% of releasees stated that obtaining naloxone would be a low priority for them at the time of release. Corrective Services staff demonstrated a strong preference for intra-nasal naloxone given their concerns about access to needles. JH&FMHN staff were strongly supportive of introducing naloxone training and supply, and identified strategies for overcoming critical barriers to implementation. Conclusion: There was widespread agreement that naloxone training in custody and distribution at release would be positive. All three groups of participants identified concerns that would need to be addressed to ensure the feasibility of any take-home naloxone program. Continued engagement with CSNSW and JH&FMHN will be essential for ensuring appropriate program design and successful implementation.

Willing to present orally: Yes

Financial Support: This project was supported by Indivior. Sarah Larney, Suzanne Nielsen and Louisa Degenhardt are supported by the National Health and Medical Research Council.

Name of Sponsor (If you are NOT) a CPDD Member: Louisa Degenhardt

Email Address of Sponsor : l.degenhardt@unsw.edu.au

Prefix: Dr.

First Name: Sarah

Last Name: Larney

Degrees: MA MD Ph.D etc:: PhD

Email: s.larney@unsw.edu.au

CC Email: s.larney@unsw.edu.au

Company Affiliation: National Drug and Alcohol Research Centre

Mailing Address: NDARC

Address 2: University of NSW

City: Sydney

State: Australia

Zip/Postal: 2052

Country: Australia

Phone: 478555405

ID: 40
Emergency Department utilisation and cost comparison among people with opioid use disorder prior to, during and after opioid agonist therapy

Nicola Jones, NDARC, UNSW, nicola.jones@unsw.edu.au

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: AIM: People with opioid use disorders have high rates of unplanned health service use such as emergency department (ED) presentation. Engagement in opioid agonist therapy (OAT) may decrease unplanned health service use. We compared the incidence and costs of urgent ED presentations while prescribed OAT to when not on OAT. METHODS: Administrative data for all people receiving OAT in New South Wales (NSW), Australia between 2005 and 2014, were linked to ED presentations and the National Death Index. ED presentation was defined as urgent if triaged as resuscitation, emergency or urgent. For each participant the ED incidence and cost, for the period 2012-2014, were derived for the four stages of OAT: 24 months before OAT (pre-OAT); during OAT, between OAT programs; and post-OAT (defined as 24 consecutive months out of OAT). GEE models estimated the adjusted Incidence Rate Ratio (IRR) for ED presentations per 1,000 person-days for each OAT stage, adjusting for age, gender, year of presentation and geographic remoteness. Costs were based on the 2014-15 National Hospital Cost Data Collection Cost Weights for Urgency Related Groups (URG). Confidence intervals were calculated using bootstrapping. RESULTS: The incidence of urgent episodes was significantly lower during OAT compared to: pre-OAT [IRR (95%CI): 0.56 (0.51-0.61)]; in between [IRR (95%CI): 0.57 (0.53-0.61)]; and post-OAT [IRR (95%CI): 0.54 (0.50-0.58)]. The average cost per person-day for urgent episodes was at least 40% lower during OAT at A$0.95 (95%CI: A$0.93-A$0.97) compared with pre-OAT at A$1.58 (95%CI: A$1.50-A$1.66), in between at A$1.58 (95%CI: A$1.52-A$1.64) and post-OAT costing A$1.76 per person-day (95%CI: A$1.69-A$1.81). CONCLUSION: OAT may be beneficial in reducing ED presentations and costs among people with opioid use disorders, adding to other known benefits of treatment including reduced extra-medical opioid use and lower mortality.

Willing to present orally: Yes

Financial Support: This study was funded by NHMRC Centre of Research Excellence in Injecting Drug Use and, NIDA R01DA1104470. SL has received untied education funding from Indivior. LD has received untied educational funding from Indivior, Mundipharma, and Seqirus. LD, NG and SL are supported by NHMRC Research Fellowships (GNT1135991, GNT1091878, GNT1140938). The National Drug and Alcohol Research Centre at UNSW Australia is supported by funding from the Australian Government under the Substance Misuse Prevention and Service Improvements Grant Fund. MM has received untied educational funding from Pfizer and AbbVie.

Name of Sponsor (If you are NOT) a CPDD Member: Louisa Degenhardt

Email Address of Sponsor : l.degenhardt@unsw.edu.au

Prefix: Mrs.

First Name: Nicola

Middle Initial: R

Last Name: Jones

Degrees: MA MD Ph.D etc:: MSc. BSc.

Email: nicola.jones@unsw.edu.au

Company Affiliation: NDARC, UNSW

Mailing Address: Randwick Campus, Building R3

Address 2: 22-20 King Street

City: Sydney

State: NSW

Zip/Postal: 2031

Country: Australia

Phone: 0421159700

ID: 41
Acute effects of cannabinoids on addiction endophenotypes are moderated by genes encoding the CB1 receptor and FAAH enzyme

Chandni Hindocha, Clinical Psychopharmacology Unit, c.hindocha@ucl.ac.uk

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Genetics

Abstract: Background: Regular cannabis use can increase an individual's risk for addiction. Understanding genetic factors that contribute to cannabis addiction is important, but to date, findings have been equivocal. Single nucleotide polymorphisms in the Cannabinoid receptor 1- gene (CNR1; rs1049353, rs806378) and the Fatty Acid Amide Hydrolase (FAAH) gene (rs324420) have been implicated in the development of addiction. Their relationship to addiction endophenotypes such as drug-cue incentive salience, state satiety and craving after acute cannabinoid administration has not been investigated. Method: Forty-eight cannabis users participated in a double-blind, placebo-controlled, four-way crossover study where they were administered 4 treatments in a randomised order via vaporisation: placebo, Δ9-tetrahydrocannabinol (THC) (8mg), THC+Cannabidiol (CBD) (8mg + 16mg), CBD (16mg). Salience of appetitive cues as assessed by the dot probe task (cannabis, food), state satiety (assessed by the Bodily Symptom Scale's "want to smoke a joint" measure) and cannabis craving (Marijuana Craving Questionnaire) were assessed each day. Participants were genotyped for CNR1 rs1049353, rs806378 and FAAH rs324420. Results: CNR1 rs1049353 GG carriers showed reduced salience to appetitive cues after THC in comparison to CBD administration. GG carriers showed reduced state satiety after THC and THC+CBD administration, in comparison to placebo; A carriers did not vary on either of these measures implicating the A allele in addiction. CNR1 rs806378 CC carriers showed greater bias to appetitive cues in comparison to T carriers but there was no evidence for changes in state satiety. FAAH rs324420 A carriers showed greater bias to appetitive cues after THC, in comparison to CC carriers. FAAH CC carriers showed reduced bias after THC in comparison to CBD. None of the genes modulated craving. Conclusion: These findings show that endocannabinoid system genetics can modulate incentive salience of drug cues and state satiety after acute administration of cannabinoids in healthy individuals.

Willing to present orally: Yes

Financial Support: This research was funded by a Medical Research Council (MRC) Grant (G0800268) to HVC and CJAM. CH and MAPB are supported the National Institute for Health Research University College London Hospitals Biomedical Research Centre (NIHR BRC). MAPB is also funded by a UCL Excellence Fellowship and the British Medical Association Foundation for Medical Research. TPF is funded by a Senior Academic Fellowship from the Society for the Study of Addiction.

Name of Sponsor (If you are NOT) a CPDD Member: Gill Bedi

Email Address of Sponsor : gill.bedi@orygen.org.au

Prefix: Dr.

First Name: Chandni

Last Name: Hindocha

Degrees: MA MD Ph.D etc:: BSc, PhD

Email: c.hindocha@ucl.ac.uk

CC Email: c.hindocha@ucl.ac.uk

Company Affiliation: Clinical Psychopharmacology Unit

Mailing Address: University College London

Address 2: 1-19 Torrington Place

City: London

State: London

Zip/Postal: WC1E 7HB

Country: United Kingdom

Phone: +447707235034

ID: 42
Effects of ascending buprenorphine doses on measures of experimental pain: A pilot study

Suzanne Nielsen, Monash University, suzinielsen@yahoo.com

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Other Topic: Pain

Abstract: Aim: Buprenorphine is widely used in the treatment of opioid use disorder and pain management. Little is known about the analgesic effects of high-dose sublingual buprenorphine, particularly in doses of greater than 8mg, and in people who are tolerant to opioids. The aim of this study was to examine the effect of ascending doses of buprenorphine in patients stabilized on buprenorphine opioid agonist treatment. Methods: The pilot study (n = 7) was a randomised, controlled, double-blind, double-dummy, within-subject crossover study examining cold-pressor threshold and tolerance testing under different buprenorphine dose conditions. Each participant attended three sessions (in random order) to test the analgesic effect of buprenorphine in their usual dose (100%), 150% and 200% of their usual daily dose. Results: No significant effects of increasing buprenorphine dose was see on experimental pain measures. Expected physiological effects on pupil size and pulse were observed with increasing dose. No safety concerns with delivering 150 and 200% of the dose were noted. Conclusion: This pilot study suggests that a ceiling on analgesic effects may be observed in people maintained on buprenorphine, though larger studies are required to confirm this finding.

Willing to present orally: Yes

Financial Support: The lead author is the recipient of an NHMRC Research Fellowship

Name of Sponsor (If you are NOT) a CPDD Member: Lead author is CPDD member

Prefix: Dr.

First Name: Suzanne

Last Name: Nielsen

Degrees: MA MD Ph.D etc:: BPharm(Hons), PhD MPS

Email: suzinielsen@yahoo.com

CC Email: suzanne.nielsen@monash.edu

Company Affiliation: Monash University

Mailing Address: Monash Addiction Research Centre

City: Melbourne

State: Australia

Zip/Postal: 3199

Country: Australia

Phone: +61 437629158

Membership Year: 2012

Sponsor: Dr. Walter Ling and Dr. Richard Rawson

Research Interests: Behavioral Pharmacology,Pharmacology

ID: 43
Half of the pregabalin misuse among methadone maintenance patients is for pain relief

Einat Peles, Tel Aviv Sourasky Medical Center & Sackler Faculty of Medicine, Tel Aviv University, einatp@tasmc.health.gov.il

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Pregabalin

Topic: Treatment

Abstract: AIM: pregabalin, an analgesic medication indicated for neuropathic pain and fibromyalgia, was recently found to be highly misused by patients receiving methadone maintenance treatment (MMT). To understand this phenomenon, a questionnaire and urine tests were compared. METHODS: A self-report questionnaire about usage and knowledge about pregabalin effects, indications and risks was assessed among all current MMT patients in one clinic in Israel. Patients' responses about pregabalin usage were defined as "Never" if responded never or unknown, and "Ever" if responded past-, occasional- or chronic use. Result of pregabalin in one random urine test during the previous 2-4 month was used. RESULTS: Of the 234 participants, 71(30.3%) "Ever" used pregabalin, and 47(20%) tested positive to pregabalin. The proportion of tested positive among the "Ever" group was 42(59.2%) and among the "Never" 4(2.5%). Thirty-nine percent of the subjects knew that pregabalin is an analgesic (8.5% thought a stimulant, 17.9% a sedative, 16.2% an anxiolytic, 17.5% did not know). Total knowledge score was higher among the pregabalin tested-positive compared to tested-negative (4.2±1.9 vs. 3.4±2.2, p=0.02), as among self-reported "Ever" (4.2±1.9) compared with "Never" group (3.3±2.2, p=0.007). Of the "Ever" group, 42.9% obtained it by prescription, and the others from friends or on the black market, 76.5% used it orally, 46.4% used it for pain (13% for pleasure, 17.4% as anxiolytic, 16.7% for other reasons). Of those who knew it is an analgesic, 61.7% used it for pain. Benzodiazepines were abused by 13.6% of the "Never" group, 42.4% of those who used pregabalin for pain, and 68.4% of those who used it for other reasons (p CONCLUSION: pregabalin is highly misused, half of users use it for pain, and others as a substance of abuse. Routine pregabalin monitoring, and specific pain relief intervention are needed.

Willing to present orally: Yes

Financial Support: Adelson Family Foundation

Prefix: Dr.

First Name: Einat

Last Name: Peles

Degrees: MA MD Ph.D etc:: Ph.D.

Email: einatp@tasmc.health.gov.il

CC Email: einatp@tlvmc.gov.il

Company Affiliation: Tel Aviv Sourasky Medical Center & Sackler Faculty of Medicine, Tel Aviv University

Mailing Address: 65 Atzmon Street

City: Reut

State: Israel

Zip/Postal: 7179902

Country: Israel

Phone: (972) 8-9262421

Fax: (972) 8-9262421

Membership Year: 2006

Sponsor: Dr. Mary Jeane Kreek and Dr. Eric Strain

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 44
Pathways into opioid use disorder (examination across three chronological cohorts)

Emily Zhang, Thomas Jefferson University, emily.zhang@jefferson.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: AIM: This study examined pathways into addiction across three birth cohorts of individuals being treated for opioid dependence. METHODS: An initial random sample of 120 (n=40 per cohort) subjects from Jefferson's MAT program yielded 36 respondents. To ensure an adequate sample, convenience sampling was initiated resulting in 23 Baby Boomer (BB), 43 Generation X (GenX), and 24 Millennial (ML) respondents. Interviews regarding drug use history and predictors (120 questions) lasting 25-30 minutes were conducted. Onset age was used to assign position numbers to each drug. After the most common drug occupying position #1 was identified, the most common drug occupying position #2 was identified for that subgroup. The procedure was repeated for drug positions 3 through 6. RESULTS: The BB and GenX pathway was alcohol à nicotine à marijuana à cocaine à NMPOs à heroin. The ML pathway was nicotine à marijuana à [cocaine] or [NMPOs à alcohol à cocaine] or [alcohol à NMPOs/cocaine à cocaine/NMPOs] à heroin. A series of one-way ANOVA analyses was then conducted. Overall latency to opioid use differed between cohorts (p=0.006) with ML latency observed to be 2.14x faster than that of BBs. Latency from the penultimate to final drug also differed between cohorts (p=0.050) with MLs progressing 1.78x faster than BBs from the 2nd to last drug to the final drug. In general, values, socioeconomic status (SES), and health predicted alcohol use; behaviors (i.e. novelty seeking, etc.), gender, family (i.e. conflict level), and SES predicted nicotine use; behaviors, family, and health predicted marijuana and cocaine use; behaviors, SES, and motivators (i.e. reasons for use) predicted NMPO use; and family, motivators, health (including behavioral health), and values predicted heroin use. CONCLUSION: Prevention and treatment should be personalized to target the unique drug initiation order and predictors of early drugs in each birth cohort's drug pathway.

Willing to present orally: Yes

Financial Support: N/A

Name of Sponsor (If you are NOT) a CPDD Member: Karol Kaltenbach

Email Address of Sponsor : N/A

Prefix: Ms.

First Name: Emily

Last Name: Zhang

Degrees: MA MD Ph.D etc:: MS-BMS

Email: emily.zhang@jefferson.edu

CC Email: emily.zhang@jefferson.edu

Company Affiliation: Thomas Jefferson University

Mailing Address: 1020 S. 18th Street

City: PHILADELPHIA

State: PA

Zip/Postal: 19146

Country: United States

Phone: 3024899447

ID: 45
Assessment of the safety and pharmacodynamic (PD) interaction of ANS-6637 and ethanol (EtOH) in male moderate drinkers

Megan Shram, Altreos Research Partners Inc., mshram@altreos.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Drug Interactions

Abstract: AIM: ANS-6637 (ANS) is a prodrug of ANS-548351, a potent and selective inhibitor of alcohol dehydrogenase (ALDH) 2 under development for substance use disorder. As EtOH is socially consumed, this study evaluated the safety/tolerability and PD effects of ascending doses of ANS-6637 in combination with EtOH in male moderate drinkers. METHODS: Randomized, double-blind, placebo [PBO]-controlled, single ascending dose cohort study with 6 planned ANS doses (25-600mg). Subjects were prequalified based on ability to tolerate repeat EtOH (5 drinks) over 2.5h. In the main study, repeat EtOH was administered 2h post ANS-dose. Safety, PK and PD measures (EtOH reaction [ER] assessment, VAS) were collected over 48h. RESULTS: 48 subjects (6 ANS, 2 PBO/cohort) were randomized and all planned ANS doses were administered. Two subjects did not consume all 5 EtOH drinks due to adverse events (AEs; suffocation feeling, chest pressure, flushing). Most AEs were mild, and 1 was severe (flushing). Pulse rate increased with ANS >25mg in combination with EtOH and was higher vs. PBO from 45 - 135m after EtOH consumption (p 25mg, with statistical differences vs. PBO at ≥100mg. ANS was associated with lower scores on feeling/liking alcohol effects vs. PBO, with no consistent dose-response. CONCLUSION: ANS up to 600mg in combination with EtOH (5 drinks) was well-tolerated. Although there was an increased risk of EtOH-related physiologic effects at higher doses, the effects appear to be better tolerated than those of disulfiram, an ALDH inhibitor associated with severe ER and cardiovascular effects when combined with EtOH.

Willing to present orally: Yes

Financial Support: Funded by Amygdala Neurosciences Inc.

Prefix: Dr.

First Name: Megan

Last Name: Shram

Degrees: MA MD Ph.D etc:: Ph.D.

Email: mshram@altreos.com

Company Affiliation: Altreos Research Partners Inc.

Mailing Address: 50 Wanda Road

City: Toronto

State: ON

Zip/Postal: M6P 1C6

Country: Canada

Phone: 14168823720

Membership Year: 2011

Sponsor: Dr. Edward Sellers and Dr. Bruna Brands

Research Interests: Molecular Biology Pharmacology Behavioral Pharmacology

ID: 46
Impact of bodily pain on substance use over time among Reserve and National Guard Soldiers

Bonnie Vest, State University of New York at Buffalo, bvest@buffalo.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: illicit drugs, non-medical use of prescription drugs

Topic: Epidemiology

Abstract: AIM: Military populations have a higher prevalence of pain as compared to their civilian counterparts. They are also more likely than civilians to suffer from severe pain, and at younger ages. Reserve and National Guard (R/NG) soldiers are also at increased risk for substance use compared to other military populations. The goal of this inquiry was to determine if bodily pain was related to increased risk of current substance use over time among R/NG soldiers. METHODS: Data were drawn from Operation: SAFETY (Soldiers and Families Excelling Through the Years), an ongoing study of R/NG soldiers and their partners (N=411 couples). Generalized estimating equations were used to examine the longitudinal impact of baseline bodily pain (parameterized in standard deviations from the mean pain score) on current drug use (illicit and non-medical use of prescription drugs [NMUPD]) over a two-year follow up period among a sub-sample of male R/NG soldiers (n=387). Final models controlled for history of deployment (y/n), years of military service, and depression. RESULTS: Bodily pain was longitudinally associated with increased odds of current drug use (Adjusted Odds Ratio [AOR]: 1.45, p.05). CONCLUSION: In sum, our results indicate that bodily pain among male R/NG soldiers is associated with increased odds of NMUPD, but not illicit drug use, over time. More than half of the soldiers who reported NMUPD reported non-medical use of prescription opioids. Healthcare providers should consider screening for pain and NMUPD among military patients, especially given military cultural norms that encourage minimization of health concerns. Further research is needed to understand the best strategies to address pain among military populations, in order to reduce potential self-medication through NMUPD.

Willing to present orally: Yes

Financial Support: Research reported in this abstract was supported by the National Institute on Drug Abuse of the National Institutes of Health under award number R01DA034072 (GGH) and the National Center for Advancing Translational Sciences of the National Institutes of Health under award number UL1TR001412. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Name of Sponsor (If you are NOT) a CPDD Member: Gregory G. Homish

Email Address of Sponsor : ghomish@buffalo.edu

Prefix: Dr.

First Name: Bonnie

Middle Initial: M.

Last Name: Vest

Degrees: MA MD Ph.D etc:: PhD

Email: bvest@buffalo.edu

Company Affiliation: State University of New York at Buffalo

Mailing Address: 77 Goodell Street

Address 2: Suite 220

City: Buffalo

State: NY

Zip/Postal: 14215

Country: United States

Phone: 716-816-7287

ID: 47
Correlates of health care by hcv status among rural women at community re-entry from jail

Michele Staton, University of Kentucky, College of Medicine, mstindall@uky.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Behavior

Abstract: Aim: The association between drug use and hepatitis C (HCV) among women is exacerbated by injection drug use and shared injection equipment. However, research is limited in understanding factors associated with health care utilization among rural women who are HCV+. This study examines differences in health care among rural women drug users by HCV status during the 12-months following jail release. Methods: This study includes 400 women who were randomly selected, screened, and consented from three rural jails in the Appalachian region of Kentucky. Women were offered antibody testing for HCV by trained research staff. Analyses included bivariate comparisons between women screening positive and negative for HCV antibodies at baseline, as well as a logistic regression model which examined factors associated with having a usual source of health care at 12-month follow-up. Results: About two-thirds (61%) of women followed for 12 months post-release from jail screened positive for HCV. Women who were HCV+ had less education and fewer health problems overall compared to HCV- women. However, HCV+ women rated the availability of health care significantly lower than HCV- women. There was a significant interaction between health care availability and HCV status when predicting having a usual source of care. Specifically, for those who were HCV+, having insurance (for at least one month) increased the likelihood of having a usual source of care during the follow-up period. Conclusion: Over half of women followed from jail to the community reported having a usual source of health care, which did not differ by HCV status. However, among HCV+ rural women, insurance significantly increased the likelihood of having a regular place to go. Implications suggest the importance of community health care at jail release including re-entry planning to include insurance options and linkages to health care, including HCV treatment, for high-risk rural women.

Willing to present orally: No

Financial Support: Research was supported by the National Institute on Drug Abuse of the National Institutes of Health under Award Number R01DA033866.

Prefix: Dr.

First Name: Michele

Last Name: Staton

Degrees: MA MD Ph.D etc:: Ph.D., M.S.W.

Email: mstindall@uky.edu

CC Email: jminor@uky.edu

Company Affiliation: University of Kentucky, College of Medicine

Mailing Address: 141 Medical Behavioral Science Building

City: Lexington

State: KY

Zip/Postal: 40536

Country: United States

Phone: -8593128245

Fax: (859) 323-1030

Membership Year: 2011

Sponsor: Dr. Sharon Walsh and Dr. Carl Leukefeld

Research Interests: Molecular Biology Pharmacology Behavioral Pharmacology

ID: 48
Interacting risks: high-risk network locations and risk behaviors during an HIV outbreak in Athens, Greece

Samuel Friedman, National Development and Research Institute, Inc. , friedman@ndri.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Injecting drug use

Topic: Behavior

Abstract: AIM Since HIV transmission requires risk behavior between an infected and uninfected person, network structures of injection and sexual relationships shape viral transmission rates through communities. Network structures can also be centers of behavioral risk. The Seidman k-cores of large connected components were found to be particularly risky for people who inject drugs (PWID) in 1990s New York. Seidman k-cores are network subsets whose members are each linked to k or more subset members. In any given component, there can be only one 2-core but multiple k-cores with k > 2 (who are all members of the 2-core.) Here, we extend our research to social network locations in Athens 2013-15 (2+ years after its outbreak began) to study our hypothesis that network locations are associated with risk behaviors. METHODS HIV+ “seeds” were recruited from another research project. Additional study participants were members of seeds’ personal risk networks and of network members’ risk networks recruited using a “two steps” algorithm. Participants were interviewed about risk behaviors and network ties. Logistic regressions were computed using SPSS RESULTS 171 of 331 participants were in the Seidman 2-core of a large 241-person component. 2-core members of this component were more likely than the other 134 participants to engage in receptive syringe sharing (OR 1.934) and inject > once per day (OR 3.848); and, among women, to engage in sex work (OR 8.444). Within the large component, higher k-core levels were associated with being more likely to inject > once per day (OR = 1.788). (All p-values CONCLUSION People in highly-linked network locations had higher risk behaviors—a combination conducive to rapid community transmission. Research on determinants of highly-linked risk networks among PWID is needed, as are additional ways to reduce their riskiness. These findings give theoretical justification for network-based intervention development.

Willing to present orally: Yes

Financial Support: This intervention research was supported by the United States (US) National Institute on Drug Abuse (NIDA) grants DP1 DA034989 and P30DA011041. BS was also supported by NIH Research Training Grant #T32AI7384-26. JS was also supported by grants R01 DA033875 and R21 AI118998. TIV was supported by the Clarendon Fund of the University of Oxford. The funding source had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; preparation, review, or approval of the manuscript; and decision to submit the manuscript for publication.

Prefix: Dr.

First Name: Samuel

Middle Initial: R

Last Name: Friedman

Degrees: MA MD Ph.D etc:: Ph.D.

Email: friedman@ndri.org

CC Email: friedman@ndri.org

Company Affiliation: National Development and Research Institute, Inc.

Mailing Address: 71 West 23rd Street, 4th Floor

City: New York

State: NY

Zip/Postal: 10010

Country: United States

Phone: 732 979 9420

Membership Year: 2013

Sponsor: Dr. Danielle Ompad and Dr. Martin Iguchi

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 49
Criminal justice outcomes over 5 years after randomization to buprenorphine-naloxone or methadone treatment for opioid use disorder

Elizabeth Evans, University of Massachusetts, eevans592@yahoo.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM: To compare long-term criminal justice outcomes among participants randomized to buprenorphine or methadone. METHODS: 5-year follow-up was conducted in 2011-14 of 303 opioid-dependent participants entering three opioid treatment programs in California in 2006-09 and randomized to receive buprenorphine/naloxone (n=179) or methadone (n=124). MEASUREMENTS: Study outcomes included arrest based on criminal justice records and self-reported incarceration. Baseline covariates included randomization condition (buprenorphine vs. methadone), age, gender, race/ethnicity, cocaine use, injection drug use, and study site. Treatment status (buprenorphine, methadone, none) during follow-up was included as a time-varying covariate. RESULTS: There was no difference by randomization condition in the proportion arrested (buprenorphine: 55.3%, methadone: 54.0%) or incarcerated (40.9%, 47.3%) during follow-up. Individuals who received either buprenorphine (Odds Ratio, 95% CI: 0.53, 0.36-0.77) or methadone (0.69, 0.53-0.90) during follow-up were less likely to be arrested relative to no treatment. Among methadone-randomized individuals, arrest was less likely with methadone treatment (0.55, 0.38-0.78) during follow-up (relative to no treatment) whereas switching to buprenorphine had a similar likelihood of arrest as receiving no treatment. Among buprenorphine-randomized individuals, arrest was less likely with receipt of buprenorphine (0.48, 0.28-0.81) during follow-up whereas switching to methadone had a similar likelihood of arrest as methadone-randomized individuals receiving no treatment. Likelihood of arrest was also negatively associated with older age (0.98, 0.96-0.99); it was positively associated with Hispanic ethnicity (1.73, 1.13-2.65), cocaine use (1.67, 1.13-2.47), injection drug use (2.21, 1.31-3.73), and study site. CONCLUSION: Continued treatment for opioid use disorder with either buprenorphine or methadone is associated with a reduction in arrests (relative to no treatment), with changes in medication type yielding similar outcomes as no pharmacotherapy. In addition to ongoing pharmacotherapy, addressing cocaine use and risk factors that are unique to Hispanic ethnicity, younger age, and setting are likely to reduce arrests among opioid-dependent individuals. Keywords: buprenorphine treatment; methadone

Willing to present orally: Yes

Financial Support: Trial registration: The START Follow-up Study on ClinicalTrials.gov (NCT01592461). Authors disclosing relevant financial interests, activities, relationships, and affiliations are: All other authors report no financial or other possible conflicts of interest.

Email Address of Sponsor : eevans592@yahoo.com

Prefix: Dr.

First Name: Elizabeth

Middle Initial: A

Last Name: Evans

Degrees: MA MD Ph.D etc:: PhD, MA

Email: eevans592@yahoo.com

CC Email: eaevans@umass.edu

Company Affiliation: University of Massachusetts

Mailing Address: 311 Arnold House

Address 2: 715 N Pleasant St

City: Amherst

State: MA

Zip/Postal: 01003-9304

Country: United States

Phone: 818-703-6186

Membership Year: 2017

Sponsor: Christine Grella, PhD

Research Interests: Epidemiology,Health Services

ID: 50
Consideration of substance use in compensation and pension examinations of Veterans filing PTSD claims

Marc Rosen, VA Connecticut Healthcare, Marc.Rosen@Yale.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Policy

Other Topic: Disability

Abstract: Aims: Veterans filing claims that service-induced PTSD impairs them worry that claims examiners may attribute their difficulties to conditions other than PTSD, such as substance use. Substance use commonly co-occurs with PTSD and complicates establishing a PTSD diagnosis because symptoms may be explained by PTSD alone, PTSD-induced substance use, or by a substance use condition independent of PTSD. These alternative explanations of symptoms lead to different conclusions about whether a PTSD diagnosis can be made. How substance use impacts an examiner's diagnosis of PTSD in a Veteran's service-connection claim has not been previously studied. In this study, we tested the hypothesis that mention of risky substance use in the Compensation & Pension (C&P) examination would result in a lower likelihood of service-connection award, presumably because substance use reflected an alternative explanation for symptoms. Methods: Data were analyzed from 208 Veterans' C&P examinations, medical records, and confidentially-collected research assessments. Results: In this sample, 165/208 (79%) Veterans' claims were approved for a mental health condition; 70/83 (84%) with risky substance use mentioned and 95/125 (76%) without risky use mentioned (p=.02). Contrary to the a priori hypothesis, Veterans with risky substance use were more likely to get a service-connection award, even after controlling for baseline PTSD severity and other potential confounds. They had almost twice the odds of receiving any mental health award and 2.4 times greater odds of receiving an award for PTSD specifically. Conclusions: These data contradict assertions of bias against Veterans with risky substance use when their claims are reviewed. The data are more consistent with substance use often being judged as a symptom of PTSD. The more liberal granting of awards is consistent with literature concerning comorbid PTSD and substance use, and with claims procedures that make it more likely that substance use will be attributed to trauma exposure than to other

Willing to present orally: Yes

Financial Support: VISN 1 MIRECC, UG3 AT009758-01 (MIR)

Name of Sponsor (If you are NOT) a CPDD Member: Marc Rosen

Email Address of Sponsor : marc.rosen@yale.edu

Prefix: Dr.

First Name: Marc

Middle Initial: I.

Last Name: Rosen

Degrees: MA MD Ph.D etc:: M.D.

Email: Marc.Rosen@Yale.edu

CC Email: Marc.Rosen@va.gov

Company Affiliation: VA Connecticut Healthcare

Mailing Address: 950 Campbell Avenue

Address 2: Code 116-A4

City: West Haven

State: CT

Zip/Postal: 06516

Country: United States

Phone: 203-804-8251

Fax: 203-479-8119

Membership Year: 2001

Sponsor: Thomas R. Kosten & Richard Schottenfeld

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 51
Changes in specific miRNAs in substance use disorders following treatment

An Ye, Baylor College of Medicine, aye@bcm.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Dependence

Abstract: AIMS: To identify miRNAs which are altered by inpatient treatment in patients with chemical dependence. METHODS: We are examining the change in serum miRNA content during inpatient treatment in a clinical setting among 70 patients with and without substance use disorders (SUD). Standardized psychiatric assessments including SCID-I/II were conducted at admission. miRNA was assessed in serum samples taken at admission and 3-5 weeks post-admission. Participants are divided into two diagnostic groups, those with SUD (alcohol and tobacco) and controls without SUD. Preliminary analyses on two SUD and 4 control subjects are available, and the remaining 64 will be analyzed within the next couple of months. We use total RNA followed by library prep and miRNA-seq. Sequencing data is analyzed using Qiagen data analysis center. RESULTS: Using only these preliminary data, two miRNAs, hsa-miR-182-5p and hsa-miR-3613-5p, had a greater than 10-fold expression level change following treatment in the SUD group. In those without SUD, two miRNAs, has-miR-6767-5p and has-miR-6515-5p, had a greater than 2-fold expression level change following treatment. Target gene lists were determined using online miRNA target gene prediction webtools (targetscan, miRDB, miRWalk, DIANA) for each miRNA. The SUD group gene list identified 121 potential gene targets and the control list identified 122 potential gene targets. We performed functional annotation with the DAVID Bioinformatics Annotation (DBA). CONCLUSIONS: Bioinformatic analysis results suggest that the brain and retina are the main target tissues of these miRNAs in both groups. DBA analyses indicate that these target genes are primarily associated with several substance use disorders, such as tobacco use disorder and alcohol drinking. The sample size of the complete study is underway, but these preliminary findings indicate some promising findings will be available at the time of the CPDD annual meeting.

Willing to present orally: No

Financial Support: SUPPORT: McNair Medical Institute and the Toomim Family Fund. This material is the result of work supported with resources and the use of facilities at the Michael E. DeBakey VA Medical Center, Houston, TX.

Prefix: Dr.

First Name: An

Last Name: Ye

Degrees: MA MD Ph.D etc:: phD

Email: aye@bcm.edu

CC Email: aye@bcm.edu

Company Affiliation: Baylor College of Medicine

Mailing Address: One baylor Plaza

City: Houston

State: Texas

Zip/Postal: 77030

Country: United States

Phone: 2253623017

ID: 52
The geographic distribution of fentanyl-involved overdose deaths

Elizabeth Nesoff, Columbia University, EN2408@cumc.columbia.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: BACKGROUND: Illicitly manufactured fentanyl has become increasingly prevalent in the U.S. drug market, contributing to significant increases in overdose deaths since 2013. Examining trends in the geographic distribution of fentanyl-involved overdoses may shed light on patterns in fentanyl availability and identify new harm reduction strategies for fentanyl-involved overdoses. AIMS: To examine geographic trends in the distribution of fentanyl-involved overdose deaths; To discern if fentanyl-involved overdoses follow a bifurcated geographic distribution independent of other overdose deaths METHODS: A spatial analysis was conducted using locations of fentanyl-involved fatal overdoses (n=1,433) compared to non-fentanyl opioid and polydrug fatal overdoses (n=1,793) collected through the Cook County, Illinois, Medical Examiner's office from 2014 to 2018. We used the differences of K functions from the spatial point patterns and kernel intensity function to test for significant global clustering. We then used ordinary least squares regression to test significant individual- and neighborhood-level covariates and estimated residual semi-variograms to assess unexplained spatial variation. RESULTS: The difference in the K functions for fentanyl and non-fentanyl overdoses for all years combined show that fentanyl overdoses geographically cluster more than non-fentanyl overdoses, and this difference was statistically significant. Kernel intensity ratio maps identified one area in particular showed significantly elevated risk for fentanyl overdoses at the $p < 0.05$ level located in two specific neighborhoods of Chicago. The odds of a fentanyl-involved overdose were significantly increased for men, Blacks, Latinos, and younger individuals. Neighborhood deprivation score was the only significant neighborhood-level predictor (OR=1.113, 95%CI=(1.064, 1.165), $p < 0.0001$), and models showed no significant residual spatial variation. CONCLUSION: Fentanyl-involved fatal overdoses follow a distinct geographic distribution compared to opioid and polydrug overdoses associated with resource deprivation in neighborhoods where they occur. This suggests an evolving bifurcated drug market, with drug users in resource deprived neighborhoods unable to access unadulterated drugs. SUPPORT: National Institute on Drug Abuse (Grant T32DA031099)

Willing to present orally: Yes

Financial Support: National Institute on Drug Abuse (Grant T32DA031099)

Prefix: Dr.

First Name: Elizabeth

Last Name: Nesoff

Degrees: MA MD Ph.D etc:: PhD, MPH

Email: EN2408@cumc.columbia.edu

CC Email: enesoff@gmail.com

Company Affiliation: Columbia University

Mailing Address: 229 W 60th Street

Address 2: Apt. 12E

City: New York

State: NY

Zip/Postal: 10023

Country: United States

Phone: 9146216621

Membership Year: 2018

Sponsor: Dr. Silva Martins, PhD

Research Interests: Epidemiology,Policy

ID: 53
Cocaine is back: Is it Miami vice again

Jane Maxwell, Steve Hicks School of Social Work, jcmaxwell@sbcglobal.net

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Other Drug Category: Cocaine

Topic: Epidemiology

Abstract: AIM: To analyze epidemiological trends to determine the impact of a new cocaine epidemic, the users, and treatment needs. Since the peace treaty between the Colombian government and the Revolutionary Armed Forces of Colombia (FARC), the acreage under cultivation for coca bush has increased, and DEA reports price per pure gram of cocaine decreased from $259 in 2012 to $160 in 2017 while purity increased from 39% to 60%. METHODS: This study will analyze the characteristics of users entering Texas treatment programs, the routes of administration, and their socio-demographic characteristics. The study will also analyze the cases reported by Texas poison center cases, including reasons for use, locations of use, chronic or experimental use. Comparisons of this 2012-2017 cohort will be made with cohorts gen years earlier to ascertain changes in user behaviors over time. RESULTS: Over this period, cocaine admissions have become significantly more likely to be White or Hispanic, to inhale cocaine, to be female, to be employed, to also use marijuana, to not be involved in the criminal justice system, and to not be experiencing homelessness. Analysis of poison center cases will define patterns of use, locations fo use, reasons for use, other substances used with cocaine, reactions to use, and medical outcomes of exposure to cocaine. CONCLUSION: This study will provide needed information on the characteristics of an emerging new cocaine epidemic of a type of user not seen since thte "Miami Vice" days and the treatment needs of this group. This group of users will differ greatly from those who smoked "crack" and different treatment philosophies and ancillary services will be needed.

Willing to present orally: Yes

Financial Support: The University of Texas at Austin, Steve Hicks School of Social work.

Prefix: Dr.

First Name: Jane

Middle Initial: C

Last Name: Maxwell

Degrees: MA MD Ph.D etc:: Ph.D.

Email: jcmaxwell@sbcglobal.net

CC Email: jcmaxwell@mail.utexas.edu

Company Affiliation: Steve Hicks School of Social Work

Mailing Address: University of Texas at Austin

Address 2: 1717 West 6th

City: Austin

State: TX

Zip/Postal: 78703

Country: United States

Phone: 7044316534

Membership Year: 2003

Sponsor: Martin Iguchi-Michael Klein

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 54
Effectiveness of an evidence-based transdiagnostic treatment for substance misuse and intimate partner violence in Zambia: Results from a community randomized controlled trial

Jeremy Kane, Johns Hopkins Bloomberg School of Public Health, jkane29@jhu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Alcohol and other drugs (including marijuana, opioids, sedatives, and stimulants)

Topic: Treatment

Abstract: Aim Alcohol and other substance misuse are strong and consistent predictors of intimate partner violence (IPV). In Zambia, prevalence of IPV is among the highest globally, yet, similar to other low- and middle-income countries (LMIC), there is a dearth of evidence-based interventions. This study is a randomized controlled trial testing the effectiveness of the common elements treatment approach (CETA), a cognitive-behavioral therapy-based transdiagnostic treatment, in reducing hazardous alcohol use, other substance misuse, and IPV among Zambian families. Methods The trial enrolled 248 women who reported recent IPV and their male partners who had recent hazardous alcohol use. Couples were randomized to receive 6-12 weeks of individually-delivered CETA sessions (women and men received therapy separately) or treatment as usual (TAU). Participants were assessed for outcomes at baseline, post-treatment (approximately 4 months post-baseline), and 12-months post-baseline. Results Among couples who received CETA, women reported experiencing significantly less IPV (Cohen's d = 0.49, p

Willing to present orally: Yes

Financial Support: The study was supported by the UK Department for International Development and the South Africa Medical Research Council as part of the What Works to Prevent Violence against Women and Girls Programme.

Prefix: Dr.

First Name: Jeremy

Middle Initial: C

Last Name: Kane

Degrees: MA MD Ph.D etc:: PhD, MPH

Email: jkane29@jhu.edu

Company Affiliation: Johns Hopkins Bloomberg School of Public Health

Mailing Address: 624 North Broadway, Room 850

City: Baltimore

State: MD

Zip/Postal: 21205

Country: United States

Phone: 7179914098

Membership Year: 2013

Sponsor: Dr. C. Debra Furr-Holden, Ph.D.

Research Interests: Behavioral Pharmacology,Psychiatric/Medical Morbidity

ID: 55
Preliminary effectiveness of mindfulness-based relapse prevention among those in recovery from opioid use disorder receiving outpatient medication-assisted treatment

Keith Zullig, West Virginia University School of Public Health, kzullig@hsc.wvu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim: Extant research testing the effectiveness of MBRP in a naturalistic outpatient setting for those in recovery from opioid use disorder receiving medication-assisted treatment (MAT) is promising. However, this research is limited by non-experimental research designs, very small samples, and shorter follow-up periods. Methods: Participants were recruited from a Comprehensive Opioid Addiction Treatment program who were at least 90 consecutive days substance free and self-selected into treatment (MBRP) or comparison groups (treatment as usual, TAU). Outcomes tracked include 1) treatment retention rate; 2) relapse on any prohibited substance; and 3) self-reported craving, anxiety, depression, and mindfulness. Measures were administered at baseline, 12 weeks, 24 weeks, and 36 weeks post-intervention. MBRP group participants attended biweekly 60-minute sessions for 24 weeks. A mixed model analysis of variance determined the significance of the MBRP intervention on changes in craving, anxiety, depression, and mindfulness. Results: Participants included in the analyses had at least complete 24-week data (19 TAU, 10 MBRP). No significant differences in sex (p=.45), education level (p=.18), insurance status (p=.30), relationship status (p=.33), or employment status (p=.96) were detected at baseline between MBRP and TAU participants. The retention rate for MBRP participants was 67% and 72% for TAU participants. The relapse rate for MBRP participants was 47% and 44% for TAU participants. Only one participant relapsed on opioids. Significant reductions (p

Willing to present orally: Yes

Financial Support: This research was supported by Grant Number, 6R49CE002109-05-06, funded by the US Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services.

Prefix: Dr.

First Name: Keith

Middle Initial: J.

Last Name: Zullig

Degrees: MA MD Ph.D etc:: MSPH, PhD

Email: kzullig@hsc.wvu.edu

Company Affiliation: West Virginia University School of Public Health

Mailing Address: PO Box 9190

City: Morgantown

State: WV

Zip/Postal: 26505

Country: United States

Phone: 304-293-1091

ID: 56
Overdose and suicidal motivation in adults with opioid use disorder

Roger Weiss, McLean Hospital, rweiss@mclean.harvard.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM In 2017, more than 49,000 individuals died by opioid overdose. Suicide and overdose are both common among people with opioid use disorder (OUD); however, little is known about the role of suicidal motivation in those who overdose on opioids. The aim of this study is to identify correlates of opioid overdose and to assess the extent of suicidal motivation prior to opioid overdose in treatment-seeking patients with OUD. METHODS Adults with OUD on an inpatient treatment unit (N=120) completed a battery of self-report measures. Those who had experienced an opioid overdose (i.e., requiring emergency medical intervention and/or resulting in naloxone rescue) were asked about the degree to which they had wanted to die(rated from 0-10) just prior to their most recent overdose . RESULTS Forty-five percent (54/120) of those with OUD had overdosed at least once. Those who had overdosed were more likely to have a co-occurring psychiatric disorder (72% vs. 50%, p7/10) desire to die , and 21% reported a score of 10/10. CONCLUSION Conclusion: Suicidal motivation is common prior to opioid overdose and may be an important target for treatments to reduce the risk of overdose.

Willing to present orally: No

Financial Support: NIDA grants UG1 DA015831, K24 DA022888, K23 DA035297

Prefix: Dr.

First Name: Roger

Middle Initial: D.

Last Name: Weiss

Degrees: MA MD Ph.D etc:: M.D.

Email: rweiss@mclean.harvard.edu

Company Affiliation: McLean Hospital

Contact Title: Chief, Division of Alcohol & Drug Abuse

Mailing Address: 115 Mill Street

City: Belmont

State: MA

Zip/Postal: 02478

Country: United States

Phone: -6178552242

Fax: (617) 855-2699

Membership Year: 1998

Sponsor: Scott Lukas & Edward Nunes

Research Interests: Molecular Biology Pharmacology Behavioral Pharmacology

ID: 57
Changes in associations of prescription opioid use disorder and illegal behaviors over time

Carrie Mintz, Washington University School of Medicine, mintzc@wustl.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: Aim: As the availability of prescription opioids has decreased in recent years, whether there have been associated changes in the likelihood of persons with prescription opioid use disorder to engage in illegal behaviors related to drug use remains unknown. This study examined changes in prevalence of illegal behaviors over time among persons with prescription opioid use disorder compared to persons without prescription opioid use disorder. Methods: We analyzed data from the adult participants from the National Survey of Drug Use and Health from 2002-2014 (n = 492, 161). Outcome variables included selected illegal behaviors and sources of opioids used non-medically. Logistic regression was used to examine changes in the strength of association between outcome variables and prescription opioid use disorder over time. Results: Over the thirteen year time period examined, persons with prescription opioid use disorder became more likely to sell illicit drugs (aOR 2.41, 95% CI: 1.56-3.71, p

Willing to present orally: Yes

Financial Support: National Institute on Drug Abuse: T32DA007261-17 R21 AA024888-01 R21 DA044744 UL1 TR002345 U10AA008401 R01DA036583 R21AA02568901

Name of Sponsor (If you are NOT) a CPDD Member: Laura Bierut

Email Address of Sponsor : laura@wustl.edu

Prefix: Dr.

First Name: Carrie

Last Name: Mintz

Degrees: MA MD Ph.D etc:: MD

Email: mintzc@wustl.edu

CC Email: carrie.mintz@gmail.com

Company Affiliation: Washington University School of Medicine

Mailing Address: 7616 Balson Avenue

City: Saint Louis

State: MO

Zip/Postal: 63130

Country: United States

Phone: 3147042030

ID: 58
The relationship between sleep apnea and substance abuse: Findings from the National Survey on Drug Use and Health

sandeep nayak, Johns Hopkins Hospital, snayak8@jhmi.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: All substances

Topic: Epidemiology

Abstract: Aim: Sleep apnea is a common condition in which individuals are more likely to have major depression, poorer health status, and sociodemographic risk factors which may predispose to substance abuse. This study investigated substance abuse characteristics of adults with sleep apnea. Methods: Data from the 2008-2014 National Survey on Drug Use and Health were used to investigate characteristics of past year substance abuse/dependence in individuals with (n=5550) versus without (n=264,677) self-reported sleep apnea. Groups were compared with chi-square, and logistic regression was used to examine the association between sleep apnea and abuse/dependence for different drug categories. Results: The two groups differed on several demographic features that were controlled in final analyses. Individuals with sleep apnea were less likely to endorse past year abuse/dependence on alcohol and marijuana and more likely to endorse tobacco dependence as well as past year abuse/dependence of any prescription psychotherapeutic, including prescription analgesics and tranquilizers (i.e., benzodiazepines and also muscle relaxants); all findings were p (a heterogeneous category including non-benzodiazepine hypnotics, barbiturates, sedative antidepressants and antipsychotics). Using logistic regression to control for key demographic features and depression, and correcting for multiple comparisons, sleep apnea remained significantly associated with abuse/dependence on prescription tranquilizers (OR = 1.95, p These findings suggest that higher levels of prescription drug abuse/dependence in individuals with sleep apnea may be explained by demographic factors and depression, while sleep apnea may be associated with abuse/dependence on tranquilizers.

Willing to present orally: Yes

Financial Support: None

Name of Sponsor (If you are NOT) a CPDD Member: Eric Strain

Email Address of Sponsor : estrain1@jhmi.edu

Prefix: Dr.

First Name: sandeep

Last Name: nayak

Degrees: MA MD Ph.D etc:: MD

Email: snayak8@jhmi.edu

Company Affiliation: Johns Hopkins Hospital

Mailing Address: 1208 N calvert

Address 2: unit 1

City: baltimore

State: MD

Zip/Postal: 21202

Country: United States

Phone: 9126700145

ID: 59
Associations between beliefs about research and willingness to participate in a pharmacological randomized controlled trial for the treatment of cocaine or crack-cocaine dependence

Valerie Giang, British Columbia Centre on Substance Use (BCCSU) Canada Addiction Medicine Research Fellowship, valerie1@ualberta.ca

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Treatment

Abstract: Aim: Despite the increasing need for randomized controlled trials (RCT) testing pharmacological treatments for stimulant use disorders, little is known about factors that may affect willingness to participate (WTP) in such studies. We assessed how (1) social-structural and health factors, and (2) beliefs about clinical research may be associated with WTP in a hypothetical RCT among people who use cocaine or crack-cocaine. Methods: Participants in three Vancouver, Canada-based prospective cohorts of people who use illicit drugs (PWUD) reporting cocaine or crack-cocaine use completed a supplemental questionnaire focused on RCT participation. Following a description of a hypothetical RCT testing a new treatment for cocaine or crack-cocaine use, participants were asked a series of questions focused on their beliefs about research and WTP. Logistic regression identified factors independently associated with WTP. Results: Between June 2015 and 2016, 206/241 (85.5%) indicated WTP. In initial multivariable analysis of social-structural and health factors (Model 1), recent addiction treatment enrolment was positively associated with WTP (Adjusted OR [AOR] = 2.55; 95% CI: 2.55: 1.07 – 6.06). Subsequent analyses additionally assessing beliefs around research participation (Model 2) found that, only Perceived Safety of Participation remained positively associated with WTP (AOR = 2.99; 95% CI: 1.33 – 6.73). Conclusion: Findings indicated high prevalence of WTP in a hypothetical RCT for cocaine or crack-cocaine use and suggest that PWUD weigh the possible risks and benefits of RCT participation. The perceived safety of participation may be an underlying factor linked to both increased addiction treatment enrolment and RCT participation. Perceptions of safety may therefore promote RCT participation regardless of social-structural and health factors. Addressing concerns about participation risk may improve recruitment and retention in RCTs for pharmacological treatment of stimulant use disorder.

Willing to present orally: Yes

Financial Support: Conference fees will be reimbursed by the BCCSU (British Columbia Centre on Substance Use) Canada Addiction Medicine Research Fellowship.

Name of Sponsor (If you are NOT) a CPDD Member: Seonaid Nolan

Email Address of Sponsor : seonaid.nolan@bccsu.ubc.ca

Prefix: Dr.

First Name: Valerie

Last Name: Giang

Degrees: MA MD Ph.D etc:: MD

Email: valerie1@ualberta.ca

Company Affiliation: British Columbia Centre on Substance Use (BCCSU) Canada Addiction Medicine Research Fellowship

Mailing Address: 205-1005 West 7th Ave

City: Vancouver

State: BC

Zip/Postal: V6H1B2

Country: Canada

Phone: 604-377-2628

ID: 60
Effects of cannabinoids on neuronal activity in mouse cerebellar cultures assessed using microelectrode array techniques

Masahiko Funada, NIMH, NCNP, mfunada@ncnp.go.jp

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Marijuana/Cannabinoids

Topic: Mechanisms of Action

Abstract: AIM: Microelectrode array (MEA) approaches have been proposed as a tool for detecting functional changes in electrically excitable cells, including neurons, exposed to drugs, chemicals and particles. In the present study, we investigated the effects of acute administration of cannabinoids on spontaneous neuronal activity in the mouse cerebellum using MEA techniques. METHODS:Cerebellar neurons were isolated from the brainof ICR mouse pups. Cerebellar cell suspensions were placed in multi-well MEA plates containing 24 wells, with each well containing 16 individually-embedded nanotextured gold microelectrodes. Recordings were made using the Maestro EDGE 384-channel amplifier with integrated heating system, temperature controller and data acquisition interface (Axion BioSystems Inc.).The effects of delta-9-tetrahydrocannabinol (THC) and synthetic cannabinoid JWH-018 on spontaneous neuronal activity in the cerebellum were assessed using MEA techniques. In addition, the involvement of cannabinoid CB1 receptors was examined. RESULTS: After 10 days in culture, cerebellar cultures expressed CB1 receptors in the MAP-2 positive neurons and developed stable spontaneous activity in the MEA plates.Administration of the voltage-gated sodium channel blocker tetrodotoxin completely blocked neuronal activity in the cerebellum. Both THC and JWH-018 reduced cerebellarspontaneous network activityin a concentration-dependent manner. These effects were blocked by pretreatment with the selective CB1receptor antagonist AM251. Neither THC nor JWH-018 produced cytotoxic effects on the cerebellar cultures after a 60 min exposure. CONCLUSION: Our findings indicate that reduction of neuronal activity in the cerebellum by THC and synthetic cannabinoids are mediated by CB1receptors. Suppression of neuronal activity in the cerebellum may play an important role in the induction of motor impairment following marijuana consumption in humans.

Willing to present orally: No

Financial Support: This research was supported by a Research Grant for Regulatory Science of Pharmaceuticals and Medical Devices, Health and Labour Sciences Research Grants from the Ministry of Health, Labour and Welfare of Japan (to M.F.).

Name of Sponsor (If you are NOT) a CPDD Member: Prof. Tsutomu Suzuki

Email Address of Sponsor : suzuki@hoshi.ac.jp

Prefix: Dr.

First Name: Masahiko

Last Name: Funada

Email: mfunada@ncnp.go.jp

CC Email: mfunada@ncnp.go.jp

Company Affiliation: NIMH, NCNP

Mailing Address: Ogawa-Higashi, Kodaira

City: Kodaira

State: Tokyo

Zip/Postal: 1878553

Country: Japan

Phone: 423461896

ID: 61
Intimate partner violence and current drug use in US Army Reserve/National Guard soldiers and their partners

D. Lynn Homish, State University of New York at Buffalo, dlhomish@buffalo.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: non-medical use of prescription drugs and/or illicit drugs

Topic: Epidemiology

Abstract: AIM In the general population, intimate partner violence (IPV) is associated with substance use. Given lower rates of drug use in the military overall, the link between IPV and drug use may be diminished or absent in this population. The objective of this work was to examine the longitudinal association between IPV and current drug use (non-medical use of prescription drugs and/or illicit drug use) in reserve military couples. METHODS Data are from the first three assessments of Operation: SAFETY (Soldiers and Families Excelling Through the Years), an ongoing, longitudinal study of US Army/National Guard soldiers and their partners (N=411 dyads). GEE models were used to examine the risk of current drug use based upon IPV (i.e., sexual aggression, physical aggression, and physical injury) and presently serving in the reserves, controlling for partner drug use, marital satisfaction, and age. RESULTS Rates of current drug use were 9% (males) and 11% (females). Rates of IPV for sexual aggression, physical aggression, and physical injury were 13%, 13%, 5% for male aggressors and 20%, 7%, and 4% for female aggressors, respectively. Women had greater odds of current drug use when their partner was sexually aggressive (pCONCLUSION Results show a longitudinal association between women's sexual, but not physical, victimization and current drug use. Results also suggest that being in the military did not mitigate the relationship between IPV and drug use. In fact, men married to a soldier were more likely to report current drug use even in the absence of IPV.

Willing to present orally: Yes

Financial Support: R01-DA034072 (GGH) & UL1TR001412 (University at Buffalo)

Name of Sponsor (If you are NOT) a CPDD Member: Gregory Homish

Email Address of Sponsor : ghomish@buffalo.edu

Prefix: Mrs.

First Name: D. Lynn

Last Name: Homish

Degrees: MA MD Ph.D etc:: MS

Email: dlhomish@buffalo.edu

Company Affiliation: State University of New York at Buffalo

Mailing Address: 194 Farber Hall

City: Buffalo

State: NY

Zip/Postal: 14214

Country: United States

Phone: 71682956522

ID: 62
Peer information and substance use decision making in street-involved youth

Erin Macdonald, Carleton University, erin.macdonald3@carleton.ca

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: All drug categories except alcohol and tobacco

Topic: Adolescent

Abstract: AIM. Elevated rates of substance use in adolescence, while normative (Gardner & Steinberg, 2005), can be partially explained by peer influence and peer information. Currently, little is known about how substance use information is distributed among and evaluated by homeless or street-involved youth. This study examines the constellation of factors that at-risk, substance-using youth consider when evaluating peer information. METHODS. We recruited n = 47 youth (Mage=21.65, range=16-27) from a centrally located drop-in centre providing supports for at-risk youth. Participants first completed paper surveys assessing variables including substance dependence, well-being, and peer credibility, trust, and experience based on Gray et al.'s (2005) peer information framework, followed by a semi-structured interview assessing factors relating to youths' subjective experiences of peer information sharing about drug use. Qualitative data are analyzed using thematic analysis as described by Braun and Clarke (2006), and regression models assess relations between peer information sharing and indicators of well-being. RESULTS. Preliminary results suggest that trust and experience are significant factors in how youth evaluate peer-supplied substance use information. Information from a trusted source (e.g., close friend) was evaluated as more reliable than information from a less trusted source (e.g., dealer). Moreover, experience using substances factored into youths' evaluations of peer information. Less-experienced youth were more receptive to receiving information about substance use from peers, even from less typically reliable ones (e.g., dealer), provided that they had more perceived experience than the participant. CONCLUSION. These themes suggest peer specific factors are significant in impacting the way that homeless and street-involved youth make decisions to engage in substance use. To the extent that youth question the legitimacy of advice given by support workers and other adults who lack personal experience using substances, trust and experience are critical barriers facing efforts to disseminate accurate information about substance use safety.

Willing to present orally: Yes

Financial Support: Financial support provided through SSHRC and MITACS Accelerate.

Name of Sponsor (If you are NOT) a CPDD Member: Dr. John Mitchell

Email Address of Sponsor : john.mitchell@duke.edu

Prefix: Ms.

First Name: Erin

Middle Initial: P

Last Name: Macdonald

Email: erin.macdonald3@carleton.ca

Company Affiliation: Carleton University

Mailing Address: 157 Hinchey Ave

City: Ottawa

State: ON

Zip/Postal: K1Y1L5

Country: Canada

Phone: 613-323-6736

ID: 63
Primary care provider capacity to treat co-occurring chronic pain and opioid use disorder: A cross sectional examination.

Allyson Varley, University of Alabama at Birmingham, avarley@uab.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM Recent initiatives to address the opioid crisis have focused on alterations to chronic pain care including more cautious opioid prescribing and increasing access to treatments for opioid use disorder (OUD). CDC guidelines highlight primary care providers (PCPs) as lynchpins in this effort. While opioid prescribing has fallen in recent years, it is unknown if PCPs believe they can deliver high-quality pain care in this new policy environment. This study's objective was to compare perceived capacity to treat co-occurring chronic pain and OUD across 4 distinct domains and highlight the shortfalls perceived by PCPs. METHODS A national sample of PCPs was recruited via email to complete an online questionnaire battery that included the 10-item Capacity to Treat Chronic Pain and Opioid Use Disorder Questionnaire (CAP-POD). The CAP-POD is a validated survey that consists of 4 scales: 1) Motivation to Treat (α =.87); 2)Trust in Evidence (α =.87); 3) Assessing Risk (α =.82); and 4) Patient Access (α = .79). Scores range from 1 (low capacity) to 7 (higher capacity). We compared mean scores on these scales to identify potential gaps in capacity. RESULTS 508 PCPs completed the CAP-POD. Mean scores across scales were: Motivation to Treat = 3.49 (SD=1.48); Trust in Evidence = 5.67(SD=1.03); Assessing Risk = 5.45 (SD=1.19); and Patient Access = 3.06 (SD=1.47). Differences in the scales were significant (p CONCLUSION PCPs reported moderately high confidence in evidence-supported interventions for treating co-occurring chronic pain and OUD, and in their ability to assess risk for OUD. By comparison, their desire to treat patients with co-occurring chronic pain and OUD, and perceived accessibility of services was low. These results suggest that transforming care is likely to require renewed attention to low interest on the part of PCPs in treating patients where chronic pain and opioids are both involved, and in poor accessibility of services for patients.

Willing to present orally: Yes

Financial Support: This project was supported by grant number T32HS013852 from the Agency for Healthcare Research and Quality.

Name of Sponsor (If you are NOT) a CPDD Member: Stefan Kertesz

Email Address of Sponsor : skertesz@uabmc.edu

Prefix: Dr.

First Name: Allyson

Last Name: Varley

Degrees: MA MD Ph.D etc:: Ph.D

Email: avarley@uab.edu

Company Affiliation: University of Alabama at Birmingham

Mailing Address: 3764 Fairhaven Dr.

City: Birmingham

State: AL

Zip/Postal: 35223

Country: United States

Phone: 2057325698

ID: 64
Selective neuromorphometric changes and recovery in response to cannabinoid treatment in adolescent female rhesus macaques

Arkadiy Maksimovskiy, McLean Hospital, amaksimovskiy@mclean.harvard.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Marijuana/Cannabinoids

Topic: Adolescent

Abstract: AIM: Epidemiological data suggest that cannabis is the most widely used illicit substance among adolescents in the U.S. Of concern, laboratory-based human studies indicate that cannabinoid exposure during developmental periods produce alterations in brain structure and function that may endure into adulthood. Thus, there is a strong need for rigorous preclinical studies to identify persistent cannabinoid-related brain alterations. Such findings can help to develop targeted therapeutic strategies to mitigate potential long-term effects of cannabinoid exposure. The present study examined the effects of acute and chronic exposure to a high potency, long-acting CB1 receptor full agonist, AM2389, on brain morphometry in nonhuman primates. METHODS: Experimentally naïve, female rhesus macaques (N=4; 3.5-4 years-old) received daily intramuscular injections of 0.01 mg/kg AM2389. Scan sessions occurred 3-hr following drug administration and T1-weighted anatomic images were acquired at baseline, on the first day (acute), after treatment for 30 days (chronic), and 30 days after AM2389 treatment was discontinued. The D99 macaque atlas was used to segment T1 data and extract regional volumetric measures (in mm3). Multiple linear regression models were used to measure the effects of drug administration on brain volume, controlling for random effects of subject and global grey-matter volume. Results were corrected for multiple comparisons and Tukey-HSD tests were used for post-hoc analyses. RESULTS: Analyses revealed a significant effect of cannabinoid exposure on bilateral Posterior Cingulate Cortex (PCC) volume: F(3,1)=9.71, p.05). Analyses did not reveal significant effects of cannabinoid exposure on other brain regions (p's>.05). CONCLUSION: Cannabinoid exposure rapidly alters brain morphometry in a region involved in a variety of cognitive processes. However, these changes dissipated within 30 days following treatment discontinuation, suggesting that these alterations are transient.

Willing to present orally: Yes

Financial Support: This work was supported by NIDA/NIH grants K01DA039306, K01DA035974, and T32DA015036.

Prefix: Dr.

First Name: Arkadiy

Middle Initial: L.

Last Name: Maksimovskiy

Degrees: MA MD Ph.D etc:: Ph.D.

Email: amaksimovskiy@mclean.harvard.edu

CC Email: amaksimovskiy@mclean.harvard.edu

Company Affiliation: McLean Hospital

Mailing Address: 19 Strathmore Rd. Apt. A

City: Belmont

State: MA

Zip/Postal: 02155

Country: United States

Phone: 6463216808

Membership Year: 2018

Sponsor: Dr. Scott Lukas

Research Interests: Neurobiology,Psychiatric/Medical Morbidity

ID: 65
An ethnographic decision model of initiation of gabapentin misuse among opioid misusers

Mance Buttram, Nova Southeastern University, mb2315@nova.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Other Drug Category: Gabapentin

Topic: Behavior

Abstract: Aims: Emerging reports suggest that the anti-neuralgic gabapentin is being misused, especially among individuals with substance abuse histories. This study examines factors that influence gabapentin initiation. Methods: Data are drawn from an exploratory mixed methods study examining the initiation of gabapentin misuse. The sample includes 54 individuals who report a history of gabapentin misuse and past year opioid misuse; and 21 individuals who report past year prescription opioid/heroin (mis)use and no gabapentin misuse history. All participants are age 18 or over. The sample includes non-gabapentin misusers to collect data about why some opioid users do not initiate gabapentin misuse. Data collection and analyses are ongoing. Results: Participants are female (34.6%); Hispanic (26.6%), Black (13.3%), White (57.3%), and other race/ethnicity (2.6%). Mean age is 34. Among gabapentin misusers, the most frequently reported reasons for initiating gabapentin misuse include: being a multidrug user and using gabapentin to get high or to potentiate the effects of opioids (N=16); to get high when access to opioids was limited and gabapentin was available through prescription (e.g., jail; treatment; N=15); to mitigate opioid withdrawal symptoms or effects of other drugs (N=15); and to self-treat physical pain (N=8). Some participants indicated that they learned to use gabapentin to get high and/or self-treat withdrawal symptoms in the future during their stays in treatment. Among non-gabapentin misusers the most frequently reported reasons for not initiating gabapentin misuse include being unaware of gabapentin or its abuse potential (N=8) or wishing to only use opioids (N=6). Conclusions: Gabapentin appears to be well-known among opioid users and misused for a variety of reasons. Many learn about gabapentin when it prescribed off-label to ease withdrawal symptoms for patients in detox/treatment. Although continued research is needed, greater monitoring of gabapentin misuse and diversion may be warranted, including among prescribers and treatment professionals.

Willing to present orally: Yes

Financial Support: This research was supported by Grant R03 DA043613 from the National Institute on Drug Abuse.

Prefix: Dr.

First Name: Mance

Middle Initial: E.

Last Name: Buttram

Degrees: MA MD Ph.D etc:: PhD

Email: mb2315@nova.edu

Company Affiliation: Nova Southeastern University

Mailing Address: 7255 NE 4th Avenue

Address 2: Ste. 112

City: Miami

State: FL

Zip/Postal: 33138

Country: United States

Phone: 3055712774

ID: 66
Influence of a low dose of pregabalin maintenance on cannabis effects and related behaviors in daily cannabis users

Joshua Lile, University of Kentucky, College of Medicine, jalile2@uky.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Behavior

Abstract: AIM: No medications are approved for cannabis use disorder (CUD), though a small clinical trial demonstrated that the voltage-dependent calcium channel (VDCC) ligand gabapentin reduced cannabis use in treatment seekers. VDCCs are modulated by cannabinoid (CB) ligands via CB receptor dependent- and independent-mechanisms, and there are shared therapeutic effects between CB agonists and VDCC ligands. This overlapping neuropharmacology and the initial promising clinical results supported the hypothesis that maintenance on pregabalin, a "next-generation" VDCC ligand would reduce cannabis self-administration. METHODS: Thirteen (2F, 11M) non-treatment-seeking daily cannabis users participated in a placebo-controlled, double-blind, counterbalanced, within-subjects study. The protocol consisted of two 11-day outpatient maintenance phases (0 or 300 mg pregabalin/day) with seven maintenance days and four experimental sessions within each phase. During experimental sessions, maintenance continued and participants completed two 2-day blocks of sampling and self-administration sessions to determine the reinforcing effects of smoked cannabis (0 and 5.9% THC). Naturalistic cannabis use and the subjective, performance and physiological responses to cannabis were also measured, as were side effects, sleep quality, craving, other self-reported substance use. RESULTS: Eleven subjects completed both study phases; two completed one of the two phases. Data analysis is ongoing and uses generalized estimating equations with random subject effects to fit a linear model for each outcome. Preliminary analyses indicate that cannabis functioned as a reinforcer (puffs 0% THC = 2.3 ± 0.9; puffs 5.9% THC = 5.9 ± 0.8, collapsed across treatment dose), but pregabalin did not attenuate the reinforcing effects of cannabis (5.7 ± 0.8 puffs of 5.9% THC cannabis during placebo treatment; 5.8 ± 1.0 puffs of 5.9% THC cannabis during 300 mg pregabalin treatment). CONCLUSION: These initial human laboratory results from a sample of non-treatment-seeking cannabis users do not support the potential efficacy of 300 mg pregabalin to reduce cannabis intake, though higher doses

Willing to present orally: No

Financial Support: NIDA R01 DA036550

Prefix: Dr.

First Name: Joshua

Middle Initial: A.

Last Name: Lile

Degrees: MA MD Ph.D etc:: Ph.D.

Email: jalile2@uky.edu

Company Affiliation: University of Kentucky, College of Medicine

Contact Title: Assistant Professor

Mailing Address: Medical Behavioral Science Bldg.

City: Lexington

State: KY

Zip/Postal: 40536-0086

Country: United States

Phone: (859) 323-6034

Membership Year: 2005

Sponsor: Michael A. Nader, Craig R. Russ, Ph.D.

Joseph Cochin Young Investigator Award: 2012

Travel Award: 2005

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 67
Family substance use, relationship problems and race/ethnicity among juvenile offenders

Carl Leukefeld, University of Kentucky, cleukef@uky.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Adolescent

Abstract: Background: The link between substance use and juvenile delinquency is well documented, including the influence on family characteristics. However, limited research has examined the connection between family relationships and race/ethnicity among juvenile offenders. The current study 1) profiles substance use, family substance use, and criminal history among Kentucky juvenile offenders by race/ethnicity and 2) examines race/ethnicity as a correlate of family substance use and substance-related relationships. Method: This study presents data from the Kentucky Department of Juvenile Justice (DJJ) as part of the NIDA JJ-TRIALS cooperative agreement. The dataset contains 784 juveniles referred to the DJJ between October 2014 and December 2017. Bivariate analyses examined race/ethnicity differences in demographics, substance use, and criminal behavior. A series of logistic regression models identified independent correlates of family substance use and substance-related relationship problems. Results: Almost three-fourths (71.8%) were white. White youth were more likely to report ever using alcohol and other drugs with the exception of marijuana, having a history of substance-related relationship problems, and having a family history of substance use problems. Non-white youth were more likely to report marijuana use and a violent offense charge. Logistic regression analyses found that although race/ethnicity was not associated with a family history of substance use problems, white youth were nearly twice as likely to report relationship problems caused by substance use (p=.014). However, this was non-significant when controlling for family substance use history. Drug use and having a prior adjudication were also positive correlates in each model. Conclusions: Findings support a strong link between a juvenile offender's substance use behaviors, criminal history, and their familial relationships, regardless of race/ethnicity. Implications for treatment and prevention will be discussed, including involving families in treatment and treatment planning.

Willing to present orally: No

Financial Support: Funding: JJ-TRIALS is funded by NIDA in collaboration with SAMHSA and DOJ.

Prefix: Dr.

First Name: Carl

Middle Initial: G.

Last Name: Leukefeld

Degrees: MA MD Ph.D etc:: D.S.W.

Email: cleukef@uky.edu

CC Email: cleukef@uky.edu

Company Affiliation: University of Kentucky

Contact Title: Professor

Mailing Address: 643 Maxwelton Ct.

City: Lexington

State: KY

Zip/Postal: 40506

Country: United States

Phone: (859) 257-2355

Fax: (859) 323-1193

Membership Year: 2000

Sponsor: James L. Sorensen, Ph.D. &Thomas H. Kelly, Ph.D.

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 68
Reducing risk of overdose after release from incarceration (ROAR): Protecting women released from prison in Oregon

Christi Hildebran, HealthInsight, childebran@healthinsight.org

---

Abstract Category: Program Descriptions

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM Drug overdose is the leading cause of death after release from prison, and this risk is significantly higher among women compared to men. Females are underrepresented in studies of corrections populations and MOUD interventions. We describe the collaborative development of the innovative opioid overdose prevention program "Reducing Overdose After Release from Incarceration" (ROAR). ROAR combines provision of medications for opioid use disorder (MOUD) with support from Certified Recovery Mentors (CRMs) to reduce overdose risk in adult female inmates when they are released from prison. METHODS The ROAR intervention consists of two primary components: 1. Participants receive one injection of extended release naltrexone, an opioid antagonist medication, prior to release from prison. 2. CRMs meet with participants prior to release and provide support for engagement and retention in community OUD treatment, including MOUD, for six months following release. The pilot includes an evaluation of the association between ROAR participation and the primary outcome of opioid overdose, including both fatal or non-fatal overdoses. Feasibility and acceptability of the intervention are also assessed using surveys and qualitative interviews that examine: 1. Implementation outcomes including adoption, engagement, and retention; 2. Service outcomes including patient-centeredness and service intensity; and 3. Client outcomes including satisfaction, quality of life, return to opioid use, and overdose. RESULTS We will estimate odds of overdose among ROAR participants versus comparable non-participants released from prison during the study period; and will track acceptability, adoption, engagement and retention. CONCLUSION ROAR's evaluation will include analysis of surveys and interviews with participants over six months following release, peer and treatment service utilization data, and linked public health and criminal justice datasets. ROAR will improve understanding of interventions combining MOUD and peer support for justice-involved women. Results will inform development of a scaled-up intervention that could be replicated in correctional facilities nationally.

Willing to present orally: Yes

Financial Support: Center for Disease Control and Prevention 1 RO1CE003008-01-00

Name of Sponsor (If you are NOT) a CPDD Member: P. Todd Korthuis, MD, MPH

Email Address of Sponsor : korthuis@ohsu.edu

Prefix: Ms.

First Name: Christi

Last Name: Hildebran

Degrees: MA MD Ph.D etc:: LMSW, CADC III

Email: childebran@healthinsight.org

CC Email: christihildebran@gmail.com

Company Affiliation: HealthInsight

Mailing Address: 2020 SW 4th Ave, Suite 520

City: Portland

State: OR

Zip/Postal: 97201

Country: United States

Phone: 503-382-3971

ID: 69
Epigenetics of cocaine use disorder: A collaborative case-control initiative in blood and brain

Consuelo Walss-Bass, University of Texas Health Science Center at Houston, consuelo.walssbass@uth.tmc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Other

Other Topic: Epigenetics

Abstract: AIM: Recent studies have implicated a role for DNA methylation in modulating addictive behavior. In this study, we investigated blood methylome alterations in patients with cocaine use disorder (CUD, N=99) and controls (N=90) in a cohort from the region of Rio Grande do Sul, Brazil, as well as in blood and brain tissue (BA9) from 11 controls and 32 subjects with polysubstance use disorder, including cocaine, from the Houston area. METHODS: Assessments were made using the Infinium MethylationEPIC BeadChip (Illumina) controlling for age, sex, BeadChip, batch, and blood cell type composition, adjusting for false discovery rate. RESULTS: In the Brazil cohort we identified significant differences in methylation of 34 genes. Of these, S100A8, a toll-like receptor 4 (TLR4), agonist was found by enrichment analyses to be involved in immune system pathways. In addition, we identified accelerated epigenetic aging in CUD subjects compared to controls, and this was correlated with severity of cocaine consumption. Accelerated epigenetic aging was also identified in BA9 of addiction subjects from the Houston cohort. Of interest, HYALP1 gene was nominally differentially methylated in both blood and brain from these subjects and brain methylation correlated with epigenetic aging in brain. HYALP1 degrades hyaluronan, an extracellular matrix protein that accumulates in the brain with aging. Hyaluronan modulates inflammatory pathways via the CD44 receptor, and its accumulation in the brain may contribute to increased vulnerability to brain insults related to addiction. CONCLUSION: Our findings support a role of inflammation and extracellular matrix pathways in cocaine addiction, and may aid in future development of novel treatments for addiction.

Willing to present orally: Yes

Financial Support: This work was supported by National Institute on Drug Abuse awards R01DA044859 and R01DA044859-02S1

Name of Sponsor (If you are NOT) a CPDD Member: Joy Schmitz

Email Address of Sponsor : Joy.M.Schmitz@uth.tmc.edu

Prefix: Dr.

First Name: Consuelo

Last Name: Walss-Bass

Degrees: MA MD Ph.D etc:: Ph.D.

Email: consuelo.walssbass@uth.tmc.edu

Company Affiliation: University of Texas Health Science Center at Houston

Mailing Address: 1941 East Rd

Address 2: ROOM 3110

City: Houston

State: TX

Zip/Postal: 77054

Country: United States

Phone: 7134862718

ID: 70
Abstinence-contingent wage supplements to promote employment and abstinence in unemployed adults with opioid use disorder

August Holtyn, Johns Hopkins University School of Medicine, aholtyn1@jhmi.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM. Poverty, unemployment, and substance use disorders are co-occurring problems. This randomized controlled trial is evaluating whether abstinence-contingent wage supplements can promote employment and drug abstinence in unemployed adults with opioid use disorder. METHODS. In Phase 1 (3 months), participants could earn up to $200/week for engaging in job-skills training. To promote drug abstinence, participants had to provide opiate- and cocaine-negative urine samples to maintain maximum pay. In Phase 2 (1 year), participants were randomly assigned to receive Individual Placement and Support (IPS) supported employment (IPS Only) or IPS with abstinence-contingent wage supplements (IPS + Wages). Participants in the IPS + Wages group could earn up to $320/week for maintaining opiate- and cocaine-abstinence and for seeking and maintaining employment. Participants completed assessments every 30 days throughout Phases 1 and 2. RESULTS. Interim results showed that participants in the IPS + Wages group provided significantly more opiate- and cocaine-negative urine samples than participants in the IPS Only group (66% versus 45%), and were significantly more likely to gain employment than participants in the IPS Only group (52% versus 28%). CONCLUSION. This intervention could be an effective long-term treatment for substance use disorders and unemployment.

Willing to present orally: Yes

Financial Support: This work was supported by the National Institute on Drug Abuse of the National Institutes of Health under award number R01 DA037314.

Prefix: Dr.

First Name: August

Last Name: Holtyn

Degrees: MA MD Ph.D etc:: Ph.D.

Email: aholtyn1@jhmi.edu

Company Affiliation: Johns Hopkins University School of Medicine

Mailing Address: 5200 Eastern Ave 350 East

City: Baltimore

State: MD

Zip/Postal: 21224

Country: United States

Phone: 410-550-9691

Fax: 410-550-7495

Membership Year: 2013

Sponsor: Dr. Kenneth Silverman, Ph.D. and Dr. Elise Weerts

Research Interests: Behavioral Pharmacology,Treatment

Date of Membership: 11.16.18 approved

ID: 71
A Suggestion for the Design of Qualification Phase in Human Abuse Potential Studies

Ling Chen, U.S. Food and Drug Administration, ling.chen@fda.hhs.gov

---

Abstract Category: Theoretical/Commentary

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: CNS

Topic: Other

Other Topic: Human abuse potential studies

Abstract: The design of a human abuse potential study includes a screening visit, a qualification phase, a treatment phase and a follow up. The qualification phase is to select qualified subjects for the treatment phase. There are two treatments, positive control and placebo, in the qualification phase. A subject takes these treatments in a crossover manner. A qualified subject should respond to the positive control, and can identify the placebo. For the sensitivity and integrity of the study, the first comparison in the treatment phase is between the positive control and placebo. If the mean of positive control is significantly greater than that of placebo by a pre-specified margin, the study is validated. Otherwise, the study fails. The commonly used is 15 for Drug Liking on a bipolar visual analog scale. Recently, we heard some complaints regarding the margin of 15, and were told that some studies failed the validation test, because the margin 15 is too large. I examined data from 9 human abuse potential studies in recent New Drug Applications (NDA). In this presentation, I will discuss the possible reasons for failing the validation test, and also make a suggestion for improving the design of the Qualification Phase in human abuse potential studies.

Willing to present orally: No

Financial Support: None.

Name of Sponsor (If you are NOT) a CPDD Member: Calderon N. Silvia

Email Address of Sponsor : Silvia.calderon@fda.hhs.gov

Prefix: Dr.

First Name: Ling

Last Name: Chen

Email: ling.chen@fda.hhs.gov

Company Affiliation: U.S. Food and Drug Administration

Mailing Address: 10903 New Hampshire Ave.

Address 2: WO21, RM4644

City: Silver Spring

State: MD

Zip/Postal: 20993

Country: United States

Phone: (301) 796-0864

Fax: (301) 796-9976

ID: 72
Will this adult patient develop a prescription opioid addiction? Strategies for rational clinical examination

Jan Klimas, BC Centre on Substance Use, jan.klimas@ucd.ie

Abstract Category: Literature Review

Abstract Detail: Human

Drug Category: Polydrug

Topic: Treatment

Abstract: Aim: To review the evidence examining symptoms, signs and screening tools for identifying adult patients at risk of prescription opioid addiction when initiating prescription opioids. Methods: MEDLINE and EMBASE (1946 – October 2017) were searched for articles investigating risks of prescription opioid addiction. Identified studies underwent rigorous quality review. Data from higher quality studies were extracted and used to calculate likelihood ratios (LR). Results: Of 1272 identified studies, four high-quality studies that included 2,888,346 patients and 4470 cases of prescription opioid addiction were analyzed. A history of a non-opioid substance use disorder (LR range 6.1–17.0) and the presence of one or more mental disorder (LR range 2.2–5.8) increased the likelihood of subsequent prescription opioid use disorder. No findings had an LR of 0.5 or less. Only five screening tools were derived from studies that met the pre-specified study quality threshold and no tools had been validated. Among these tools, the Prescription Medication Questionnaire (PMQ) had marginal utility for identifying higher risk patients with an LR of 2.6 (95% CI, 1.4 – 4.8; specificity, 0.86) when patients had a PMQ score of 30 or higher but a score of 29 or lower was not particularly useful for lowering the risk of prescription opioid addiction (LR of 0.75 (95% CI, 0.60 – 0.94; sensitivity, 0.35). Conclusion: While a history of non-opioid substance use disorder and history of a mental health disorder appeared useful for identifying high risk patients, few quality studies were available and no symptoms, signs or screening tools helped identify those at low risk. Prescribing physicians should be aware of the limitations of using clinical judgement when differentiating patients at risk of developing opioid use disorder.

Willing to present orally: Yes

Financial Support: This research was undertaken, in part, thanks to funding from an operating grant from Canadian Institutes of Health Research (397968); from the Canada Research Chairs program through a Tier 1 Canada Research Chair in Inner City Medicine which supports Dr. Evan Wood. A European Commission grant (701698) supports Dr. Klimas.

Prefix: Dr.

First Name: Jan

Last Name: Klimas

Degrees: MA MD Ph.D etc:: Ph.D.

Email: jan.klimas@ucd.ie

CC Email: jan.klimas@bccsu.ubc.ca

Company Affiliation: BC Centre on Substance Use

Mailing Address: St Paul's Hospital

Address 2: 608-1081 Burrard Street

City: Vancouver

State: BC

Zip/Postal: V6Z 1Y6

Country: Canada

Phone: 7789455681

Biography: www.janklimas.com

Membership Year: 2015

Sponsor: Dr. Dennis McCarty, PhD

Research Interests: Treatment Health Services

ID: 73
Relationship between Δ9-tetrahydrocannabinol concentration, anxiety, and depression among racially/ethnic diverse cannabis users

Denise Vidot, University of Miami, dvidot@med.miami.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Behavior

Abstract: AIM: Cannabis with high cannabidiol (CBD) concentration is sometimes prescribed to manage anxiety and posttraumatic stress disorder. However, the relationship between Δ9-tetrahydrocannabinol (THC) and severity of anxiety and depression is unclear. The aim of this study was to examine the association of chronic cannabis use and THC concentration with anxiety and depression severity. METHODS: Hispanic/Latino and African American recreational cannabis users (n=25) and never users (n=25) matched for age, gender, income, and race/ethnicity were recruited from South Florida. Cannabis use was quantified via urine toxicology analysis of the THC metabolite, tetrahydrocannabinol carboxylic acid (THC-COOH). Cannabis use frequency and route of administration was collected via audio computer-assisted self-interview (ACASI). Beck Anxiety (BAI) and Beck Depression Inventories (BDI) were also administered via ACASI. Descriptive statistics and t-tests were calculated. RESULTS: Most cannabis users (68%) reported daily use; all reported smoking as the primary route of administration. Forty percent of users had a urine THC-COOH concentration >500 ng/mL, suggesting chronic/recent use. Over half the cannabis users (52%) were mild-to-moderately anxious compared to 24% of never users (p=0.04). Cannabis users had 6-times the prevalence of depression than never users (24% vs. 4%, p=0.03). Chronic cannabis users (THC-COOH>500 ng/mL) had a lower prevalence mild-to-moderate anxiety (30%) and a lower mean BAI score (5.9) than users with < 5 00 ng/mL of THC-COOH (53.3%, 12.2; both p < 0 .05). There were no significant differences in BDI scores by THC-COOH levels (p=0.51). CONCLUSION: Results suggest that cannabis users score higher on the Beck Anxiety and Depression Inventories than never users. Preliminary analyses suggest that cannabis users with high THC-COOH urine concentration have lower anxiety severity than users with lower THC-COOH urine concentrations, indicating a non-linear relationship. Future studies should consider examining the mechanism behind high THC-COOH concentration and lower anxiety severity among chronic cannabis users.

Willing to present orally: Yes

Financial Support: University of Miami Provost Research Award

Prefix: Dr.

First Name: Denise

Middle Initial: C.

Last Name: Vidot

Degrees: MA MD Ph.D etc:: PhD

Email: dvidot@med.miami.edu

Company Affiliation: University of Miami

Mailing Address: 5030 Brunson Ave

City: Coral Gables

State: FL

Zip/Postal: 33146

Country: United States

Phone: 5613017904

Membership Year: 2014

Sponsor: Dr. James Anthony, Ph.D. and Dr. Margaret Haney

Research Interests: Epidemiology,Prevention

Date of Membership: uprade MIT to Assoc.9.1

ID: 74
Benzodiazepine misuse in patients with substance use disorders

R. Kathryn McHugh, McLean Hospital, kmchugh@mclean.harvard.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Behavior

Abstract: Aims: Benzodiazepine misuse is a growing public health problem, with overdoses rising dramatically in the past 2 decades. People with substance use disorders are at a heightened risk for benzodiazepine misuse. The aim of this study was to characterize benzodiazepine misuse in a sample of adults seeking treatment for opioid and/or alcohol use disorder. Methods: We recruited 350 adults (40% female) receiving inpatient detoxification for a survey-based study. Participants completed a battery of self-report measures on a tablet computer. Results: Of the total sample, 50% reported ever receiving a benzodiazepine prescription, 41% reported a history of misuse and 28% reported a history of regular misuse (>3 times per week). Participants with opioid use disorder were not more likely to receive a benzodiazepine prescription (52% vs. 49%) but were more likely to have misused benzodiazepines compared to those with alcohol use disorder (67% vs. 27%, X2=53.84, p

Willing to present orally: Yes

Financial Support: DA035297; Sarles Young Investigator Award for Research on Women and Addiction

Prefix: Dr.

First Name: R. Kathryn

Last Name: McHugh

Degrees: MA MD Ph.D etc:: Ph.D.

Email: kmchugh@mclean.harvard.edu

Company Affiliation: McLean Hospital

Mailing Address: Proctor House 3, MS 222, 115 Mill Street

City: Belmont

State: MA

Zip/Postal: 02478

Country: United States

Phone: (617) 855-3169

Membership Year: 2013

Sponsor: Dr. Roger Weiss and Shelly Greenfield

Travel Award: 2012

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 75
Associations between posttraumatic stress and alcohol use and alcohol use motives among firefighters: The role of distress tolerance

Maya Zegel, University of Houston, mzegel@central.uh.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Behavior

Abstract: Firefighters represent a unique, vulnerable population at high risk for alcohol misuse and alcohol use disorders. This may be due to high rates of trauma exposure and posttraumatic stress as a result of occupational hazards and the use of alcohol to cope with negative emotional states. To inform specialized alcohol use interventions for firefighters, it is important to understand relevant malleable cognitive-affective factors. Distress tolerance (DT), defined as the perceived ability to withstand negative emotional states, has demonstrated significant associations with both posttraumatic stress and alcohol use. AIM: We hypothesized that, among those with higher levels of posttraumatic stress symptoms, lower levels of DT would be related to more severe alcohol consumption and greater coping-oriented alcohol use motives. METHODS: Participants included 652 trauma-exposed firefighters (93.3% male; Mage = 38.7 years, SD = 8.57) who endorsed lifetime (ever) alcohol use. Participants completed an online questionnaire battery and were compensated with one continuing education credit and a chance to win raffle prizes. A series of regression analyses was conducted. Covariates included sex, age, race, education, relationship status, years in the fire service, and trauma load. RESULTS: Posttraumatic stress symptom severity was positively associated with harmful alcohol use (β = .04, p

Willing to present orally: Yes

Financial Support: This research was unfunded.

Name of Sponsor (If you are NOT) a CPDD Member: Anka A. Vujanovic, PhD

Email Address of Sponsor : aavujano@Central.UH.EDU

Prefix: Ms.

First Name: Maya

Last Name: Zegel

Degrees: MA MD Ph.D etc:: B.A.

Email: mzegel@central.uh.edu

Company Affiliation: University of Houston

Mailing Address: 8700 Main St #2509

City: Houston

State: Texas

Zip/Postal: 77025

Country: United States

Phone: 978-325-0402

Biography: Maya is a first-year doctoral student in the clinical psychology program and a graduate research assistant in the TaSSC at the University of Houston. She received her B.A. in psychology with a minor in public health from Boston University in 2016. After graduation, Maya worked at McLean Hospital with Dr. Amy Janes in the Functional Integration of Addiction Research Laboratory and Dr. Scott Lukas in the Behavioral Psychopharmacology Research Laboratory. At McLean, Maya coordinated multiple projects using fMRI and EEG to examine individual differences between cigarette smokers and those with major depressive disorder. She also worked on studies focused on individuals with alcohol, cocaine, and marijuana use disorders, respectively. Maya's current research interests involve studying the treatment of co-occurring trauma and substance use disorders.

ID: 76
The associations between traumatic experiences and substance use and substance use disorders: Findings from the World Health Organization World Mental Health Surveys

Chrianna Bharat, National Drug and Alcohol Research Centre, University of New South Wales, c.bharat@unsw.edu.au

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Alcohol and illicit drugs

Topic: Epidemiology

Abstract: AIM: Exposure to traumatic events (TEs) is known to be associated with substance use disorders (SUDs). However, most studies focus on a single trauma type, without considering exposure to and accumulation of other TEs. In addition, data is often limited to high-income countries. This study uses cross-national data to investigate the impact of a broad range of TEs, and the cumulative loading of multiple types, on subsequent: commencement of substance use, transition to SUD, and remission from disorder. METHODS: Data come from the World Health Organisation's World Mental Health Survey Initiative. A total of 67,225 respondents across 23 countries were assessed for exposure to 29 TEs as well as lifetime use, SUDs and remission from disorder for both alcohol and illicit drugs. Discrete-time survival analyses were used to examine associations of the type and number of TE categories with transitioning substance use involvement controlling for sociodemographics and comorbidities. RESULTS: Most TE categories were associated with increased odds of commencing alcohol use [odds ratio range (ORR): 1.15-1.91] and drug use [ORR: 1.30-1.91]. Persons exposed to childhood sexual and interpersonal violence were more likely to develop drug abuse [ORR: 1.83-1.91], alcohol abuse [ORR: 1.50-1.91], and alcohol dependence [ORR: 1.33-1.51], and less likely to remit from SUDs [ORR: 0.83-0.84]. Exposure to organised violence (e.g. kidnapping, civilian/relief worker in war zone) was associated with increased odds of drug use disorders [ORR: 1.32-1.45]. The incremental association of each additional TE reduced in magnitude as the number of TEs increased only for commencing drug use, alcohol use and regular alcohol use. CONCLUSION: This study demonstrates the types of TEs associated with transitioning substance use involvement varies both by the stage of use and the type of substance. These findings highlight the potential for the presence and accumulation of TEs as risk factors for SUDs.

Willing to present orally: Yes

Financial Support: Australian National Health and Medical Research Council (#1081984).

Name of Sponsor (If you are NOT) a CPDD Member: Louisa Degenhardt

Email Address of Sponsor : l.degenhardt@unsw.edu.au

Prefix: Ms.

First Name: Chrianna

Last Name: Bharat

Degrees: MA MD Ph.D etc:: BSc (Hons.)

Email: c.bharat@unsw.edu.au

CC Email: c.bharat@unsw.edu.au

Company Affiliation: National Drug and Alcohol Research Centre, University of New South Wales

Mailing Address: 22-32 King St

City: Randwick

State: NS

Zip/Postal: 2031

Country: Australia

Phone: +61 429140583

ID: 77
Variations in healthcare expenditures associated with buprenorphine treatment retention among privately insured adults with opioid use disorder

Ajay Manhapra, Yale University School of Medicine, ajay.manhapra@yale.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Background: Office-based buprenorphine treatment is an effective therapy for opioid use disorder (OUD) that is underutilized due to various reasons including cost of care. There is limited knowledge regarding the relationship between costs to insurers and patients and buprenorphine utilization/treatment retention. Methods: Data from 2012-2014 MarketScan® private insurance claims for patients diagnosed with OUD who initiated buprenorphine and had continuous insurance for 12 months were used to describe average 12-month expenditures for healthcare services and medication costs among patients retained on buprenorphine for ≤90 days (group-1), 91-180 days (group-2), 181-364 days (group-3), and ≥365 days (group-4). Results: The total privately insured healthcare spending averaged $24,456/patient/year after buprenorphine initiation including $2,788 for buprenorphine. The out-of-pocket expenditures for patients averaged $2,820/patient/year including $409/year for buprenorphine. The annual cost of medications was higher and other health service costs were lower with increasing duration of retention (group-1: $2,942 and $28,981; group-2: $3,525 and $22,479; group-3: $4,612 and $20,825; group-4: $6,500 and $13,402, respectively) following buprenorphine initiation (p Among privately insured patients, buprenorphine medication costs are a modest proportion of all healthcare costs, but buprenorphine treatment imposes a significant patient expenditure burden of about $250/month across all retention groups. Patients with lower buprenorphine retention appear to have higher total healthcare costs both before and after buprenorphine treatment initiation.

Willing to present orally: Yes

Financial Support: VA New England MIRECC

Prefix: Dr.

First Name: Ajay

Last Name: Manhapra

Degrees: MA MD Ph.D etc:: M.D.

Email: ajay.manhapra@yale.edu

CC Email: ajmanhapra@yahoo.com

Company Affiliation: Yale University School of Medicine

Mailing Address: 9652 27th Bay Street

City: Norfolk

State: VA

Zip/Postal: 23518

Country: United States

Phone: 2312884848

Membership Year: 2015

Sponsor: Dr. David Fiellin, Ph.D.

ID: 78
Medication for opioid use disorder before and after short-term incarceration in Massachusetts

Alexander Walley, Boston University School of Medicine, awalley@bu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim: People with opioid use disorders (OUD) who are incarcerated in many states are not offered medication for OUD (MOUD) while incarcerated, resulting in increased risk of overdose upon release. New programs in Massachusetts, not yet implemented, seek to address this MOUD treatment gap. To characterize the treatment gap, we described MOUD before and after incarceration in a cohort of Massachusetts' residents with OUD. Methods: We used a database of seven individually linked public health datasets, including death, prescription, addiction treatment, and healthcare utilization information, representing 98% of Massachusetts' residents. We included individuals incarcerated in Department for Corrections prisons between 7/1/2011 and 12/31/2015 for 6 months or less, who had an indication of OUD during 6 months prior to incarceration. We computed proportions of individuals who received MOUD within the month prior incarceration and after release. MOUD was defined as a treatment record for methadone, buprenorphine, or naltrexone. Results: The study included 6300 inmates with median [interquartile range] age of 30 [27,38] years, 50% males. Within one month prior to incarceration, 31% (1981) received MOUD. Of these, 51% (1012) received buprenorphine, 42% (831) methadone, and 7.0% (139) naltrexone. Within 1 month after release, 23% (1464) received MOUD. Of these, 50% (737) received buprenorphine, 37% (526) methadone, and 14% (201) naltrexone. Among the 1981 inmates incarcerated on MOUD, 57% (1123) restarted MOUD within 1 month of release. Among the 4319 inmates incarcerated not on MOUD, 7.9% (341) initiated MOUD within1 month of release. Conclusion: Between 2011 and 2015 in Massachusetts, less than one third of released inmates with OUD received MOUD. For many who were receiving treatment before, incarceration marked an Interruption in MOUD. Few previously untreated inmates initiated MOUD upon release. Opportunity exists for new programs to improve access to MOUD for inmates with OUD and reduce risk of overdose.

Willing to present orally: Yes

Financial Support: Office of National Drug Control Policy and University of Baltimore Combating Opioid Overdose through Community-level Intervention Initiative (G1799ONDCP06B - Walley) National Center for Advancing Translational Sciences, National Institutes of Health, through BU-CTSI Grant Number (1UL1TR001430) Massachusetts Department of Public Health created this cross-sector database and provided technical support for thee analyses

Email Address of Sponsor : awalley@bu.edu

Prefix: Dr.

First Name: Alexander

Middle Initial: Y.

Last Name: Walley

Degrees: MA MD Ph.D etc:: M.D.

Email: awalley@bu.edu

CC Email: alexander.Walley@bmc.org

Company Affiliation: Boston University School of Medicine

Mailing Address: 801 Massachusetts Avenue, 2nd Floor

City: Boston

State: MA

Zip/Postal: 02118

Country: United States

Phone: (617) 414-6975

Fax: (617) 414-4676

Membership Year: 2008

Sponsor: Dr. James Sorensen and Jeffrey H. Samet and Dr. Sandra Comer

Research Interests: Epidemiology,Health Services

Date of Membership: 11.16.18 approved

ID: 79
Marijuana use frequency at college entry predicts incident prescription analgesic and stimulant misuse, cocaine use, and cigarette use during college

Amelia Arria, University of Maryland, School of Public Health, aarria@umd.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Epidemiology

Abstract: Aim: This study aimed to examine the association of marijuana use with increased odds of initiating prescription analgesic misuse and other substance use among college students. Methods: The analytic sample consisted of 953 undergraduates interviewed annually for four years beginning at college entry. Logistic regression models were developed to evaluate the association between past-year marijuana use frequency at Year 1 and incident prescription analgesic misuse, prescription stimulant misuse, tobacco cigarette use, and cocaine use during Years 2-4, holding constant demographics, sensation-seeking, and early conduct problems. Results: At Year 1, 62% used marijuana during the past year (M = 34 days, SD=63 days). The prevalence of incident substance use during Years 2-4 was 11% for prescription analgesic misuse, 10% for cigarettes, 17% for cocaine, and 26% for prescription stimulant misuse. Among participants who were naïve to each substance at college entry, incident use was significantly more prevalent for Year 1 marijuana users compared with non-users. Marijuana use frequency was positively associated with an increased risk for incident use of all four substances. P-values remained significant (p

Willing to present orally: Yes

Financial Support: This presentation was supported by the National Institutes of Health, National Institute on Drug Abuse (R01DA014845 and U01DA040219)

Prefix: Dr.

First Name: Amelia

Last Name: Arria

Degrees: MA MD Ph.D etc:: Ph.D.

Email: aarria@umd.edu

CC Email: kvincent@umd.edu

Company Affiliation: University of Maryland, School of Public Health

Contact Title: Associate Professor

Mailing Address: 1234 School of Public Health Building

City: College Park

State: MD

Zip/Postal: 20742

Country: United States

Phone: (301) 405-9795

Fax: (301) 314-9167

Membership Year: 2009

Sponsor: Dr. Thomas McLellan and Donald Jasinski

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 80
Relationship between overdose experiences prior to incarceration and substance use treatment utilization following release in rural women

Erika Pike, University of Kentucky, erika.pike@uky.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Multiple drugs

Topic: Behavior

Abstract: AIM Overdoses are among the most severe consequences of substance use disorders, particularly among individuals transitioning from incarceration to the community. Yet research is limited on substance use treatment utilization among overdose survivors during re-entry. This secondary data analysis investigated the relationship between overdose experiences prior to incarceration and substance use treatment utilization among rural women transitioning from jail to the community. METHODS High-risk drug using rural women (n=400) were recruited while in jail and a follow-up was conducted three-months post-release (n=385, 96%).A logistic regression examined substance use treatment post-release as the dependent variable and independent variables of baseline overdose (OD) experience (i.e., no experience [n=138], witnessed an OD [n=109], experienced an OD [n=45], both witnessed and experienced an OD [n=93]), days high post-release, and ever attended substance use treatment at baseline. RESULTS Both experiencing and witnessing an OD, as well as number of days high post-release, were significantly associated with attending substance use treatment post-release ($X2(5)=22.8$, $p < 0 .001$). Women who both experienced and witnessed an OD prior to incarceration were three times more likely to enroll in treatment post-release. Odds of attending treatment decreased slightly (0.98 odds) as number of days high post-release increased. CONCLUSION Women who both experienced and witnessed an OD were more likely to attend substance use treatment post-release, suggesting that involvement in risky social networks in addition to high-risk drug use influenced women to seek treatment. Women who reported being high on more days post-release were slightly less likely to attend treatment. Future research should investigate the role of risky social networks in influencing women to seek substance use treatment following re-entry in the community.

Willing to present orally: Yes

Financial Support: NIDA R01DA033866; NIDA T32DA035200

Prefix: Dr.

First Name: Erika

Last Name: Pike

Degrees: MA MD Ph.D etc:: Ph.D.

Email: erika.pike@uky.edu

Company Affiliation: University of Kentucky

Mailing Address: 339 Lafayette Ave. #1

City: Lexington

State: KY

Zip/Postal: 40502

Country: United States

Phone: 5865303692

Membership Year: 2016

Sponsor: Dr. William Stoops, PhD

Research Interests: Pharmacology Behavioral Pharmacology

ID: 81
Are people with severe insomnia able to discontinue chronic hypnotic use

Timothy Roehrs, Henry Ford Health System, troehrs1@hfhs.org

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Sedative-Hypnotics

Topic: Behavior

Abstract: AIM: A concern among physicians prescribing hypnotics is the inability to discontinue chronic hypnotics after chronic use. That concern has never been directly tested in a controlled prospective study using self-administration choice procedures. This is a report of results from an on-going "blinded" clinical trial in which insomnia subjects are instructed to stop taking their study medication after 6 months of nightly use. METHODS: DSM-V diagnosed insomnia subjects, aged 23-61 yrs, (n=25, 21 females), with disturbed sleep (i.e., polysomnographic sleep efficiency of 10 total capsules (1 each took 42, 19, 13, and 10). Among those taking capsules most took one capsule per night and 9 took > 1 capsule. Those 4 taking > 10 were younger (p

Willing to present orally: Yes

Financial Support: NIDA, grant#: R01DA038177 awarded to Dr. Roehrs

Prefix: Dr.

First Name: Timothy

Middle Initial: A.

Last Name: Roehrs

Degrees: MA MD Ph.D etc:: Ph.D.

Email: troehrs1@hfhs.org

Company Affiliation: Henry Ford Health System

Mailing Address: 2799 W. Grand Blvd., CFP-3

City: Detroit

State: MI

Zip/Postal: 48202

Country: United States

Phone: (313) 916-5177

Fax: (313) 916-5167

Membership Year: 2002

Sponsor: Chris Ellyn Johanson & Charles Schuster

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 82
Effects of the synthetic short-acting kappa-opioid antagonist LY2795050 in locomotor and self-grooming behaviors in male and female mice

Eduardo Butelman, The Rockefeller University, butelme@rockefeller.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Neurobiology

Abstract: AIM: Increases in kappa-opioid receptor (KOPr) signaling, caused either by endogenous dynorphins, or by exogenous KOPr agonists, result in aversion, dysphoria and anhedonia, as well as sedative-like effects. Repeated exposure to drugs of abuse including cocaine can result in an upregulation in the KOPr/dynorphin system. The short-acting synthetic kappa antagonist 11C-LY2795050 has been used as a PET radiotracer in clinical and preclinical studies. LY2975050 is structurally related to LY2456302, a medication-like KOPr antagonist which has reached the clinical investigation stage (e.g., Reed et al., 2018; Neuropsychopharmacology 43:739-750). The aim of this study is to evaluate the profile of non-radiolabeled LY2795050 in male and female mice, focusing on its effectiveness in blocking KOPr agonist-induced decreases in locomotion and self-grooming (an ethologically relevant measure of anhedonia). METHODS: The dose-effect curve for the KOPr agonist U50,488 was examined in adult male and female C57BL/6J mice. The effects of LY2795050 (i.p.; n=6-8) were studied, alone and in combination with U50,488 (3.2 mg/kg). Mice were studied for open field locomotion, and in the “splash test” for self-grooming. Data were analyzed with ANOVAs and t-tests. RESULTS: U50,488 (0.1-3.2 mg/kg) caused a dose-dependent decrease in grooming time (p CONCLUSION: The synthetic short-acting KOP-r antagonist LY2795050 prevented locomotor and anhedonic-like deficits caused by the KOPr agonist U50,488. Due to its rapid onset, LY2795050 was also able to rapidly reverse ongoing KOPr-mediated behavioral effects.

Willing to present orally: Yes

Financial Support: NIH-National Institute on Drug Abuse grant, and the Dr. Miriam and Sheldon G. Adelson Medical Research Foundation

Prefix: Dr.

First Name: Eduardo

Middle Initial: R.

Last Name: Butelman

Degrees: MA MD Ph.D etc:: Ph.D.

Email: butelme@rockefeller.edu

Company Affiliation: The Rockefeller University

Contact Title: Res.Asst. Professor

Mailing Address: 1230 York Avenue, Box 171

City: New York

State: NY

Zip/Postal: 10065

Country: United States

Phone: (212) 327-8247

Fax: (212) 327-8574

Membership Year: 1997

Sponsor: Mary Jeanne Kreek & James H. Woods

Travel Award: 1994

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 83
Minocycline does not affect experimental pain or addiction-related outcomes in opioid maintained patients

Caroline Arout, Columbia University Medical Center, Caroline.Arout@nyspi.columbia.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Other

Other Topic: Pain

Abstract: AIM Minocycline, a tetracycline antibiotic, inhibits activation of microglia. In preclinical studies, minocycline prevented development of opioid tolerance and opioid-induced hyperalgesia (OIH). The goal of this study was to determine if minocycline changes pain threshold, pain tolerance, and abuse-related outcomes in individuals with opioid use disorder who are maintained on agonist treatment. METHODS In this double-blind, randomized human laboratory study, 20 participants were randomized to either minocycline (200mg/day) or placebo treatment for 15 days. The study had 3 test sessions (Days 1, 8 and 15 of medication treatment) and one follow-up visit one week after the end of medication. In each test session, participants were assessed on several subjective and cognitive measures, followed by assessment of pain sensitivity using the Cold Pressor Test (CPT). Daily surveys and cognitive measures using Ecological Momentary Assessment (EMA) were also collected four times a day on Days 8 though 14 of treatment, and proinflammatory serum cytokines were assessed before and on the last day of treatment. RESULTS Minocycline treatment did not change pain threshold or tolerance on the CPT ($p > 0.05$). Similarly, minocycline did not change severity of pain, opioid craving, withdrawal, or serum cytokines ($p > 0.05$). Minocycline treatment increased accuracy on a Go/No-Go task ($p < 0.05$). CONCLUSION While these findings do not support minocycline's effects on OIH, minocycline may have a potential use as a cognitive enhancer for individuals with opioid use disorder, a finding that warrants further systematic studies.

Willing to present orally: Yes

Financial Support: This study was conducted during Dr. Arout's postdoctoral fellowship at Yale University School of Medicine (NIDA T32 DA007238; Principal Investigator: I. L. Petrakis) and was supported by the VA New England Mental Illness Research, Education and Clinical Center (MIRECC).

Prefix: Dr.

First Name: Caroline

Middle Initial: A.

Last Name: Arout

Degrees: MA MD Ph.D etc:: Ph.D.

Email: Caroline.Arout@nyspi.columbia.edu

Company Affiliation: Columbia University Medical Center

Mailing Address: Division on Substance Use Disorders

Address 2: 1051 Riverside Drive, Unit 120

City: New York

State: NY

Zip/Postal: 10032

Country: United States

Phone: 646-774-6167

Membership Year: 2014

Sponsor: Dr. Mehmet Sofuoglu, MD

Research Interests: Clinical Drug Development,Pharmaceutical Medicine

ID: 84
Circumstances of overdose among women who inject heroin: Drug, set, and setting

Janna Ataiants, Drexel University Dornsife School of Public Health, jataiants@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Sex Differences

Other Topic: Overdose

Abstract: AIM: Today's discourse about the causes of opioid overdose largely focuses on the pharmacological effects of opioids. Prior research, however, indicates that a drug experience is shaped by complex interactions between the drug, the user's physiological and mental "set," and the wider social and physical "setting." We applied Zinberg's "drug, set, and setting" framework to identify patterns in circumstances leading up to the most recent overdose among marginalized women. METHODS: In-depth semi-structured interviews were conducted with 29 heroin-injecting street-involved women, participants of a Philadelphia harm reduction program, who have ever overdosed and were able to recall the circumstances of their most recent overdose. RESULTS: Overall, participants described their current situation as having limited sources of social support, experiencing unstable housing, and using drugs in precarious places. Three types of primary circumstances preceding the most recent overdose emerged. "Drug" type as a factor was reported by 10 out of 29 women who attributed overdose to the unpredictable quality of street heroin or fentanyl, concurrent use of benzodiazepines, or chasing the "high." "Set" type of circumstances was described by 13 women who reported that their emotional states were disturbed by the experiences of a "good" or "bad" day, leading them to unusual and unsafe drug consumption practices. "Setting" type of circumstances was reported by six women who described their overdose as preceded by a recent change in setting, for example, release from prison, which prompted unsafe drug use practices to address physiological or psychological dependence on drugs. CONCLUSION: Street-involved women who inject heroin exerted minimal control over circumstances leading up to their overdose. Overdose prevention policies should embrace not only individual-level behavioral interventions, but also structural measures to address the overall stress, social isolation, and unsettledness that plague the lives of women who inject heroin.

Willing to present orally: Yes

Financial Support: NIDA T32DA007233-33

Name of Sponsor (If you are NOT) a CPDD Member: Danielle C. Ompad

Email Address of Sponsor : danielle.ompad@nyu.edu

Prefix: Mrs.

First Name: Janna

Last Name: Ataiants

Degrees: MA MD Ph.D etc:: MPA, MA

Email: jataiants@gmail.com

CC Email: ja633@drexel.edu

Company Affiliation: Drexel University Dornsife School of Public Health

Mailing Address: 3215 Market St.

Address 2: Nesbitt Hall, 4th Floor

City: Philadelphia

State: PA

Zip/Postal: 19104

Country: United States

Phone: 6097214364

Sponsor: Danielle C. Ompad, PhD

ID: 85
Adolescent sexual violence trajectories: Substance use and mental health correlates

Quyen Ngo, University of Michigan Injury Prevention Center, qen@umich.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Adolescent

Abstract: AIM The purpose of this study was to identify adolescent sexual violence trajectories and examine substance use correlates of the identified trajectories. METHODS The sample included adolescents from five public middle/high schools in Southeast Michigan. Web-based surveys provided four years of panel data conducted annually among 7th - 12th graders (2009-10 through 2012-13 school years). The sample included 4,744 unique adolescent respondents across four waves of the study. Two-stage data analysis included: 1) latent profile analysis (LPA) to identify potential trajectories based on continuous measures for past-year sexual victimization and sexual perpetration (separately) across the four waves of the study and 2) generalized estimating equations (GEE) to assess which factors (i.e., socio-demographics, past-year substance use, and psychiatric disorders) were associated with identified trajectories from the LPA. RESULTS Based on the analytic model, three group trajectories were defined in the following manner for both sexual victimization and perpetration: (1) 'low/no victimization' (n = 4170, 88%) and 'low/no perpetration' (n = 4600, 97%); (2) 'decreasing victimization trajectories' (n = 292, 6.1%) and 'decreasing perpetration trajectories' (n = 68, 1.4%); (3) 'increasing victimization trajectories' (n = 282, 5.9%) and 'increasing perpetration trajectories' (n = 76, 1.6%). Factors associated with decreasing and increasing trajectory membership compared to low/no included: past-year cigarette, binge drinking, marijuana use, nonmedical prescription drug use, and illicit drug as well as depression, anxiety, ADHD symptoms, and Conduct Disorder symptoms. Post-hoc analyses were conducted to determine temporality of risk behaviors over the course of the study. CONCLUSION Adolescents with past-year substance misuse and mental health problems were more likely to fall into the decreasing and increasing trajectory profiles. This study provides key information in the development of interventions to address sexual violence among adolescents.

Willing to present orally: Yes

Financial Support: NICHD R03HD087520; NIAAA K23AA022641; NCATS 2UL1TR000433; UM Injury Prevention Center; CDC R49CE002099; NIDA R01DA024678

Name of Sponsor (If you are NOT) a CPDD Member: Carol Boyd

Email Address of Sponsor : caroboyd@umich.edu

Prefix: Dr.

First Name: Quyen

Middle Initial: M

Last Name: Ngo

Degrees: MA MD Ph.D etc:: PhD

Email: qen@umich.edu

CC Email: carrieba@umich.edu

Company Affiliation: University of Michigan Injury Prevention Center

Mailing Address: 2800 Plymouth Road

Address 2: Suite B10-G080

City: Ann Arbor

State: MI

Zip/Postal: 48109

Country: United States

Phone: 734-936-9312

ID: 86
Perceived impacts of the Affordable Care Act on buprenorphine treatment

Hannah Knudsen, University of Kentucky, hannah.knudsen@uky.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Policy

Abstract: Aim: Although the Affordable Care Act (ACA) has led to the expansion of Medicaid in the majority of US states, state-level adoption of the Medicaid expansion may vary the ACA's impact on the treatment system. Research is scant on the perceived impacts of ACA according to treatment providers, such as physicians who prescribe buprenorphine for opioid use disorder, and it is unknown whether their perceptions of impacts have changed over time. The present study describes physicians' perceptions regarding impacts of the ACA on buprenorphine treatment over time and compares whether perceived ACA impacts vary by state approaches to the Medicaid expansion. Methods: A national longitudinal sample of buprenorphine-prescribing physicians completed surveys at baseline and 12 months later (n=664). Paired t-tests compared responses to a scale of the ACA's positive impacts on buprenorphine treatment (ranging from 1 ="strongly disagree" to 5="strongly agree") at baseline and follow-up. A multi-level mixed effects regression model was estimated to test the hypothesis that perceived impacts of the ACA would be more positive at 12-month follow-up among physicians practicing in Medicaid expansion states. Results: Although buprenorphine-prescribing physicians, on average, reported ambivalence regarding the impacts of the ACA at both time-points, there was a significant increase in the ACA impact scale at 12-month follow-up (mean=2.90, SD=0.75) relative to baseline (mean=2.73, SD=0.69, t=-6.44, p

Willing to present orally: Yes

Financial Support: This research is supported by the National Institute on Drug Abuse (R33DA035641).

Prefix: Dr.

First Name: Hannah

Middle Initial: K.

Last Name: Knudsen

Degrees: MA MD Ph.D etc:: Ph.D.

Email: hannah.knudsen@uky.edu

CC Email: jminor@uky.edu

Company Affiliation: University of Kentucky

Mailing Address: 845 Angliana Avenue, Room 204

City: Lexington

State: KY

Zip/Postal: 40508

Country: United States

Phone: (859) 323-3497

Membership Year: 2008

Sponsor: Drs. Carl Leukefeld and Dennis McCarty

Travel Award: 2004

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 87
Behavioral testing of nine novel cathinones

Michael Gatch, University of Texas Health Science Center, michael.gatch@unthsc.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Stimulants

Topic: Behavior

Abstract: Aims: A new generation of novel cathinone compounds have been developed as stimulant substitutes to avoid drug control laws and blood tests. 4-Chloromethcathinone, 4-cholorethcathinone, dimethylone, dibutylone, dipentylone, N-ethylpentylone, N-ethylhexadrone, methyl-PHP, and TH-PVP were tested for in vivo psychostimulant-like effects to assess their abuse liability. Methods: Locomotor activity in mice was tested to screen for locomotor depressant effects and to identify behaviorally-active dose ranges and times of peak effect. The discriminative stimulus effects of the five compounds were tested in separate groups of rats trained to discriminate methamphetamine or cocaine from saline. Results: All compounds except TH-PVP produced dose- and time-dependent increases in locomotor activity. TH-PVP was a locomotor depressant and failed to fully substitute for cocaine or methamphetamine. The remaining compounds generally fully substituted for the discriminative stimulus effects of methamphetamine, but some compounds (particularly pyrrolidines) failed to fully substitute for cocaine or were considerably less potent. Conclusions: All compounds but TH-PVP produced a psychostimulant behavioral profile, which suggests that these compounds will have substantial abuse liability in common to other controlled synthetic cathinone compounds. TH-PVP may have limited abuse liability. Pyrrolidines substitutions sometimes lead to reduced efficacy or potency at producing some or all psychostimulant-like effects.

Willing to present orally: No

Financial Support: Support: Supported by NIH N01DA-13-8908 and N01DA-18-8936.

Prefix: Dr.

First Name: Michael

Middle Initial: B.

Last Name: Gatch

Degrees: MA MD Ph.D etc:: Ph.D.

Email: michael.gatch@unthsc.edu

Company Affiliation: University of Texas Health Science Center

Contact Title: Associate Professor

Mailing Address: 3500 Camp Bowie Blvd.

Address 2: Pharmacology & Neuroscience

City: Fort Worth

State: TX

Zip/Postal: 76107-2699

Country: United States

Phone: (817) 735-2062

Membership Year: 2001

Sponsor: S. Stevens Negus, Ph.D. & Michael W. Oglesby,Ph.D

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 88
Entactogenic effect of three cathinones

Michael Gatch, University of Texas Health Science Center, michael.gatch@unthsc.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Club/Designer Drugs

Topic: Behavior

Abstract: Aims: Novel cathinone compounds are often best known as stimulant substitutes, but some are often found in club drug formulations of Ecstasy or Molly as replacements for MDMA. 4-methylethcathinone, 3-fluoromethcathinone, and pentedrone were tested for MDMA-like discriminative stimulus effects to determine their likelihood of interchangeability for entactogenic club drugs. Methods: The discriminative stimulus effects of the three compounds were tested in male, Sprague-Dawley rats trained to discriminate MDMA from saline. Results: All three compounds fully substituted for the discriminative stimulus effects of MDMA. Rank order of potency was 3-FMC>pentedrone>4-MEC. Conclusions: All three compounds were MDMA-like and have potential to be used as substitutes for club drugs, although all three had similar potencies for substitution in methamphetamine drug discrimination (from previous studies) and may have too much psychostimulant-like effects for club-drug users. Not all cathinones produce potent, efficacious MDMA-like discriminative stimulus effects (e.g., methcathinone, MDPV, pentylone) and may not be palatable to club-drug users. Other compounds have been more potent and/or efficacious in producing MDMA-like effects than methamphetamine-like effects (e.g., clephedrone, mephedrone, MDAI) and may be more likely to be used as club drugs.

Willing to present orally: No

Financial Support: Supported by NIH contracts N01DA-13-8908 and N01DA-18-8936.

Prefix: Dr.

First Name: Michael

Middle Initial: B.

Last Name: Gatch

Degrees: MA MD Ph.D etc:: Ph.D.

Email: michael.gatch@unthsc.edu

Company Affiliation: University of Texas Health Science Center

Contact Title: Associate Professor

Mailing Address: 3500 Camp Bowie Blvd.

Address 2: Pharmacology & Neuroscience

City: Fort Worth

State: TX

Zip/Postal: 76107-2699

Country: United States

Phone: (817) 735-2062

Membership Year: 2001

Sponsor: S. Stevens Negus, Ph.D. & Michael W. Oglesby,Ph.D

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 89
Applying the 'cascade of care' conceptualization to the current United States opioid public health crisis

Maria Parker, University of Vermont, Maria.Parker@uvm.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: Aim: Opioid use disorder (OUD) is associated with substantial morbidity and mortality in the United States (US). Enrollment into treatment and long-term retention in care is essential for addressing the opioid epidemic. The 'cascade of care', conceptualized as the proportion of individuals who proceed to need, receive and remain in treatment, provides a pertinent framework to improve health outcomes for OUD. This study aims to estimate the burden of opioid use across the steps of an opioid use care cascade. Methods: The 2017 US National Survey on Drug Use and Health sampled, recruited, and assessed individuals 12 years of age or older (n=56,276), with self-interviews on their opioid use, misuse (i.e., use beyond a prescriber's intent), and their recent treatment history. Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV) criteria were used to identify those with a past year OUD. Results: Among the 33% of the population reporting any past-year opioid, 12% reported misuse of opioids. Of those, 18% met DSM-IV criteria for OUD, which translates to an estimated two million people in the US. Finally, among these individuals with OUD, 70% were not engaged in care and only 18% reported receiving sustained OUD treatment. Conclusion: The vast majority of individuals with current OUD were not receiving treatment for this chronic, life-threatening disorder. More aggressive and innovative efforts are urgently needed to expand treatment access for OUD. Further, these estimates likely underestimate the burden of opioid use in the US. Effective state reporting may supplement national estimates in proactively identifying individuals at each step of the 'cascade of care'. This conceptualization may help track treatment enrollment and patient outcomes in order to inform strategies for tailored interventions and to reduce overdose death and opioid-related mortality.

Willing to present orally: Yes

Financial Support: Centers of Biomedical Research Excellence P20GM103644 award from the National Institute on General Medical Sciences

Prefix: Dr.

First Name: Maria

Middle Initial: A

Last Name: Parker

Degrees: MA MD Ph.D etc:: Ph.D., M.S., M.P.H.

Email: Maria.Parker@uvm.edu

Company Affiliation: University of Vermont

Mailing Address: 1 South Prospect

City: Burlington

State: VT

Zip/Postal: 05401

Country: United States

Phone: 8026560206

Membership Year: 2013

Sponsor: Dr. James Anthony, Ph.D.

Research Interests: Epidemiology

Date of Membership: eiligble for 8.1.17

ID: 90
A brief intervention with mobile boosters for drug use and sexual risk behaviors among emerging adults in an urban emergency department

Erin Bonar, University of Michigan, erinbona@med.umich.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Prevention

Abstract: Aims: Emerging adults (EAs, ages 18-25) in urban, resource-poor locations experience disparities in access to prevention interventions for drug use and sexual risk behaviors. The Emergency Department (ED) visit provides a teachable moment for initiating brief interventions (BIs) that can be extended into via mobile approaches. We describe the development and acceptability of an ED-based in-person motivational interviewing-based (MI) BI for drug use and sexual risk behaviors extended via daily mobile boosters tailored to drug use motives. Methods: We used MTurk to crowdsource content ideas for MI-based booster messages delivered via a mobile app then developed and refined the BI and boosters through focus testing. We recruited and randomized 63 EAs (eligibility: ages 18-25, past 28-day drug use and condomless sex, smartphone, unmarried) from an urban ED to receive: BI+boosters (n=31) or enhanced usual care (n=32). Intervention participants reported their perceptions of the BI+boosters. Results: Participants were M=21.7 years-old, 66.7% female, 47.6% Black/African American and 38.1% White/Caucasian (14.3% other backgrounds). For the in-person BI: 87.5% liked/liked a lot talking with a counselor, 95.8% liked/liked a lot the session, 91.6% would very much/definitely recommend the session, 87.5% found it somewhat/very helpful to talk about their substance use, and 87.5% found it somewhat/very helpful to talk about their sexual relationships. Among 22 intervention participants, 77.3% liked the boosters, 81.8% would very much/definitely recommend the program, 81.8% said the program was somewhat/very helpful in helping them focus areas of importance to them, 90.9% said the messages were somewhat/very helpful. Conclusions: A MI-based BI with tailored mobile boosters for drug use and sexual HIV risk behaviors among EAs from an urban ED was well-received. Future analyses will examine ratings of specific message types and preliminary efficacy data of the intervention relative to control that will be used to refine the intervention for future testing.

Willing to present orally: No

Financial Support: NIDA# 036008 CDC center support R49-CE-002099.

Prefix: Dr.

First Name: Erin

Last Name: Bonar

Degrees: MA MD Ph.D etc:: Ph.D.

Email: erinbona@med.umich.edu

Company Affiliation: University of Michigan

Mailing Address: 2800 Plymouth Rd, Bldg 16, Floor 2

City: Ann Arbor

State: MI

Zip/Postal: 48109

Country: United States

Phone: (734) 764-7936

Fax: (734) 764-7932

Membership Year: 2012

Sponsor: Dr. Maureen Walton-Dr. Mark IIgen and Dr. Amy Bohnert

Travel Award: 2014, NIDA Director's 2018

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 91
Escalation and reinstatement of fentanyl self-administration in rats

Samantha Malone, University of Kentucky, samantha.malone@uky.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Behavior

Abstract: AIM: Opioid abuse disorder is characterized by increased intake over time and a high likelihood of relapse. This study determined if escalation of fentanyl self-administration over extended (6 hr) sessions enhanced craving as measured by fentanyl- and yohimbine-induced drug seeking following a period of extinction. METHODS: Adult Sprague-Dawley rats (6 male, 6 female) were trained to self-administer i.v. fentanyl (2.5 ug/kg/infusion) across seven 1-hr sessions, followed by 21 additional sessions of either 1- or 6-hr duration. Both groups were then extinguished on 14 consecutive 1-hr sessions and reinstatement was assessed following pretreatment with either fentanyl (10 or 30 ug/kg, s.c.) or yohimbine (1 or 2 mg/kg, i.p.). RESULTS: During the seven 1-hr acquisition sessions, a lever x session interaction showed that responding increased across sessions on the active lever, but not the inactive lever ($F_{6,66} = 8.18$, $p < 0$ .001). In the next phase, a linear regression analysis indicated that the change in intake across sessions depended on group ($F_{1,194} = 19.7$, $p < 0.001$), with an increase in the 6-hr group only. A group x session interaction was also found when only responses during the first hour were considered ($F_{1,194} = 13.1$, $p < 0$ .001). Both groups decreased active lever responding similarly across extinction sessions ($F_{13,104} = 3.73$, $p < 0$ .001). Analysis of fentanyl-induced reinstatement showed a main effect of dose ($F_{2,16} = 10.52$, $p=0.001$), but fentanyl seeking was similar in both 1- and 6-hr groups. In stress-induced reinstatement, however, there was a significant interaction between yohimbine dose and session duration ($F_{2,15} = 4.09$, $p < 0$ .05). A Dunnett's post-hoc determined that the 6-hr group displayed higher levels of drug seeking following yohimbine compared to vehicle pretreatment (2 mg/kg; $t_{15} = -2.73$, $p < 0$ .05). CONCLUSIONS: These results demonstrate that fentanyl self-administration escalates with extended access. More importantly, extended access potentiated yohimbine-induced drug-seeking, but not fentanyl-induced drug seeking, indicating that escalation of opioid intake increases vulnerability to stress-induced relapse.

Willing to present orally: Yes

Financial Support: NIH Grants DA05312 and R21 DA041755

Prefix: Ms.

First Name: Samantha

Last Name: Malone

Degrees: MA MD Ph.D etc:: B.S.

Email: samantha.malone@uky.edu

Company Affiliation: University of Kentucky

Mailing Address: 2418 Larkspur dr Apt 27B

City: Lexington

State: KY

Zip/Postal: 40504

Country: United States

Phone: (423)525-0493

Membership Year: 2018

Sponsor: Dr. Michael Bardo, PhD

Research Interests: Behavioral Pharmacology,Neurobiology

Date of Membership: 11.16.18 approved

ID: 92
Trait impulsivity and self-exposure to non-medical cannabis and alcohol as dimensional predictors of cocaine dependence diagnosis or time of cocaine escalation

Eduardo Butelman, The Rockefeller University, butelme@rockefeller.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Prevention

Abstract: AIM: This observational study examined the relationship between trait impulsivity, as well as maximal self-exposure to cannabis and alcohol, with cocaine dependence (CD) diagnosis (DSM-IV criteria), and with the time of cocaine escalation. We hypothesize that trait impulsivity and greater prior exposure to non-medical cannabis or alcohol may be associated with odds of a diagnosed cocaine use disorder or to rapid escalation of cocaine use. METHODS: The protocol was approved by the Rockefeller University Hospital IRB. Participants were recruited from the greater New York City community. Of the n=1,413 consecutively ascertained volunteers (≥18 years of age), n=403 volunteers with opioid dependence diagnosis were excluded from study, to focus on cocaine dependence diagnosis as an endpoint. Groups compared in this study were n=360 normal volunteers, n=438 with CD diagnoses, and n=212 with other addictive disease diagnoses, but not CD. Trait impulsivity was examined with the BIS-11 scale. Maximal self-exposure to non-medical cannabis and alcohol were characterized dimensionally with KMSK scales. The time of cocaine escalation was defined as the interval between the age of first use, and the age of onset of heaviest use. Univariate analyses, survival analyses, correlations, and a multiple logistic regression were conducted. RESULTS: Ages of onset of maximal use of cannabis and alcohol preceded age of onset of maximal use of cocaine, in volunteers with CD (Friedman's ANOVAs). BIS-11 impulsivity scores, cannabis and alcohol KMSK scores were positive predictors of odds of CD diagnosis, from a multiple logistic regression. However, the aforementioned variables were not correlated with the time of cocaine escalation in volunteers with CD (Spearman correlations). CONCLUSIONS: Trait impulsivity and exposure to non-medical cannabis and alcohol are positive dimensional predictors of the development of CD as a diagnosed disorder, but are not associated with the time of cocaine escalation.

Willing to present orally: Yes

Financial Support: Adelson Medical Research Foundation and NIH-CTSA grant (1UL1TR001866)

Prefix: Dr.

First Name: Eduardo

Middle Initial: R.

Last Name: Butelman

Degrees: MA MD Ph.D etc:: Ph.D.

Email: butelme@rockefeller.edu

Company Affiliation: The Rockefeller University

Contact Title: Res.Asst. Professor

Mailing Address: 1230 York Avenue, Box 171

City: New York

State: NY

Zip/Postal: 10065

Country: United States

Phone: (212) 327-8247

Fax: (212) 327-8574

Membership Year: 1997

Sponsor: Mary Jeanne Kreek & James H. Woods

Travel Award: 1994

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 93
Impact of opioid use disorder on hospital disposition and readmissions

Jillian Zavodnick, Sidney Kimmel Medical College at Thomas Jefferson University, jillian.zavodnick@jefferson.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Other

Other Topic: General medical care

Abstract: AIM To quantify the impact of opioid use disorder (OUD) on AMA discharge and readmissions, and to explore the impact of withdrawal treatment strategies. People who inject drugs risk medical complications such as bloodstream infection and endocarditis. These conditions require prolonged intravenous antibiotics, usually in a supervised setting to prevent misuse of intravenous access.1 Opioid withdrawal during hospitalization interferes with diagnosis and treatment, and results in frequent discharge against medical advice (AMA); this increases readmissions and mortality.2,3 Failure to treat withdrawal also contributes to patients' lack of trust in providers.4 METHODS Retrospective chart review of all patients admitted to a large urban academic hospital in one year for whom an OUD claim code was submitted. The outcomes of interest were AMA discharge and 30-day readmission. We determined presence of orders for methadone and psychiatric consultation. RESULTS 920 admissions were identified for patients with OUD. While the overall AMA rate for these individuals was 14.4% (compared 1.3% hospital-wide for the same time period), the use methadone did not significantly reduce the likelihood of AMA discharge (16.8 versus 13.6%, p>0.05). Methadone also did not lower readmission rates (13.6 versus 12.4%, p>0.05). Interestingly, psychiatric consultation significantly increased both 30 day readmission and AMA rates (p CONCLUSION As expected, patients with OUD were more likely to be discharged AMA. Contrary to prior studies, methadone had no effect, and psychiatry consultation was associated with increased AMA risk.2,5 We hypothesized that patients at highest risk for AMA discharge are identified clinically and are more likely to receive methadone or psychiatry consultation, though overall AMA rate confirms high risk throughout the study population. Additionally, psychiatry consultation may delay withdrawal treatment or signal lack of primary physician interest in withdrawal. We will repeat this analysis now that our hospital has an opioid withdrawal guideline.

Willing to present orally: Yes

Financial Support: None

Name of Sponsor (If you are NOT) a CPDD Member: Robert Sterling

Email Address of Sponsor : robert.sterling@jefferson.edu

Prefix: Dr.

First Name: Jillian

Last Name: Zavodnick

Degrees: MA MD Ph.D etc:: MD

Email: jillian.zavodnick@jefferson.edu

Company Affiliation: Sidney Kimmel Medical College at Thomas Jefferson University

Mailing Address: 1025 Walnut St Ste 827

City: Philadelphia

State: PA

Zip/Postal: 19107

Country: United States

Phone: 6107241716

ID: 94
Probability discounting of ecstasy use by perceived purity: Effects of adulterant-related information

Sean Dolan, Johns Hopkins University School of Medicine, sean.dolan@live.unthsc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Club/Designer Drugs

Topic: Behavior

Abstract: Aim: “Ecstasy” typically contains adulterants in addition to, or in lieu of, MDMA which may pose a greater risk to users than MDMA itself. The current study aimed to evaluate the effectiveness of adulterant-related informational prompts in reducing Ecstasy use using a novel probability discounting task. Methods: An online sample of past-month Ecstasy users (N = 139) answered questions about Ecstasy use and sample testing frequency and completed the Probability Discounting Questionnaire (PDQ) and the Ecstasy Severity of Dependence Scale (ESDS). Participants were randomized to one of four different prompt conditions: no prompt; a prompt describing MDMA’s effects; a prompt describing adulterants as inert “filler”; or a prompt describing adulterants as pharmacologically-active, potentially-dangerous compounds. Each prompt contained general, potential public-health information that was not specifically related to the subsequent behavioral task. All participants then completed an identical Drug Purity Discounting Task, in which they indicated the likelihood of using a sample of Ecstasy across different probabilities of the sample being impure. Results: Likelihood of Ecstasy use decreased as impurity probability increased across conditions. Ecstasy-use likelihood was highest in the “inert” prompt condition relative to the other conditions. Ecstasy-use likelihood did not differ among conditions when the likelihood of sample impurity was 0. Forty-eight percent of participants indicated never testing the purity of their Ecstasy samples. There was no relation between probability discounting of drug use and ESDS or PDQ scores across conditions. Conclusions: Despite low rates of Ecstasy sample testing, likelihood of Ecstasy consumption decreased as a function of perceived purity; however, this effect was less pronounced when adulterants were explicitly defined as inert. Altogether, these data highlight the necessity of education regarding pharmacologically-active, rather than inert, adulterants in Ecstasy, and suggest that increased access to sample testing kits may mitigate some of the harms associated with Ecstasy use.

Willing to present orally: Yes

Financial Support: 5R01DA042527-02, T32DA007209

Prefix: Dr.

First Name: Sean

Middle Initial: B

Last Name: Dolan

Degrees: MA MD Ph.D etc:: Ph.D.

Email: sean.dolan@live.unthsc.edu

CC Email: sdolan8@jhmi.edu

Company Affiliation: Johns Hopkins University School of Medicine

Mailing Address: 5510 Nathan Shock Dr

Address 2: 3002

City: Baltimore

State: MD

Zip/Postal: 21224

Country: United States

Phone: 410-550-2983

Fax: 410-550-0030

Membership Year: 2015

Sponsor: Michael B. Gatch, Reg. 2001

Travel Award: 2017

Research Interests: Pharmacology

ID: 95
Polysubstance use patterns and HIV disease severity among those with substance use disorder: Latent Class Analysis

Nicolas Bertholet, Lausanne University Hospital, Nicolas.Bertholet@chuv.ch

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: AIDS/Immune

Abstract: Aim: Polysubstance use is common among people living with HIV infection (PLWH) and substance use disorder (SUD) but its effects are under-studied. We aimed to 1) identify polysubstance use patterns over time with latent class analysis, and 2) assess their associations with HIV disease severity. Methods: We studied a prospective cohort of 233 PLWH who also had SUD. Latent class analysis identified polysubstance use patterns based on the Alcohol Use Disorders Identification Test (consumption) and past 30-day use of cannabis, cocaine, opioids, and tranquilizers. We categorized changes in substance use patterns over 12 months and tested associations between those changes and CD4 cell count and HIV viral suppression at 12 months in linear and logistic regressions, adjusting for baseline values and demographics. Results: At baseline, three patterns (classes) were identified: 18% did not use any substance (NONE), 63% used mostly cannabis and alcohol (CA), and 19% used mostly opioids, cocaine, tranquilizers, cannabis and alcohol (MULTI). At 12 months, 61% were in the same class. Forty percent decreased the number of substances used (MULTI to CA, either to NONE) or remained as NONE; 43% were in CA both times; and 17% increased (NONE to CA or either to MULTI, including remaining MULTI). Adjusted mean CD4 count was lower among participants increasing substance use (mean [95%CI] 446 [318-574]) and among those in CA both times (464 [373-556]) compared to those who decreased or abstained throughout (605 [510-700], p=0.005). No significant difference was observed for HIV viral suppression. Conclusion: We identified distinct substance use patterns among PLWH and SUD: cannabis/alcohol, and opioids with alcohol and other drugs. Patterns changed over time, and changes towards fewer substances or no use were associated with better HIV disease severity (based on CD4 count). Findings may inform clinical advice for PLWH and SUD.

Willing to present orally: Yes

Financial Support: U01AA020784, U24AA020778, U24AA020779, UL1TR001430

Name of Sponsor (If you are NOT) a CPDD Member: Richard Saitz

Email Address of Sponsor : rsaitz@bu.edu

Prefix: Dr.

First Name: Nicolas

Last Name: Bertholet

Degrees: MA MD Ph.D etc:: MD, MSc

Email: Nicolas.Bertholet@chuv.ch

Company Affiliation: Lausanne University Hospital

Mailing Address: Beaumont 21b, P2, 02

City: Lausanne

State: VD

Zip/Postal: 1011

Country: Switzerland

Phone: +41213147351

ID: 96
Non-abstinent treatment outcomes in cannabis use disorder

Daniel Brooks, New York State Psychiatric Institute , Brooksd@nyspi.columbia.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Treatment

Abstract: Aim: Cannabis use disorder (CUD) remains an intractable problem. While abstinence remains a meaningful outcome for potential treatment interventions, changes in self-reported days of use may be an alternative outcome associated with improved quality of life. Three recently completed randomized, placebo-controlled clinical trials investigating different pharmacological interventions for CUD were separately analyzed using self-reported days of use/week. Methods: The three trials were Study-1) Quetiapine vs placebo (PBO; n=113); Study-2) Dronabinol vs. PBO (n=156); and Study-3) Dronabinol and Lofexidine vs. PBO (n=122). The outcome 'Marijuana Use', measured by the number of abstinent days (recorded by Timeline Followback) per week, was categorized into three groups: High Use (0-2 abstinent days), Medium Use (3-5 abstinent days), and Low Use (6-7 abstinent days), and analyzed by longitudinal, multinomial logistic regression. Results: In all three trials there were no significant treatment vs PBO differences in abstinence rates at the end of the studies. However, all three trials exhibited a similar temporal pattern in reduction of categorized Marijuana Use: Starting from about week 5, the odds of Medium Use (compared to High Use) were significantly higher for all three treatments compared to PBO (Study-1: Odds Ratios (OR) range from ORweek5 = 1.56 to ORweek12 = 3.30; Study-2: ORweek4 = 1.49 to ORweek8 = 1.98; Study-3: ORweek6 = 1.66 to ORweek9 = 2.79). Conclusions: While study-end abstinence rates have been a standard treatment outcome for CUD trials, reduction from high to medium use has not been standardly assessed. During the last several weeks of each trial assessed, those on active medication treatments were more likely to move from a daily/near daily pattern of use (5-7 days/week) to a moderate level of use (2-4 days/week). This suggests that certain medications may be more impactful than previously assessed. Future studies and analyses should determine if this pattern is associated with less CUD severity and/or improved quality of life.

Willing to present orally: Yes

Financial Support: NIDA grants: K24 DA029647, P50 DA09236; P50 DA09236, R01 DA031826.

Name of Sponsor (If you are NOT) a CPDD Member: frances r. levin

Email Address of Sponsor : frl2@cumc.columbia.edu

Prefix: Mr.

First Name: Daniel

Middle Initial: J

Last Name: Brooks

Degrees: MA MD Ph.D etc:: MA, LMSW

Email: Brooksd@nyspi.columbia.edu

CC Email: daniel.brooks@nyspi.columbia.edu

Company Affiliation: New York State Psychiatric Institute

Mailing Address: 86 shelley avenue

City: port chester

State: NY

Zip/Postal: 10573

Country: United States

Phone: 6467748181

ID: 97
Posting, texting, and related social risk behavior while high

Joseph Palamar, New York University School of Medicine, joseph.palamar@nyu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Social effects of drug use

Topic: Epidemiology

Abstract: Aim: Posting on social media can have lasting consequences in one's social life and career. Research has not yet focused on social media or more modern forms of communication as social risk factors for individuals high on drugs. This study aims to examine prevalence and correlates of engaging in social media posting and related behavior while high. Methods: We examined data from 872 adults (39.8% female) who were surveyed entering electronic dance music (EDM) parties in New York City and reported lifetime illegal drug use. Participants were asked if they were ever high on a drug while 1) posting on social media, 2) calling or texting someone, and 3) being in a photo. Those answering affirmatively were also asked if they later regretted the behavior. We examined demographic and drug-related correlates of these behaviors. Results: 34.3% posted on social media while high (with 21.4% regretting it), 55.9% had texted or called someone while high (with 30.5% regretting it), and 47.6% had been in a photo while high (with 32.7% regretting it). Females and young adults (age 18-24) were at high risk for posting on social media while high and at higher risk for engaging in more of these behaviors. Past-month marijuana users in particular were at increased risk for engaging in each of these behaviors. Conclusion: Engaging in these behaviors while high on drugs appears to be prevalent, and prevention and harm reduction efforts should seek to prevent or reduce likelihood of social harm that can result from such situations.

Willing to present orally: Yes

Financial Support: This study was funded the National Institute on Drug Abuse (K01DA038800)

Prefix: Dr.

First Name: Joseph

Middle Initial: J.

Last Name: Palamar

Degrees: MA MD Ph.D etc:: Ph.D., MPH

Email: joseph.palamar@nyu.edu

Company Affiliation: New York University School of Medicine

Mailing Address: 180 Madison Avenue

Address 2: Room 1752

City: New York

State: NY

Zip/Postal: 10016

Country: United States

Phone: 6465013555

Membership Year: 2014

Sponsor: Dr. Danielle Ompad and Dr. Judith Brook

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 98
A qualitative study on protective factors for drug use prevention among Black and Hispanic girls

Ijeoma Opara, Montclair State University, oparai1@montclair.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Adolescent

Abstract: Aim: Substance abuse research often overlooks the resiliency of urban girls of color who are not using drugs. The term "girls of color" refers to girls whose racial and ethnic groups have been historically, and continue to be, minoritized and oppressed. The lack of attention to their ability to be resilient and their intersecting diverse identities in substance abuse research further reflects their continued marginalization. Using intersectionality theory as a theoretical framework, this qualitative study uncovered the protective factors that enable Black and Hispanic adolescent girls living in an urban, under-resourced neighborhood to avoid using drugs. Methods: The sample includes eight focus groups that consisted of adolescent females only (N = 57). Female participants were recruited from six youth-serving summer programs throughout the target city. They were between 11 and 17 years of age, with 73% self-identifying as Black (n = 45) and 26% (n = 12) as Hispanic. Results: Participants were critically aware of the influence of their environmental context (i.e., rampant drug dealing and use), lack of vital resources and racial and class discrimination which contributed drug use among girls of color. However, participants highlighted protective factors that helped girls of color in their neighborhood avoid using drugs, including individual resilience nurtured by parents and other adult allies, parents communicating about drug use, and parents modeling prosocial behaviors, especially refraining from using drugs. Conclusion: Findings provide insight for researchers, social workers, and interventionists to create and implement family-centered, strengths-based substance abuse prevention programs that are racial, ethnic, and gender specific for Black and Hispanic adolescent girls.

Willing to present orally: Yes

Financial Support: 1. National Institute on Drug Abuse T 32 Training Grant (5T32 DA07233) 2. Drug Free Communities Grant (DFC) (Grant #SP022-19-01), funded through the Substance Abuse and Mental Health Services Administration (SAMHSA).

Name of Sponsor (If you are NOT) a CPDD Member: Danielle Ompad

Email Address of Sponsor : dco2@nyu.edu

Prefix: Ms.

First Name: Ijeoma

Last Name: Opara

Degrees: MA MD Ph.D etc:: MPH, MSW

Email: oparai1@montclair.edu

Company Affiliation: Montclair State University

Mailing Address: 415 E Westfield Avenue

Address 2: APT 2F

City: Roselle Park

State: NJ

Zip/Postal: 07204

Country: United States

Phone: 908-494-3493

ID: 99
Occupational stress, alcohol use, and alcohol use coping motives among firefighters: The moderating role of distress tolerance

Brooke Bartlett, University of Houston, babartlett2@uh.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Other

Other Topic: risk/resilience factors for alcohol use among first responders

Abstract: Firefighters represent a unique population at high risk for occupational stress and alcohol misuse due to the potential for firefighters to utilize alcohol to cope with the demanding nature of the job. Distress tolerance (DT), defined as the perceived or actual ability to tolerate negative or aversive physical states, is an underlying psychological process with potential to advance our understanding of occupational stress and alcohol use. Aim: We investigated the main and interactive effects of occupational stress and DT with regard to alcohol use and alcohol use coping motives (i.e., social; coping; enhancement; conformity) in firefighters. We hypothesized that higher levels of occupational stress and lower levels of DT would be related to greater alcohol use and greater alcohol use coping motives. Methods: The overall sample included 681 firefighters (93.5% male; Mage=38.63, SD = 8.59) who endorsed lifetime alcohol use. Firefighters completed an online questionnaire battery and received one continuing education credit for completion. Hierarchical regression analyses were conducted in SPSS version 24. A Bonferroni correction (α =.05/5=.01) was applied to control for Type 1 error. Results: Occupational stress was positively associated with alcohol use (β=0.17; p < 0 .001), coping motives (β=0.19; p < 0 .001), social motives β=0.24; p < 0 .001), and enhancement motives (β=0.25; p < 0 .001). Lower levels of DT were significantly associated with greater alcohol use (β=-0.10; p = 0.01), coping motives (β=-0.16; p < 0 .001), and conformity motives (β=-0.10; p = 0.01). Significant interactive effects of occupational stress and DT in relation to coping motives (ΔR2 = .02; β=-0.68; p < 0 .001) were noted. Conclusions: Higher levels of occupational stress among firefighters with low DT were related to a heightened tendency to use alcohol to cope with negative mood states. This is the first study to simultaneously examine these variables in firefighters. This line of inquiry has great potential to inform intervention efforts for this vulnerable population.

Willing to present orally: No

Financial Support: None

Name of Sponsor (If you are NOT) a CPDD Member: Anka Vujanovic

Email Address of Sponsor : aavujano@central.uh.edu

Prefix: Ms.

First Name: Brooke

Middle Initial: A

Last Name: Bartlett

Degrees: MA MD Ph.D etc:: MA

Email: babartlett2@uh.edu

Company Affiliation: University of Houston

Mailing Address: 3131 Timmons Lane apt. 3423

City: Houston

State: Texas

Zip/Postal: 77027

Country: United States

Phone: 7143138644

ID: 100
Varying the timing and frequency of income assistance to reduce escalations in drug use coinciding with government payments: Results of a randomized controlled trial

Lindsey Richardson, University of British Columbia, lrichardson@cfenet.ubc.ca

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Policy

Abstract: Background: The synchronized monthly disbursement of income assistance has been linked to escalations in illicit drug use and a range of serious associated harms, including accidental overdose. However, no study has examined the impacts of different disbursement schedules using a controlled design. Aim: To examine the efficacy of varying income assistance payment timing and frequency in preventing collective escalations in drug use coinciding with government payments. Methods: This randomized controlled trial tested two alternative disbursement schedules. Participants were block randomized 1:2:2 respectively to the synchronized monthly government schedule control or one of two intervention arms in which participants received desynchronized assistance payments outside the week of government payments: a single monthly payment "staggered" arm or semi-monthly payment "staggered & split" arm. Multivariate generalized estimating equations analyzed the impact of the interventions on escalations in drug use, predefined as a 40% increase in the three days starting with government payment day of at least one of: (1) drug use frequency; (2) quantity of drug use; or (3) number of substances used. Results: Between November 2015 and October 2018, our study included 194 participants (median age 43.4, 47.9% women or transgender, 42.7% visible minority) in Vancouver, BC. Intent-to-treat analyses demonstrate significantly reduced likelihood of escalated drug use relative to the synchronized arm in the staggered (Adjusted OR [AOR]=0.38, 95% Confidence Interval [CI]: 0.23-0.63) and staggered & split (AOR=0.57; 95% CI: 0.34-0.98) arms. Findings were consistent in modified per protocol and most other sensitivity analyses, including analyses of the drug use frequency and quantity components of the primary outcome. Conclusion: Experimentally varying the timing and frequency of income assistance payments demonstrably reduces escalations in drug use on government payment days, suggesting a potentially important social policy channel to mitigate community-wide spikes in drug use and associated harms. Future analyses will assess whether the interventions reduce or simply disperse escalations, reduce associated drug harm, or produce negative unintended impacts.

Willing to present orally: Yes

Financial Support: This study was supported by the Canadian Institutes of Health Research (CIHR; MOP 136827), a CIHR Foundation grant (FDN 154320) that supports the research activities of LR as well as The Peter Wall Institute for Advanced Studies, the Michael Smith Foundation for Health Research (MSFHR), and a PHCRI and VCHRI joint Innovation and Translational Award funded by the Providence Health Care Research Institute. LR and MJM are supported by CIHR New Investigator Awards (MSH 21672;) and MSFHR Scholar Awards, and AL is supported a Social Sciences and Humanities Research Council master's award. MJM is additionally supported in part by the United States National Institutes of Health (U01-DA021525). His institution has received an

unstructured gift to support him from NG Biomed, Ltd., a private firm applying for a government license to produce cannabis. He is the Canopy Growth professorship in cannabis science which was established through unstructured gifts to the University of British Columbia from Canopy Growth, a licensed producer of cannabis, and the Ministry of Mental Health and Addictions of the Government of British Columbia. This research was undertaken, in part, thanks to funding from the Canada Research Chairs program through a Tier 1 Canada Research Chair in Inner City Medicine, which supports EW, Director of British Columbia Centre on Substance Use.

Name of Sponsor (If you are NOT) a CPDD Member: Seonaid Nolan

Email Address of Sponsor : seonaid.nolan@bccsu.ubc.ca

Prefix: Dr.

First Name: Lindsey

Last Name: Richardson

Degrees: MA MD Ph.D etc:: Ph.D

Email: lrichardson@cfenet.ubc.ca

CC Email: lindsey.richardson@bccsu.ubc.ca

Company Affiliation: University of British Columbia

Mailing Address: 6303 NW Marine Drive

City: Vancouver

State: BC

Zip/Postal: V6T 1Z1

Country: Canada

Phone: (604) 418-5321

ID: 101
Identifying predictors of pain intensity following discontinuation of long-term opioid therapy among patients with and without substance use disorders

Travis Lovejoy, VA Portland Health Care System, lovejoy@ohsu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Behavior

Abstract: Aim: We recently demonstrated that among chronic pain patients with and without substance use disorders (SUDs), pain intensity does not change on average following discontinuation of long-term opioid therapy (LTOT). Furthermore, patients fall into one of four discrete groups characterized by no, mild, moderate, or severe pain intensity in the year following opioid discontinuation. The aim of this study was to characterize differences between the groups. Methods: Retrospective electronic health record data were obtained from a national sample of N=600 U.S. Department of Veterans Affairs (VA) patients who discontinued LTOT in 2012. Data included demographic and clinical characteristics of the sample, and pain intensity ratings (using a 0-10 numeric rating scale) obtained during routine outpatient clinical encounters in the year preceding and following opioid discontinuation. Results: Growth mixture models identified four groups of pain intensity trajectories: subclinical pain (30% of the sample; average pain at discontinuation=0.05), mild clinically-significant pain (17%; average pain=3.59), moderate clinically-significant pain (27%; average pain=5.97), and severe clinically-significant pain (26%; average pain=7.83). Pain trajectories in each of the four groups were characterized by statistically significant, but non-clinically meaningful, reductions in pain over time. Ordinal logistic regression analyses demonstrated that variables significantly associated with a greater likelihood of higher pain intensity group membership were having an alcohol or other SUD, excluding nicotine (OR=1.38, 95% CI=1.00-1.92), higher average pain intensity prior to discontinuation (OR=1.27, 95% CI=1.19-1.37), and being discontinued from LTOT by a treating clinician versus discontinuing of one's own volition (OR=1.64, 95% CI=1.05-2.56). Conclusion: Patients with co-occurring SUD, higher pain intensity, and those forced to discontinue LTOT by treating clinicians were more likely to experience higher and persistent pain following discontinuation of LTOT. These findings point toward groups of patients that may be targeted for additional integrated pain treatment options during and after prescription opioid discontinuation.

Willing to present orally: Yes

Financial Support: This work was supported by grant IK2HX001516 from the U.S. Department of Veterans Affairs Health Services Research & Development.

Name of Sponsor (If you are NOT) a CPDD Member: Sterling McPherson, PhD

Email Address of Sponsor : sterling.mcpherson@wsu.edu

Prefix: Dr.

First Name: Travis

Middle Initial: I

Last Name: Lovejoy

Degrees: MA MD Ph.D etc:: PhD, MPH

Email: lovejoy@ohsu.edu

CC Email: travis.lovejoy@va.gov

Company Affiliation: VA Portland Health Care System

Mailing Address: 3710 SW U.S. Veterans Hospital Road

Address 2: Mail Code: R&D 66

City: Portland

State: OR

Zip/Postal: 97239

Country: United States

Phone: 1-503-220-8262 x57744

ID: 102
Reduction in non-abstinent WHO drinking risk levels and psychiatric and drug use disorders: 3-year follow-up results in the US general population

Justin Knox, Columbia University, justinryanknox@gmail.com

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Epidemiology

Abstract: AIM: Abstinence is a widely-recognized goal for alcohol treatment, but non-abstinent drinking reductions could be used as clinical trial efficacy indicators if they offer clinical benefit, and also to broaden interest in treatment for alcohol use disorders among individuals with alcohol problems who are uninterested in abstinence goals. Interest is growing in the World Health Organization (WHO) drinking risk levels (very-high, high, moderate, low) as non-abstinent drinking reduction outcomes for clinical trials. Previous studies suggest that reductions in WHO risk levels lower the risk of some adverse outcomes. The extent to which WHO drinking risk reduction affects other outcomes – e.g. psychiatric, and drug use disorders – remains to be determined. METHODS: In a US national survey (NESARC), 22,005 drinkers participated in Wave 1 interviews (2001-2002) and Wave 2 follow-ups 3 years later (2004-2005). WHO risk drinking levels (average volume of ethanol/drinking day), psychiatric (depressive/anxiety) and drug use disorders were assessed at both waves. Logistic regression evaluated the relationship between Wave 1-Wave 2 change in WHO drinking risk levels and the risk of psychiatric and drug use disorders at Wave 2. RESULTS: At Wave 1, very-high-risk drinkers (>7 US standard drinks per drinking day for men; >4 drinks for women; n=2,729) had the highest prevalence of psychiatric and drug use disorders. In this group, 1-, 2- and 3-level decreases in WHO risk level by Wave 2 were all associated with lower prevalence and adjusted odds of Wave 2 psychiatric and drug use disorders ($p < 0$ .0001). Among high-risk drinkers, 2-level decreases predicted lower risk of Wave 2 psychiatric and drug use disorders. CONCLUSION: Results support the use of reductions from very-high WHO drinking risk levels as indicators of treatment efficacy. WHO drinking risk levels could be used internationally to guide clinical trial design and clinical care.

Willing to present orally: Yes

Financial Support: Funding is acknowledged from R01AA025309 (PI: Hasin), New York State Psychiatric Institute, the Alcohol Clinical Trials Initiative, and NIDA (T32DA031099, PI: Hasin)

Name of Sponsor (If you are NOT) a CPDD Member: Deborah Hasin

Email Address of Sponsor : deborah.hasin@gmail.com

Prefix: Mr.

First Name: Justin

Last Name: Knox

Degrees: MA MD Ph.D etc:: PhD

Email: justinryanknox@gmail.com

CC Email: justinryanknox@gmail.com

Company Affiliation: Columbia University

Mailing Address: 622 West 168th street

City: New York

State: NY

Zip/Postal: 10032

Country: United States

Phone: 2067959530

Travel Award: NIDA Diretor 2017

ID: 103
Health care providers asking adolescents about their marijuana or illegal drug use: Differences by state medical marijuana status, 2015-2017

Pia Mauro, Columbia University, pmauro@jhsph.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Adolescent

Abstract: Aim: Enactment of medical marijuana laws (MMLs) has not yet been associated with higher marijuana use among adolescents. While knowledge of state-level MMLs among adolescents is low, screening by care providers could differ by MML status. We hypothesized that adolescents in MML states would be more likely to be asked about drug use than adolescents in non-MML states.

Methods: We obtained public-use data from n=41,579 adolescents ages 12-17 in the 2015-2017 National Survey on Drug Use and Health, which indicated MML status in respondents' state of residence. Variables included adolescents self-reported past-year marijuana use, having at least one healthcare encounter (emergency room, inpatient, outpatient), and providers asking about marijuana or illegal drug use in these encounters (i.e., "drug screening", verbal or written). We described the association between MML, healthcare encounters, and drug screening, and tested effect modification by self-reported marijuana use. Models accounted for complex survey design and controlled for race/ethnicity, gender, insurance, income, and year. Results: Adolescents in MML states were more likely to report a healthcare encounter than those in non-MML states (83.8% vs. 81.8%, $p < 0.0001$). Among adolescents with a healthcare encounter, drug screening was higher in MML vs. non-MML states (41.4% vs. 35.4%, $p < 0.0001$). Adjusted odds of drug screening were significantly higher among adolescents in MML states (adjusted odds ratio[aOR]=1.23, 95% CI=1.15-1.31), with past-year marijuana use (aOR=1.67, 95% CI=1.46-1.91), and 22% higher for those who both lived in a MML state and reported marijuana use (interaction p-value < 0.05). Conclusion: Adolescents in MML states were more likely to report a past-year healthcare encounter and to report being asked about drug use in these encounters than adolescents in non-MML states. Higher drug use monitoring by providers in MML states could contribute to the null effects of MML on youth marijuana use. Mechanisms of action and broader implications will be discussed.

Willing to present orally: Yes

Financial Support: K01DA045224 (Mauro), R01DA037866 (Martins), K01DA039804 (Philbin)

Name of Sponsor (If you are NOT) a CPDD Member: Silvia Martins

Email Address of Sponsor : ssm2183@cumc.columbia.edu

Prefix: Dr.

First Name: Pia

Middle Initial: M.

Last Name: Mauro

Degrees: MA MD Ph.D etc:: Ph.D

Email: pmauro@jhsph.edu

CC Email: pm2838@cumc.columbia.edu

Company Affiliation: Columbia University

Mailing Address: 722 W 168th St

Address 2: ARB 507

City: New York

State: NY

Zip/Postal: 10032

Country: United States

Phone: 212-305-9366

Membership Year: 2012

Sponsor: Dr. Debra Furr-Holden

Research Interests: Epidemiology,Psychiatric/Medical Morbidity

ID: 104
Associations between delay discounting and measures of cannabis use frequency in a large sample of cannabis users

Michael Sofis, Dartmouth College, michael.j.sofis@dartmouth.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Behavior

Abstract: Aim. Delay discounting (DD), the devaluation of future events, is characterized as a form of impulsivity and is generally positively related to substance use frequency. Findings pertaining to relations between DD and cannabis use frequency, however, are mixed. Small sample sizes, imprecise frequency measures, and inclusion of primarily those who infrequently use cannabis may obfuscate the relationship. This study evaluated whether more frequent cannabis users would demonstrate higher rates of DD in a large sample of moderate to heavy current users (n = 2,516). Methods. DD (5- trial DD), cannabis use frequency (# of use days last month and times used per day), tobacco cigarette use, and demographics were assessed. Participants were divided into four frequency groups: (1) moderate # of days of use (20 days) and high times per day (>2x/day) HD/HT (n= 1767; 70.2%); (3) MD/HT (n= 322; 12.8%); and (4) HD/MT (n=184; 7.3%). An ANCOVA tested between-group differences in DD controlling for demographics and tobacco cigarette use. Results. A significant main effect of cannabis use group on DD was observed after controlling for covariates, F(3, 9) = 13.90, p .01). Conclusion. These findings highlight how assessing multilevel use frequency patterns may enhance understanding of relations between cannabis use, decision-making, and other psychological constructs. Future directions will be discussed, including using statistical methods to empirically determine use profiles from multiple measures of cannabis use frequency.

Willing to present orally: Yes

Financial Support: T32DA037202, P30DA029926, R01DA032243

Prefix: Dr.

First Name: Michael

Middle Initial: J

Last Name: Sofis

Degrees: MA MD Ph.D etc:: PhD

Email: michael.j.sofis@dartmouth.edu

CC Email: sofismichael2@gmail.com

Company Affiliation: Dartmouth College

Mailing Address: 24 School St.

Address 2: Apt. 2

City: Hanover

State: NH

Zip/Postal: 03755

Country: United States

Phone: 6036467085

Membership Year: 2018

Sponsor: Dr. Alan Budney, PhD

Research Interests: Behavioral Pharmacology,Etiology

Date of Membership: 11.16.18 approved

ID: 105
Time of escalation of drug use in persons dually diagnosed with opioid and cocaine dependence: Gender differences and dimensional correlates

Eduardo Butelman, The Rockefeller University, butelme@rockefeller.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Sex Differences

Abstract: AIM: This study examined whether persons dually diagnosed with opioid and cocaine dependence (OD+CD; DSM-IV criteria) have similar times of escalation of heroin or cocaine, across genders. The study also examined whether trait impulsivity and prior levels of exposure to non-medical cannabis or alcohol are related to the time of heroin or cocaine escalation. METHOD: 1,413 sequentially ascertained adult volunteers from the New York City metropolitan area were examined in an observational study. The protocol was approved by the Rockefeller University Hospital IRB. Instruments administered were the SCID-I diagnostic interview (DSM-IV criteria), the BIS-11 Impulsiveness Scale, and the KMSK scales (dimensional measures of maximal exposure to specific drugs). Time of escalation is defined as the interval between age of first use and age of onset of heaviest use, for each drug. Univariate analyses, survival analyses and correlations were conducted. RESULTS: In volunteers diagnosed with OD+CD (n=297), the median ages of onset of heaviest use of cannabis (15 years) and alcohol (19 years) preceded those for heroin (25 years) and cocaine (26 years; Friedman's ANOVA, $p < 0.0001$). In volunteers with OD+CD, median time of escalation was significantly faster in females compared to males for heroin (1 year versus 3 years, respectively; $p < 0.03$), but not for cocaine (6 years versus 5.5 years, respectively, n.s.). Time of escalation of heroin or cocaine in volunteers with OD+CD was not significantly correlated to trait impulsivity, maximal cannabis exposure, or maximal alcohol exposure (as measured by KMSK scales). CONCLUSIONS: Among persons dually diagnosed with OD+CD, escalation was faster in females than in males for heroin, but not for cocaine. This shows that gender differences in time of escalation may be specific for particular types of drugs (i.e., mu-opioid agonists as opposed to cocaine), even when examined within the same persons.

Willing to present orally: Yes

Financial Support: Adelson Medical Research Foundation and NIH-CTSA grant (1UL1TR001866)

Prefix: Dr.

First Name: Eduardo

Middle Initial: R.

Last Name: Butelman

Degrees: MA MD Ph.D etc:: Ph.D.

Email: butelme@rockefeller.edu

Company Affiliation: The Rockefeller University

Contact Title: Res.Asst. Professor

Mailing Address: 1230 York Avenue, Box 171

City: New York

State: NY

Zip/Postal: 10065

Country: United States

Phone: (212) 327-8247

Fax: (212) 327-8574

Membership Year: 1997

Sponsor: Mary Jeanne Kreek & James H. Woods

Travel Award: 1994

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 106
How long should pharmacotherapy last for the treatment of opioid use disorder? Results from a 12-month observational study

Walter Ling, University of California Los Angeles, lwalter@ucla.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM Despite an increasing recognition that long-term pharmacotherapy for opioid use disorder (OUD) is worthwhile, optimal treatment duration remains unclear. We aimed to describe outcomes among participants who received a year-long buprenorphine, followed by any or no pharmacotherapy. METHODS Using data from the RECOVER (Remission from Chronic Opioid Use: Studying Environmental and SocioEconomic Factors on Recovery, NCT03604861) observational study, we focused on participants who received 12 buprenorphine extended-release monthly injections (BUP-XR) within an OUD trial and compared their outcomes by whether further pharmacotherapy was ever used during a 12-month observation period. Key 12-month endpoints included abstinence (urine drug screen negative), cravings (Opioid Craving Scale>0), moderate or severe psychological distress (Kessler 6 items≥5), possible significant functional impairment (any Sheehan Disability Scale item≥5), and moderate-to-severe depression (Beck's Depression Inventory II>20). RESULTS Of 212 included participants, 133 received further pharmacotherapy (mean age 45,2, 68.4% male, 53.4% white, 87.2% stably housed at observational baseline) and 79 no further pharmacotherapy (mean age 44.7, 64.6% male, 53.2% white, 83.5% stably housed). At the 12-month observational visit, pharmacotherapy vs. no pharmacotherapy participants were nominally more likely to be abstinent (71.2% vs. 62.3%, P=0.185) but more likely to report cravings (45.2% vs. 28.3%, P=0.046). Similar proportions of pharmacotherapy vs. no pharmacotherapy groups reported psychological distress (44.3% vs. 39.7%, P=0.529), moderate-to-severe depression (13.1% vs. 12.0%, P=0.823) and functional impairment (23.3% vs. 25.3%, P=0.741). CONCLUSION After year-long BUP-XR, without further pharmacotherapy, approximately two-thirds of participants appeared able to maintain abstinence. They experienced less craving than their counterparts, indicating less pre-occupation with drug memories and successful avoidance of drug triggers. While abstinence was greater in those reporting pharmacotherapy use, other outcomes were similar across groups; those who receive further pharmacotherapy may be precisely the patients who need it. Further research is warranted to better establish personalized OUD treatment duration strategies.

Willing to present orally: Yes

Financial Support: The RECOVER study is sponsored by Indivior Inc, Richmond, VA.

Name of Sponsor (If you are NOT) a CPDD Member: Walter Ling

Email Address of Sponsor : lwalter@ucla.edu

Prefix: Dr.

First Name: Walter

Last Name: Ling

Degrees: MA MD Ph.D etc:: M.D.

Email: lwalter@ucla.edu

Company Affiliation: University of California Los Angeles

Contact Title: Prof. of Psych & Director, ISAP

Mailing Address: 16556 Park Lane Circle

City: Los Angeles

State: CA

Zip/Postal: 90049

Country: United States

Phone: (310) 476-6940

Membership Year: 1993

Sponsor: E.L. Way & G.E. Woody

Nathan B. Eddy Award: 2017

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 107
Risk and protective effects of social network characteristics on substance misuse among Army Reserve and National Guard soldiers

Erin Anderson Goodell, Johns Hopkins Bloomberg School of Public Health, eander60@jhu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Any illicit drug use and alcohol use

Topic: Epidemiology

Abstract: AIM Civilian-based research has established that peers' substance use behaviors are correlated with individuals' own use. Given the distinct cultural and policy-related influences on substance misuse in the military, research is warranted to examine associations between social network characteristics and military personnel substance use. The current study examines how substance use and military affiliation of soldiers' social networks are associated with their own substance misuse. METHODS Data are from Operation: SAFETY (Soldiers And Families Excelling Through the Years), a study of health of Army Reserve and National Guard (R/NG) soldiers and their partners. Analyses were based on 353 R/NG male soldiers and 2,154 social ties. Soldiers' substance misuse outcomes were any past-year illicit drug use and problematic alcohol use. Social network characteristics were illicit drug use, alcohol use, and military affiliation. Unadjusted and adjusted regression models were used to examine relationships between each social network characteristic and soldier substance misuse. RESULTS For soldiers' past-year illicit drug use, greater numbers of both illicit drug-using ties and drinking buddies in the social network were associated with greater risk. Greater numbers of both drinking buddies and heavy-drinking ties in a soldier's social network were associated with increased problematic alcohol use. Greater average number of days drinking with ties in the past month was also associated with increased soldier problem alcohol use. For soldiers who had ever deployed, greater numbers of military-affiliated ties in a network were protective against soldiers' problematic alcohol use. CONCLUSION Multiple substance use-related social network characteristics were associated with greater likelihood of past-year illicit drug use and increased problematic alcohol use use among soldiers. Military-affiliated networks were protective of problematic alcohol use specifically for deployed soldiers. Findings contribute to the understanding of social-ecological risk and protective factors that influence substance misuse in the military.

Willing to present orally: Yes

Financial Support: Research reported in this abstract was supported by grants from the National Institute on Drug Abuse of the National Institutes of Health under awards R01DA034072 to Gregory G. Homish and T32DA007292 to Renee M. Johnson. Research reported in this abstract was also supported by the National Center for Advancing Translational Sciences of the National Institutes of Health under award number UL1TR001412 to the University at Buffalo. The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH.

Prefix: Dr.

First Name: Erin

Middle Initial: M

Last Name: Anderson Goodell

Degrees: MA MD Ph.D etc:: PhD, ScM

Email: eander60@jhu.edu

CC Email: eander60@jhu.edu

Company Affiliation: Johns Hopkins Bloomberg School of Public Health

Mailing Address: 624 N. Broadway

City: Baltimore

State: MD

Zip/Postal: 21205

Country: United States

Phone: 9192606074

Membership Year: 2018

Sponsor: Dr. Gregory G. Homish, PhD

Travel Award: NIDA Diretor's 2018

Research Interests: Epidemiology

ID: 108
Self-administration of α-PVP or mephedrone produces selective patterns of neuroinflammation

Julie Marusich, RTI International, jmarusich@rti.org

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Club/Designer Drugs

Topic: Neurobiology

Abstract: Aims: Synthetic cathinones are stimulants that continue to be abused. This research sought to differentiate behavioral responses associated with neuroinflammatory markers during different stages of synthetic cathinone abuse through rodent self-administration. We hypothesize that stimulant-induced neuroinflammation differs based on mechanism of action and duration of drug exposure, and that these differences are due to underlying neuronal and non-neuronal neurochemical changes. Methods: Male rats were trained to self-administer α-PVP, mephedrone, or saline. Drug exposure stopped for half of each group after autoshaping (n=8/group); the other half self-administered for another 21 days (n=8/group). Relative fold-changes in cytokines were examined in brain tissue from striatum, thalamus, PFC, hippocampus, amygdala, and hypothalamus, and in plasma to examine inflammation. Cytokine signal intensities for α-PVP and mephedrone were normalized to the saline group, and data from groups that self-administered were normalized to the autoshaping groups. A ≥ 1.50-fold difference from control indicated significant upregulation, while a ≤ 0.65-fold difference from control indicated significant downregulation. Results: During autoshaping, rats responded more on the active lever than inactive [p < 0 .05]. Following autoshaping, rats responded more for α-PVP and mephedrone than saline [p < 0 .05]. Throughout the study, exposure to α-PVP and mephedrone downregulated IL-1β in striatum, suggesting a non-selective inflammatory response. In contrast, other cytokines changes indicated neuroinflammatory responses that were based on mechanism of action or duration of drug exposure. Mephedrone exposure upregulated IL-1α in plasma throughout the study, whereas α-PVP exposure consistently downregulated IL-6 and TNF-α in striatum. Both cathinones upregulated CCL2 and IL-1α in hypothalamus and striatum, respectively, but only following autoshaping, while cathinone exposure downregulated TNF-α in PFC only following self-administration. Conclusions: These cytokine changes suggest that synthetic cathinone use likely produces selective patterns of neuroinflammation during the transition from use to abuse. Consequently, treatment need may differ depending on the progression of synthetic cathinone abuse.

Willing to present orally: No

Financial Support: NIDA Grant DA039315

Prefix: Dr.

First Name: Julie

Middle Initial: A.

Last Name: Marusich

Degrees: MA MD Ph.D etc:: Ph.D.

Email: jmarusich@rti.org

Company Affiliation: RTI International

Mailing Address: 3040 Cornwallis Road

Address 2: 136 Hermann

City: Research Triangle Park

State: NC

Zip/Postal: 27709

Country: United States

Phone: (919) 541-6424

Fax: (919) 541-6499

Membership Year: 2011

Sponsor: Dr. Jennifer Wiley

Travel Award: 2011

Research Interests: Behavioral Pharmacology,Clinical Drug Development

ID: 109
A positron emission tomography study of relationships between striatal dopamine function and individual differences in big five personality traits

Lynn Oswald, University of Maryland School of Nursing, oswald@umaryland.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Imaging

Abstract: AIM: Personality traits have been associated with both resilience and vulnerability for psychopathological conditions, such as substance use disorders. Although differences in dopamine (DA) function are hypothesized to underlie variability in several of these traits, there has been little empirical investigation of the hypotheses using positron emission tomography (PET). To our knowledge, the present study represents the first examination of associations between Big Five personality traits and amphetamine (AMPH)-induced DA release (DAREL). METHODS: Fifty-two M/F healthy adults, ages 18-29 yrs., completed the NEO Personality Inventory and underwent two 90-min PET studies with [11C]raclopride. The first scan was preceded at -5 min. by 10 mL intravenous 0.9% NaCl; the second by 0.3 mg/kg AMPH. VOIs included anterior (APU) and posterior (PPU) putamen, anterior (ACN) and posterior (PCN) caudate nucleus, and ventral striatum (VS). Age and gender controlled linear regression analyses were used to evaluate relationships between NEO personality factors and regional DAREL and D2 receptor non-displaceable binding potential (BPND). RESULTS: Associations were observed between Neuroticism and DAREL in the ACN (p=.002) and PCN (p=.006). Primary facets accounting for these relationships were Anger/Hostility and Depression; higher subscale scores were associated with greater DAREL (p

Willing to present orally: No

Financial Support: Supported by NIH R01 DA022433 (LMO), K05 AA020342 (GSW), R01 MH078175 (DFW), M01 RR016500 (UMSOM GCRC), and UL1 TR 001079 (JH ICTR)

Prefix: Dr.

First Name: Lynn

Middle Initial: M.

Last Name: Oswald

Degrees: MA MD Ph.D etc:: Ph.D.

Email: oswald@umaryland.edu

Company Affiliation: University of Maryland School of Nursing

Contact Title: Associate Professor

Mailing Address: 655 W. Lombard Street, Room 575B

City: Baltimore

State: MD

Zip/Postal: 21201

Country: United States

Phone: (410) 706-0928

Membership Year: 2009

Sponsor: Elise Weerts and Joy M. Schmitz

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 110
Race-related stress, types of Illicit drug use, and years of lifetime drug use for incarcerated African American men nearing re-entry

Shawndaya Thrasher, University of Kentucky, ssth233@uky.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Dependence

Abstract: Aims: Racism is empirically established as a significant social stressor that impacts the well-being of racial minorities(Williams & Sternthal, 2010). However, little is known about the association between race related-stress and lifetime illicit drug use for men. The study explores the influence of racism on drug choice and patterns of lifetime use and investigates if social support is a protective factor for incarcerated African American men. Methods: Data was derived from 208 African American incarcerated men nearing release. The sample comprised majority of high school graduates(Md=12,SD=2.53), with an average age of 36(M=36.11) and served a range of 1-920 months incarcerated after age 18(M=94.23). Participants reported lifetime use of cannabis(87.1%), powder cocaine(45.6%), and crack cocaine(27.7%). Logistic regression analyses ascertained whether cultural(M=22.27,SD=9.87, α=.86), institutional(M=9.95,SD=6.77,α=.80), individual(M=10.17,SD=6.91,α=.84), and global racism(M=42.37,SD=21.80,α=.94) are associated with use of a particular drug. Multiple regression analyses examined race-related stress and types of illicit drug use. Additionally, moderating analyses explored whether social supports serve as moderators. Results: Increased levels of institutional(OR=1.071,p < 0 .05) and global racism(OR=1.020,p < 0 .05) are associated with increased odds of using crack cocaine. Increased levels of institutional(OR=1.080,p < 0 .05), global(OR=1.019,p < 0 .05), and cultural racism(OR=1.034,p < 0 .05) are associated with increased odds of using powder cocaine. Multiple regression results reveal increase levels of perceived cultural race-related stress is associated with an increase in the number of years of regular cannabis use(β=.221, t(85)=2.99,p < 0 .05). Across all models, family(p

Willing to present orally: Yes

Financial Support: Supported by: NIDA K08-DA032296; PI: Stevens-Watkins NIDA T32-DA035200 PI: Rush UL1TR001998 PI: CTSA

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Danelle Stevens-Watkins

Email Address of Sponsor : d.stevenswatkins@uky.edu

Prefix: Mrs.

First Name: Shawndaya

Middle Initial: S

Last Name: Thrasher

Degrees: MA MD Ph.D etc:: MA, MSW

Email: ssth233@uky.edu

CC Email: shawndayathrasher@gmail.com

Company Affiliation: University of Kentucky

Mailing Address: 1024 Greendale Road Apt. 7204

City: Lexington

State: KY

Zip/Postal: 40511

Country: United States

Phone: 4044416385

ID: 111
Gender differences in the impact of aerobic fitness and cannabis use on brain structure in adolescents and young adults

Ryan Sullivan, University of Wisconsin-Milwaukee, rmsul@uwm.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Imaging

Abstract: Aim. Cannabis use has been linked with brain structural abnormalities in adolescents and young adults, although findings have been inconsistent. Important moderating factors include gender and aerobic fitness. Gender differences are shown in neuronal development, as well as cannabis effects. Aerobic fitness may also contribute to brain structure, in part due to influence on the endocannabinoid system. We examined whether aerobic fitness moderated the effects of cannabis on brain structure, and whether findings were consistent across genders. Methods. 77 adolescents and young adults (age, M = 21.08; male, 53.25%) completed three weeks of monitored substance use abstinence, VO2 maximum level testing (VO2 max) measuring current aerobic fitness, and magnetic resonance imaging. Whole-brain structural analyses were processed and computed within Freesurfer. General linear regressions were run examining effects of VO2 max, cannabis use, and their interaction on cortical thickness and surface area while controlling for past year alcohol use and gender; results were also examined by genders separately. All analyses were corrected for multiple corrections using Monte Carlo simulations at p=.05. Results. Analyses revealed significant associations between VO2 maximum (aerobic fitness) and cortical thickness in superior and caudal medial frontal, middle and superior temporal, lingual, superior parietal, and lateral occipital regions in females. Further, aerobic fitness moderated the impact of cannabis on fusiform and superior frontal cortical thickness in females. Cannabis use was significantly linked with surface area in fusiform and lateral occipital regions; and, aerobic fitness moderated the relationship between cannabis and fusiform surface area in females. There were no significant structural findings in males. Conclusions. The findings suggest that in females, aerobic fitness moderates the association between cannabis and cortical thickness and surface area in frontal, temporal, and occipital regions. Indicating that aerobic fitness may be a viable intervention for impacting brain structure, although the impact may be sex-specific.

Willing to present orally: No

Financial Support: R01 DA030354, NIDA; PI: Lisdahl, K.M; U01 DAO41025; PI: Lisdahl, K.M.

Name of Sponsor (If you are NOT) a CPDD Member: Krista M. Lisdahl

Email Address of Sponsor : krista.medina@gmail.com

Prefix: Mr.

First Name: Ryan

Middle Initial: M

Last Name: Sullivan

Degrees: MA MD Ph.D etc:: BA

Email: rmsul@uwm.edu

Company Affiliation: University of Wisconsin-Milwaukee

Mailing Address: 904 E Pearson St

City: Milwaukee

State: WI

Zip/Postal: 53202

Country: United States

Phone: 2036712088

ID: 112
Using nominal group technique to identify barriers, facilitators and preferences among patients seeking treatment for opioid use disorder: A needs assessment for decision making support

Scott Farnum, APT Foundation, Inc., sfarnum@aptfoundation.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM The opioid crisis requires rapid scale-up of evidence-based interventions to treat opioid use disorder (OUD), of which maintenance pharmacologic therapies with methadone, buprenorphine, or long-acting naltrexone are most effective. With recently-developed formulations, there are unprecedented treatment options. Even when maintenance pharmacologic treatment is accessible, however, uptake remains low, suggesting individual-level barriers. Decision aids are an evidence-based strategy that may overcome these barriers. This study aims to inform such a tool by describing and rank-ordering patients' considerations when deciding whether to start maintenance medication and, if starting, choosing a medication. Methods Adults with OUD (N=81) attending an addiction treatment center or syringe exchange program completed focus groups using nominal group technique, a consensus method that generates and ranks responses. The qualitative component generates a broad array of responses, followed by rank-ordering to prioritize responses. Responses to questions about starting any maintenance medications and the pros and cons of five specific medications were ranked and coded. Results The decision to initiate pharmacologic maintenance therapy and choose among medications was influenced by six key attributes in decreasing priority: (1) benefits, (2) side effects of treatment, (3) medication delivery strategies, (4) convenience, (5) how expectations for treatment are met, and (6) how maintenance medication can represent trading one addiction for another. Conclusions Pharmacologic properties, logistical factors, and managing expectations were important themes in decision-making for starting, choosing, and staying on maintenance medications, and to a lesser degree, negative views about medications as an addiction itself. Desire for more control persisted in all themes. This study identified specific knowledge gaps, expectations, and priorities which are important for developing a decision aid for OUD treatment relevant to the target group. Nominal group technique is a mixed-methodology that we have applied to a new population and purpose, that of conducting needs assessment for decision aid development.

Willing to present orally: Yes

Financial Support: APT Foundation

Name of Sponsor (If you are NOT) a CPDD Member: APT Foundation, Inc.

Email Address of Sponsor : dleedham@aptfoundation.org

Prefix: Mr.

First Name: Scott

Last Name: Farnum

Degrees: MA MD Ph.D etc:: MS, MPA

Email: sfarnum@aptfoundation.org

CC Email: dleedham@aptfoundation.org

Company Affiliation: APT Foundation, Inc.

Mailing Address: 1 Long Wharf Drive

Address 2: Suite 321

City: New Haven

State: CT

Zip/Postal: 06511

Country: United States

Phone: 203-781-4600

Fax: 203-781-4624

ID: 113
The effect of varenicline on smoking and drinking outcomes by ethnic group

Angela Haeny, Yale University, angela.haeny@yale.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Ethnic Differences

Abstract: AIM: Prior research suggests that pharmacological treatments are not as effective at reducing smoking among Blacks, and there is little research on the effectiveness of Varenicline in reducing drinking among Blacks. Therefore, the aim of this study was to investigate the efficacy of Varenicline on smoking and drinking outcomes by ethnic group. METHOD: The data (N = 125, 70.4% male, and 55.2% Black, agemean = 42.4 years, SD = 11.6) were drawn from a randomized, double-blind clinical trial with parallel groups and a placebo-controlled condition testing the efficacy of Varenicline and medical management to treat alcohol drinking and cigarette smoking. RESULTS: Linear mixed modeling using an intend-to-treat approach indicated mean change in percent heavy drinking days did not vary by ethnic group. Varenicline resulted in a greater percent change in cigarettes smoked per smoking day ($t(111) = 2.55$, $p = .01$), which did not vary by ethnic group. Varenicline also resulted in more patients completely abstinent from tobacco four-months post-randomization (Fisher's Exact Test [FET] $p = .003$); however, this effect varied by ethnicity (FET $p = .02$) such that 2.86% of Blacks and 25.93% of non-Blacks were completely abstinent. CONCLUSION: Although there were no differences in quantitative drinking and smoking measures by ethnicity, Varenicline does not seem to be as effective in achieving abstinence from tobacco among Blacks. Further investigation is needed to understand this difference by ethnic group. Future research could also benefit from replicating this work in larger, more diverse samples.

Willing to present orally: Yes

Financial Support: Supported by R01AA020388, R01AA020389, P50AA012870, T32DA019426, K23AA020000, and K05AA014715 from the National Institutes of Health and by the State of Connecticut Department of Mental Health and Addiction Services. Pfizer generously donated the Varenicline and placebo pills.

Prefix: Dr.

First Name: Angela

Middle Initial: M.

Last Name: Haeny

Degrees: MA MD Ph.D etc:: Ph.D.

Email: angela.haeny@yale.edu

Company Affiliation: Yale University

Mailing Address: 389 Whitney Ave

City: New Haven

State: CT

Zip/Postal: 06511

Country: United States

Phone: 6124082304

Membership Year: 2018

Sponsor: Dr. Brian Kiluk, PhD

Travel Award: Primm Single. 2018

Research Interests: Etiology,Treatment

ID: 114
Examining opioid prescription patterns in safety-net clinics using electronic health records

John Muench, Oregon Health & Science University, muenchj@ohsu.edu

---

Abstract Category: Theoretical/Commentary

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Technology Issues

Abstract: Aims: To describe methods for exploring opioid prescribing patterns in a large network of safety-net, community health centers using a shared electronic health record. Problematic opioid prescribing is concentrated in populations that are impoverished, receive publicly funded health insurance, have high mental health burden, or live in rural areas - populations that are more likely to receive primary care in community health centers (CHCs). Very little is known about the extent of the opioid epidemic in vulnerable CHC patient populations. We use electronic health record data from over 500 primary care CHCs from OCHIN, one of the largest national network of CHCs, to assess trends and multilevel factors associated with opioid prescribing in vulnerable and underserved populations. We define opioid users (approximately 330,000 between 2010-2016) as patients with at least one documented opioid prescription order in the EHR. The use of EHR prescription orders in this study presents both challenges and opportunities. Unlike administrative data sources, OCHIN EHR data include clinical and socioeconomic domains that can more granularly describe the reasons for prescriptions. Challenges include creating algorithms that best define high-risk prescription opioid use patterns (e.g. chronic use, concurrent benzodiazepine use, high doses) as well as the need to make assumptions about prescription "orders" in the absence of fill data which better approximate pharmacy filling patterns and durations. Ultimately, we will use this longitudinal dataset of opioid prescribing to characterize trends and consequences of high-risk opioid prescribing in a population that is understudied, yet disproportionately affected by the opioid crisis. Conclusion: Networked EHR opioid prescription orders can be effectively organized and summarized at multiple levels. Because they are intrinsically linked to many other aspects of a persons' medical history, they can be used to better understand biopsychosocial drivers of opioid prescribing in CHCs.

Willing to present orally: Yes

Financial Support: This study supported by NIH NIDA grant #R01DA046468.

Name of Sponsor (If you are NOT) a CPDD Member: Steffani Bailey

Email Address of Sponsor : bailstef@ohsu.edu

Prefix: Dr.

First Name: John

Last Name: Muench

Degrees: MA MD Ph.D etc:: MD, MPH

Email: muenchj@ohsu.edu

Company Affiliation: Oregon Health & Science University

Mailing Address: 3181 SW Sam Jackson Park Rd.

City: Portland

State: OR

Zip/Postal: 97239

Country: United States

Phone: 503-307-4217

ID: 115
Impact of Affordable Care Act implementation on psychiatric treatment in outpatient substance use disorder treatment settings

Chelsea Shover, Stanford University, clshover@stanford.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: All of the above - substance use treatment generally

Topic: Policy

Abstract: AIM We estimated change in the proportion of United States outpatient substance use disorder treatment sites offering psychiatric treatment following the implementation of the Affordable Care Act (ACA) in 2014. We hypothesized that the proportion of substance use disorder treatment settings with integrated or contracted psychiatric treatment would be greater in 2016-2017 compared to 2013-2014. METHODS Using panel data from the eighth (2013-2014, n=695) and ninth (2016-2017, n=657) waves of the National Drug Abuse Treatment System Survey (NDATSS), we estimated change in the proportion of sites offering antidepressant medication, other psychiatric medications, behavioral therapy, or any combination thereof. We modeled ACA implementation as an interaction between time and Medicaid expansion, (1 for states that implemented Medicaid expansion in 2014; 0 for states that implemented Medicaid expansion later or not at all). We compared sites in states that expanded Medicaid to sites in states that did not. We constructed a mixed-effects linear regression model for each outcome, with the interaction variable as the main exposure, site as a random effect, and site's average duration of treatment, proportion of clients with psychiatric comorbidities, and geographic region as covariates, to estimate a difference in differences equation. RESULTS The adjusted difference in difference analysis indicated that the proportion of substance use disorder treatment sites offering antidepressants for psychiatric treatment increased 10% (p=0.01) in the Medicaid expansion sites compared to non-expansion sites, while the same was observed for other psychiatric medications (10%, p=0.01). No significant changes were observed in behavioral therapy (5%, p=0.3) or the combination measure (5%, p=0.2). CONCLUSIONS Availability of psychiatric medication treatment in substance use disorder treatment settings increased following Medicaid expansion through the ACA. This policy change has facilitated integrated treatment for the substantial share of substance use disorder treatment patients with mental health comorbidities.

Willing to present orally: Yes

Financial Support: Research reported in this publication was supported by the National Institute On Drug Abuse of the National Institutes of Health under Award Number T32DA035165. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Name of Sponsor (If you are NOT) a CPDD Member: Peter Friedmann, MD

Email Address of Sponsor : pdfriedmann@gmail.com

Prefix: Dr.

First Name: Chelsea

Middle Initial: L

Last Name: Shover

Degrees: MA MD Ph.D etc:: PhD

Email: clshover@stanford.edu

CC Email: clshover@stanford.edu

Company Affiliation: Stanford University

Mailing Address: 1070 Arastradero Rd

Address 2: Ste 200

City: Palo Alto

State: CA

Zip/Postal: 94304

Country: United States

Phone: 17172836109

ID: 116
Increasing access to naloxone: The scientific strategy needed to bring naloxone over-the-counter

Judy Ashworth, Pinney Associates, Inc., jashworth@pinneyassociates.com

---

Abstract Category: Theoretical/Commentary

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM: To address the key regulatory, pharmacologic, safety and public health aspects that should be considered when developing a strategy to successfully and responsibly bring naloxone to the over-the-counter (OTC) market. METHODS: Experts in diverse fields – from pharmacology and addiction to behavioral science in how consumers understand and use OTC products – describe the research needed to support a regulatory application to switch naloxone, a prescription (Rx) drug product, to OTC status. RESULTS: Naloxone represents a unique OTC switch opportunity. In no other case does an OTC product provide an acute, life-saving purpose. Most opioid overdose deaths are preventable if naloxone is administered appropriately and in time, yet the current prescription status and high cost of naloxone products limit wide-spread access, despite state-level measures to ease access restrictions (e.g. standing orders). The regulatory process to convert a product from Rx to OTC status must follow FDA's established pathways for such switches and meet a variety of criteria, which emphasize safety and the likely benefit to the public health versus any harms that such a switch may introduce. The widespread availability of OTC naloxone requires careful consideration of its pharmacologic properties; an issue made more critical because of the increasing availability of heroin and the widespread use of potent, illicit fentanyl and fentanyl-analogs. Ensuring that consumers can use naloxone to successfully reverse opioid overdoses requires documenting consumers' understanding of both how and when to administer the product in an emergency situation. CONCLUSION: A scientific approach, balancing the FDA's standard OTC requirements, as well as the unique pharmacology of naloxone and its potential role to reduce opioid-related overdose deaths, suggests that with a well-rounded, responsible strategy, naloxone could be used as a safe and effective OTC product, one with enormous potential benefits to public health.

Willing to present orally: Yes

Financial Support: I am an employee of Pinney Associates.

Name of Sponsor (If you are NOT) a CPDD Member: Jack E. Henningfield

Email Address of Sponsor : jhenning@pinneyassociates.com

Prefix: Dr.

First Name: Judy

Last Name: Ashworth

Degrees: MA MD Ph.D etc:: MD

Email: jashworth@pinneyassociates.com

CC Email: jashworth@pinneyassociates.com

Company Affiliation: Pinney Associates, Inc.

Mailing Address: 1204 Sherman Ave

City: Evanston

State: IL

Zip/Postal: 60202

Country: United States

Phone: 224-285-8165

ID: 117
Improvements in working memory in problem alcohol drinkers during adaptive psychological treatment

Nehal Vadhan, Feinstein Institute for Medical Research, nvadhan@northwell.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Behavior

Abstract: Aim: Problem alcohol drinkers exhibit decreased memory and executive functions relative to healthy controls, which is associated with the severity of reported alcohol use. Our ongoing study aims to examine changes in these characteristics during psychological treatment for problem drinking. Methods: To date, 17 adult (M=51.9 years old [SD=10.3]; 10 female) problem drinkers (31.2 SDUs/week [20.7]) have enrolled in a cognitive testing protocol attached to a 13-week clinical trial of adaptive cognitive-behavioral interventions. This protocol includes the following repeatable Cogstate® computerized tasks (n=13): 1) List-Learning/Recall (declarative verbal learning), 2) Two-back (working memory), and 3) Set-shifting (cognitive flexibility) administered at weeks 1, 4 and 13. Results: At week 13, on average, the participants exhibited increased ($p < 0 .05$) accuracy on the Two-back test relative to weeks 4 (+21%) and 1 (+40%). Consistent with this, the average self-reported number of weekly drinks (TLFB), alcohol withdrawal scores (SAWS) and mood scores (BDI-II) all decreased by ≥ 50% from week 1 - 13 ($p < 0 .05$). Conclusion: Problem drinkers exhibited improvements in working memory performance, but not in verbal learning or cognitive flexibility performance, across a relatively successful psychological treatment. Overall, these data suggest that further research on the relationship between changes in clinical markers and working memory during treatment for problem drinking, is warranted.

Willing to present orally: Yes

Financial Support: R01AA020077

Prefix: Dr.

First Name: Nehal

Middle Initial: P.

Last Name: Vadhan

Degrees: MA MD Ph.D etc:: Ph.D.

Email: nvadhan@northwell.edu

CC Email: nehalvadhan@gmail.com

Company Affiliation: Feinstein Institute for Medical Research

Contact Title: *

Mailing Address: Northwell Health 1010 Northern Blvd, St. 311

City: Great Neck

State: NY

Zip/Postal: 11021

Country: United States

Phone: 516-837-1685

Fax: 516-837-1699

Membership Year: 2005

Sponsor: Richard W. Foltin, Ph.D. and Margaret Haney, Ph.D.

Research Interests: Behavioral Pharmacology,Psychiatric/Medical Morbidity

ID: 118
Nighttime social networking site use by platform and the associations with adolescent and young adult sleep quality, substance use, and anxiety

Melissa Lewis, University of North Texas Health Science Center, melissa.lewis@unthsc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Other Drug Category: Marijuana

Topic: Adolescent

Other Topic: technology

Abstract: AIM: Research has shown social networking site use to be associated with adolescent and young adult health and risk behavior. This study aimed to extend the literature by examining nighttime use (between the hours of 11pm and 5am) of specific social networking site platforms (Snapchat, Instagram, Facebook) in relation to sleep quality, substance use (alcohol, marijuana), and anxiety. METHODS: Adolescents and young adults ages 15-20 (mean age of 18.39 (SD = 1.32, 47% male) completed a survey from which the current data are drawn as part of a larger experimental study. RESULTS: Use of Facebook during nighttime hours was most frequent (64%), followed by Instagram (51%) and Snapchat (34%). Controlling for age, sex, education status, race, alcohol and marijuana use, and anxiety, linear regression results indicated that past week nighttime use of Instagram was associated with fewer hours of sleep at night on average (t=-2.02, p.05). Finally, linear regression results indicated that past week nighttime use of Snapchat was positively associated with past month anxiety (t=2.102, p

Willing to present orally: No

Financial Support: NIH/NIAAA R21AA024163 Principal Investigator Dr. Dana M. Litt

Name of Sponsor (If you are NOT) a CPDD Member: Kris Anderson

Email Address of Sponsor : andersok@reed.edu

Prefix: Dr.

First Name: Melissa

Middle Initial: A

Last Name: Lewis

Degrees: MA MD Ph.D etc:: PhD

Email: melissa.lewis@unthsc.edu

CC Email: melissa.lewis@unthsc.edu

Company Affiliation: University of North Texas Health Science Center

Mailing Address: 3500 Camp Bowie Blvd., EAD 709E

City: Fort Worth

State: Texas

Zip/Postal: 76107

Country: United States

Phone: 817-735-5453

Biography: https://www.unthsc.edu/school-of-public-health/melissa-a-lewis/

ID: 119
Age as a moderator of the association between perceived vulnerability and the posting and deleting of alcohol-related content on social media

Cassidy LoParco, University of North Texas Health Science Center, Cassidy.Loparco@my.unthsc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Technology Issues

Abstract: AIM. Previous research indicates a positive association between alcohol consumption and posting alcohol content on social networking sites. Although social networking site users post and delete alcohol-related content, the mechanisms behind these decisions are unclear. Social networking site perceived vulnerability (PV), or the likelihood that an individual would regret posting while drinking, may make users more aware of consequences associated with posting and deleting of alcohol-related content. Age may be one factor that influences these relationships. As such, we hypothesized that PV would be associated with both posting and deleting alcohol-related content, and that age would moderate these relationships. METHODS. A total of 306 participants (mean age 18.4, 47% male) completed a baseline survey as part of a larger experimental study. Linear regressions controlling for age, sex, and heavy drinking were used to test all models. RESULTS. Results indicated that PV was significantly and negatively associated with posting alcohol-related content (ß = -4.154, p .10). Results indicated that PV was a significant and positive predictor of deleting alcohol-related posts (ß = 1.796, $p < 0.037$) and that age significantly moderated this relation (ß = 2.011, $p < .05$), such that the association was significant for younger (ß = 0.172, $p < .001$), but not older individuals (ß = 0.120, $p < .05$). CONCLUSION. Posting of alcohol-related content may have unwanted results such as guilt or embarrassment and further lead to the deletion of these posts. A targeted intervention aimed at increasing PV, especially among adolescents, may be one way to mitigate these occurrences.

Willing to present orally: No

Financial Support: R21AA024163 (PI: Litt)

Name of Sponsor (If you are NOT) a CPDD Member: Kristen G. Anderson

Email Address of Sponsor : andersok@reed.edu

Prefix: Ms.

First Name: Cassidy

Middle Initial: R

Last Name: LoParco

Email: Cassidy.Loparco@my.unthsc.edu

CC Email: dana.litt@gmail.com

Company Affiliation: University of North Texas Health Science Center

Mailing Address: 3500 Camp Bowie Blvd

Address 2: Suite 708

City: Fort Worth

State: TX

Zip/Postal: 76107

Country: United States

Phone: 817-734-5453

ID: 120
Modulation of stress-induced opioid seeking by hedonic sensitivity

Mark Greenwald, Wayne State University, mgreen@med.wayne.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Behavior

Abstract: Aim: Stress-induced drug-seeking/relapse is a major clinical problem but mechanistic understanding is limited. Stressors may influence affective-dimensional (e.g. hedonic valence and arousal) responding that, in turn, partly determines drug-seeking behavior (Greenwald, 2018). This analysis examined whether stress-induced opioid seeking is modulated by subject-level affective-dimensional linkage, which could provide a mechanism for explaining susceptibility to stress-related drug use. Methods: Opioid-dependent non-treatment volunteers (N=12) stabilized on 8-mg/day buprenorphine received double-blind oral yohimbine (0, 27, 54mg) and/or hydrocortisone (0, 20, 40mg) pretreatment doses (3x3 design; 9-session within-subject crossover) and we measured psychopharmacological effects of these noradrenergic/glucocorticoid drug-combinations. During each exposure condition, volunteers could work for units of hydromorphone (HYD 1.5mg IM) or money ($2) on a 12-trial progressive ratio schedule. ANCOVA examined whether individual differences in hedonic sensitivity modulated effects of yohimbine and hydrocortisone doses on number of HYD choices (opioid seeking). Results: Participants differed markedly in the correlation (across the 9 conditions) between their POMS Arousal and Positive Mood scale ratings (AUC1-4hr), range=.94 to -.78. This correlation ("hedonic sensitivity") was used as a covariate in the yohimbine X hydrocortisone dose analysis of HYD seeking. There was a yohimbine dose (quadratic) X hedonic sensitivity interaction, $F(1,10)=5.85$, $p=.036$, and hydrocortisone dose (linear) X hedonic sensitivity interaction, $F(1,10)=7.74$, $p=.019$. Negative-hedonic sensitivity was significantly associated with both yohimbine inverted-U dose-effect (quadratic slope coefficient; $r2 = .37$) and hydrocortisone linear dose-effect (linear slope coefficient; $r2 = .44$) on HYD choices; in contrast, positive-hedonic sensitivity was associated with minimal effects of yohimbine and hydrocortisone pretreatment doses on HYD choice. Negative-hedonic sensitivity was also significantly correlated with higher pre-experimental BDI-II depression ($r=-.79$) and BIS-11 non-planning impulsivity ($r=-.83$) scores. Conclusion: Negative-hedonic sensitivity increased effects of noradrenergic/glucocorticoid stimulation on opioid-seeking behavior. This affective phenotype may influence susceptibility to stress-related drug use.

Willing to present orally: Yes

Financial Support: NIH/NIDA 2 R01 DA015462, Helene Lycaki/Joe Young Sr. Research Funds (State of Michigan), and Detroit Wayne Mental Health Authority

Prefix: Dr.

First Name: Mark

Middle Initial: K.

Last Name: Greenwald

Degrees: MA MD Ph.D etc:: Ph.D.

Email: mgreen@med.wayne.edu

Company Affiliation: Wayne State University

Contact Title: Professor and Director

Mailing Address: 3901 Chrysler Service Drive, Suite 2A

City: Detroit

State: MI

Zip/Postal: 48201

Country: United States

Phone: (313) 993-3965

Fax: (313) 993-1372

Membership Year: 1996

Sponsor: Charles Schuster & Chris-Ellyn Johanson

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 121
The associations between alcohol-related cognitions and substance use among young adult drinkers

Dana Litt, University of North Texas Health Science Center, dana.litt@unthsc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Other Drug Category: marijuana, stimulants, opioids

Topic: Prevention

Abstract: AIM. Research indicates that young adults use multiple substances, often beginning with alcohol. However, it is less clear if cognitions about alcohol, the most commonly used substance in this age group, are associated with use of other substances. Determining what specific alcohol cognitions may be associated with use of other substances is important when determining when and on what factors to intervene. Therefore, the aim of this study was to determine whether alcohol-related rcognitions are associated with use of other substances. We hypothesized that current alcohol-related cognitions (willingness, intentions, descriptive and injunctive norms, attitudes, and prototypes) would be associated with lifetime marijuana use, prescription stimulant misuse, opioid use, and ecstasy use in a sample of young adults who are current drinkers. METHODS. A sample of 1,144 participants age 18-20 (mean age = 19.17, SD = .45; 45% male) who reported current alcohol consumption completed a baseline survey that assessed lifetime use of ecstasy (21% ever lifetime use), marijuana (83% ever lifetime use), misuse of prescription stimulants (30% ever lifetime use), and opioids (14% ever lifetime use) as well as alcohol-related cognitions (e.g. willingness, intentions, descriptive and injunctive norms, attitudes, and prototypes). RESULTS. A series of negative binomial regressions controlling for age, sex, and frequency of alcohol use indicate that while all alcohol-related cognitions were associated with marijuana and prescription stimulant misuse (all ps .10). CONCLUSION. Results indicate that alcohol-related cognitions may be differentially associated with different substances. Research is needed to disentangle whether these associations exist because of substance co-use or whether one's alcohol-related cognitions independently predict engagement in other substance use. Understanding which alcohol-related cognitions may place someone at risk for using other substances has implications for both intervention and prevention.

Willing to present orally: No

Financial Support: R01AA021379 (PI: Lewis)

Name of Sponsor (If you are NOT) a CPDD Member: Kristen G. Anderson

Email Address of Sponsor : andersok@reed.edu

Prefix: Dr.

First Name: Dana

Middle Initial: M

Last Name: Litt

Degrees: MA MD Ph.D etc:: PhD

Email: dana.litt@unthsc.edu

Company Affiliation: University of North Texas Health Science Center

Mailing Address: 3500 Camp Bowie Blvd

Address 2: 709E

City: Fort Worth

State: TX

Zip/Postal: 76107

Country: United States

Phone: 3032044109

ID: 122
The moral foundations of needle exchange attitudes

Nina Christie, University of Southern California, ncchrist@usc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Other Drug Category: Injection drugs (primarily opioids)

Topic: Other

Other Topic: Harm Reduction

Abstract: AIM: Evidence suggests that harm reduction programs, including needle exchange services, reduce the spread of blood-borne disease. However, these services often lack public support, in part because of moral misgivings. Psychological research suggests that moral attitudes are grounded in at least five psychologically distinct categories referred to as "moral foundations": 1) Care, 2) Fairness, 3) Loyalty, 4) Authority, and 5) Purity. Understanding the moral basis of needle exchange attitudes can lead to more effective public health messaging. METHODS: A sample of 5,369 participants (67.0% US residence) completed a 7-item questionnaire on needle exchange attitudes (NEA) and also completed the Moral Foundations (MF) questionnaire on YourMorals.org, allowing statistical modeling of the relationship between MF and NEA. RESULTS: The NEA had high internal reliability (Cronbach's alpha = .87) and principle component analysis indicated a single factor accounted for over half of the variance in responses. A regression analysis that included participant characteristics indicated that NEA were most strongly predicted (in the negative direction) by individual level of Purity concerns followed by (in the positive direction) Harm concerns. CONCLUSION: MF provides a framework for understanding moral attitudes towards needle exchange. Of particular interest, moral misgivings about needle exchange are associated with Purity concerns. If this association is causal, it may offer insight into how to build wider support for needle exchange programs.

Willing to present orally: Yes

Financial Support: Data were collected freely on YourMorals.org.

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Leventhal

Prefix: Ms.

First Name: Nina

Middle Initial: C

Last Name: Christie

Degrees: MA MD Ph.D etc:: BA

Email: ncchrist@usc.edu

Company Affiliation: University of Southern California

Mailing Address: 3641 Watt Way

Address 2: HNB B27

City: Los Angeles

State: CA

Zip/Postal: 90089

Country: United States

Phone: (818) 518-3174

ID: 123
Current workforce development priorities for training and technical assistance concerning health services for persons with opioid use disorders

Bryan Hartzler, University of Washington, hartzb@uw.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Other

Other Topic: Workforce development

Abstract: AIM: To complement continuing scientific efforts to design and validate innovative treatment practices for persons with opioid use disorder (OUD), workforce perspectives may identify services of greatest need for combating the opioid epidemic. This presentation will describe results of an online needs assessment survey tapping perspectives of the addiction workforce in Health and Human Services (HHS) Region 10. METHODS: Survey content was iteratively developed by a multidisciplinary team. Eight survey items concern practices specific to persons with OUD, for which importance as a workforce development priority was rated on a five-point Likert scale (1=Not At All, 5=Extremely). A lone inclusion criteria for survey respondents, recruited via the Northwest Addiction Technology Transfer Center (NWATTC) website, was employment as a health professional in an HHS Region 10 state (i.e., AK, ID, OR, WA). RESULTS: Among this addiction workforce sample (N=306), the three practices most highly-rated as workforce development priorities were: 1) treatment of persons with OUD and co-occurring disorders (M = 4.47, SD = .73), 2) treatment and recovery services for pregnant and parenting women with OUD (M = 4.39, SD = .88), and 3) community-based recovery support for OUD (M = 4.32, SD = .85). Notably, least highly-rated as a workforce development priority was the availability of waivered prescribers of opiate agonist medications (M = 3.95, SD = 1.07). A set of generalized linear models confirm this pattern of priorities was robust across respondent demography as well as the four HHS Region 10 states. CONCLUSION: Findings identify targets that addiction workforce members currently see as most important for combating the opioid epidemic. These findings suggest a need for greater focus on special OUD populations, most notably those with co-occurring disorders and pregnant/parenting women, as well as a behavioral health focus on longer-term recovery services. Such findings will inform efforts by the NWATTC and others similarly seeking to address workforce development issues in the addiction field.

Willing to present orally: Yes

Financial Support: SAMHSA 1H79TI080201

Name of Sponsor (If you are NOT) a CPDD Member: Andrew Saxon

Email Address of Sponsor : andrew.saxon@med.va.gov

Prefix: Dr.

First Name: Bryan

Last Name: Hartzler

Degrees: MA MD Ph.D etc:: Ph.D.

Email: hartzb@uw.edu

Company Affiliation: University of Washington

Mailing Address: 1107 NE 45th Street, Suite 120

City: Seattle

State: WA

Zip/Postal: 98105-4631

Country: United States

Phone: 2065438369

ID: 124
Attenuated response to hydromorphone during buprenorphine stabilization associated with injection opioid use and quicker opioid lapse during buprenorphine dose tapering

Tabitha Moses, Wayne State University, tmoses@med.wayne.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Tolerance/Dependence

Abstract: Aim: Several factors are associated with increased likelihood of opioid relapse: longer duration of opioid use, more frequent use, and injection drug use (IDU);1–5 however, we do not know the precise mechanism by which these factors lead to relapse. This study examined whether response to high-dose hydromorphone (HYD) during buprenorphine (BUP) maintenance is modulated by IDU or other heroin-use characteristics. We also explored whether response to HYD may predict lapse during BUP dose tapering. Methods: Substance-use data were collected from non-treatment seeking volunteers (N=55) who were first stabilized as outpatients on 8-mg/day BUP maintenance, then (during inpatient stay) received double-blinded intramuscular HYD 24mg and rated its subjective effects. Participants were discharged and a subset (N=36) underwent a double-blind BUP dose-taper (with opioid abstinence-contingent incentives) over 3 weeks. Results: Lifetime IDU status was associated with more health-related heroin consequences ($t=2.95$, $p = .005$), heroin purchases per week ($t=2.15$, $p = .016$), and percent of total income spent on heroin ($t=3.24$, $p = .004$). IDU history was also associated with higher peak craving ($t=2.46$, $p = .017$), and lower HYD-induced peak effects for total agonist symptoms ($t=2.78$, $p = .008$), VAS good effect ($t=2.24$, $p = .029$), and VAS high ($t=2.82$, $p = .007$). Response to HYD was in turn associated with days to lapse; however, time to lapse was not significantly associated with the heroin-use characteristics above. Individuals reporting less HYD-induced VAS liking, good effect, and high lapsed quicker during the BUP dose taper. A regression model found that HYD liking positively predicted days to lapse ($F(1,32)=14.8$, $p = .001$, $r2 = 30.1\%$). Conclusion: Characteristics of heroin use (e.g. IDU) may decrease sensitivity to BUP (higher craving) and HYD (less liking) resulting in greater sensitivity to BUP dose tapering (quicker opioid lapse). Subjective response to high-dose HYD challenge during moderate-dose BUP maintenance is strongly associated with days to opioid lapse, suggesting that cross-tolerance plays an important role in BUP efficacy.

Willing to present orally: Yes

Financial Support: NIH/NIDA 2 R01 DA015462, Helene Lycaki/Joe Young Sr. Research Funds (State of Michigan), and Detroit Wayne Mental Health Authority.

Prefix: Ms.

First Name: Tabitha

Last Name: Moses

Degrees: MA MD Ph.D etc:: MS

Email: tmoses@med.wayne.edu

CC Email: tabitha.moses@gmail.com

Company Affiliation: Wayne State University

Mailing Address: 15 East Kirby Street

Address 2: Apt 518

City: Detroit

State: MI

Zip/Postal: 48202

Country: United States

Phone: (443) 631-3565

Membership Year: 2017

Sponsor: Dr. Mark Greenwald, PhD

Travel Award: Force Award Winner 2018

Research Interests: Prevention,Psychiatric/Medical Morbidity

ID: 125
PTSD symptom severity and alcohol use in firefighters: The mediating role of anxiety sensitivity

Antoine Lebeaut, University of Houston, amlebeau@central.uh.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Other

Other Topic: Risk factors for alcohol use and alcohol-related motives in first responders

Abstract: Aim: Firefighters are frequently exposed to high-risk, potentially life-threatening events, and as a result, they are vulnerable to developing posttraumatic stress disorder (PTSD) and alcohol use disorder (AUD). The current study aimed to examine the mediating role of anxiety sensitivity (AS; fear of anxiety-related sensations) in the association between PTSD symptomology (PTSS) and alcohol use and motives among a large sample of firefighters. It was hypothesized that heightened PTSS would be indirectly associated with alcohol use and alcohol use coping motives (only) through high AS. Covariates included trauma load (i.e., the number of traumatic events) and years in fire service. Methods: Participants were comprised of firefighters (N = 652; 93.3% male; Mage = 38.7, SD = 8.57) who completed an online questionnaire battery for which they received one continuing education credit and a chance to win raffle prizes. A series of path analyses were conducted using PROCESS v3.1. Results: After accounting for covariates, AS partially mediated the association between PTSS and alcohol use coping motives (indirect effect = .054, 95% CI [.006, .109]), conformity motives (indirect effect = .095, 95% CI [.034, .162]), and social motives (indirect effect = .054, 95% CI [.009, .110]). However, AS did not significantly mediate the relationship between PTSS and enhancement motives (indirect effect = .047, 95% CI [-.003, .105]) or alcohol consumption (indirect effect = .026, 95% CI [-.027, .081]). Conclusion: This is the first study to examine the mediating role of AS in the association between PTSS and bothalcohol use and alcohol use motives among firefighters. Results indicate that AS reduction techniques may be effective in PTSD/AUD interventions for firefighters.

Willing to present orally: Yes

Financial Support: None.

Name of Sponsor (If you are NOT) a CPDD Member: Anka Vujanovic

Email Address of Sponsor : aavujano@central.uh.edu

Prefix: Mr.

First Name: Antoine

Last Name: Lebeaut

Degrees: MA MD Ph.D etc:: BA

Email: amlebeau@central.uh.edu

Company Affiliation: University of Houston

Mailing Address: 3695 Cullen Boulevard

City: Houston

State: TX

Zip/Postal: 77204

Country: United States

Phone: 2019192014

ID: 126
Psychosocial treatment reduces cost of crime among homeless veterans with substance use disorders

Elizabeth Santa Ana, Ralph H. Johnson VA Medical Center and Medical University of South Carolina, santaana@musc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Treatment

Abstract: Aim: Few studies have evaluated societal cost of crime before and after psychosocial treatment for substance use disorder (SUD) and in comparison to the cost of treatment, an area that is essential for providing evidence of broader returns on treatment investment for SUD. We evaluated whether psychosocial treatment, consisting of group motivational interviewing (GMI) and living skills for enhancing housing stability (LSEG), reduced the cost of crime to society pre-and-post intervention among homeless Veterans with SUD. We next evaluated cost of treatment to provide evidence of treatment return. Methods: Dually diagnosed homeless Veterans (n = 184) were randomized to GMI or LSEG. Patients attended four 90-minute sessions of GMI or LSEG across 4 days. Four participants (2.2%) of the overall sample reported having been involved in the legal system due to having committed a crime (murder, property theft, fraud, disorderly conduct, larceny, property trespassing, DUI, non-violent domestic offense) at baseline. Data analyses used estimates of the societal cost of crime and associated jail time from a previous study (McCollister et al. 2017). Individual crimes were classified based on prevailing methods. Mean cost of crime and jail time were estimated for baseline and at 3-month follow up, followed by evaluation of treatment cost. Results: All crimes were committed while Veterans were in unstable housing. Total cost of crime at baseline was $10.6 million, or $57,655 per Veteran; while total cost of crime and jail at 3 Month follow-up was $17,831; or $97 per Veteran. Estimated difference representing mean crime reduction benefit associated with GMI/LSEG totaled $57,559 per Veteran. Average cost of treatment was $334.87 per Veteran, or a total of $61,616, representing a 171.9% return on treatment investment per Veteran. Conclusions: Participants who received GMI and LSEG evidenced a 99.8% reduction in cost of crime. Our study is limited by a small sample.

Willing to present orally: Yes

Financial Support: Supported by VA HSR&D project ID IIR 13-317-2

Prefix: Dr.

First Name: Elizabeth

Middle Initial: J.

Last Name: Santa Ana

Degrees: MA MD Ph.D etc:: Ph.D

Email: santaana@musc.edu

Company Affiliation: Ralph H. Johnson VA Medical Center and Medical University of South

Carolina

Contact Title: Associate Professor

Mailing Address: 109 Bee Street

City: Charleston

State: SC

Zip/Postal: 29401

Country: United States

Phone: (843)789-7168

Membership Year: 2007

Sponsor: Kathleen Carroll

Research Interests: Behavioral Pharmacology Treatment Medicinal Chemistry Toxicology/Teratology

ID: 127
Culturally-relevant correlates of polysubstance use among frequent marijuana users: An examination of African American incarcerated men

Paris Wheeler, University of Kentucky, paris.wheeler@uky.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Epidemiology

Abstract: AIM: African Americans may be more likely to use marijuana concurrently with other substances (Banks Rowe, Mpofu, & Zapolski, 2017). Polysubstance use is associated with poorer health outcomes (Connor, Gullo, White, & Kelly, 2014), but there is limited research on the risk factors for polysubstance use among African American marijuana users. Because of the prevalence of pre-incarceration marijuana use among African American incarcerated men (Valera, Epperson, Daniels, Ramaswamy, & Freudenberg, 2009), the current study aimed to examine culturally-relevant correlates of polysubstance use among a sample of marijuana users in order to inform interventions among this group. METHODS: The sample consisted of 101 African American incarcerated men nearing community reentry who reported using marijuana 5 or more days per week on average (M age=32.46). Bivariate logistic regression analysis explored how John Henryism Active Coping (JHAC; M = 49.58, SD = 6.45, α = .79), lifetime psychiatric status (M = 2.27, SD = 2.29, α = .82), and family social support (M = 5.58, SD = 1.65, α = .94) contributed to the likelihood of using multiple substances in one day in the 30 days before incarceration (1=at least one day of polysubstance use; 0=no polysubstance use). RESULTS: A one unit increase in JHAC was associated with a 9% decrease in likelihood of engaging in polysubstance use (OR = .91, pCONCLUSION: These results are consistent with previous research showing JHAC is associated with better substance use outcomes among African Americans (Fernander, Patten, Schroeder, Stevens, Eberman, & Hurt, 2005; Stevens-Watkins et al., 2016). Incorporating this culturally-relevant component into concurrent mental health and drug treatment programs could improve drug use outcomes among incarcerated African American men upon community reentry.

Willing to present orally: Yes

Financial Support: NIDA K08-DA032296, PI: Stevens-Watkins; UL1-TR001998, PI: Clinical and Translational Science Awards (CTSA); NIDA T32-DA035200, PI: Rush

Name of Sponsor (If you are NOT) a CPDD Member: Danelle Stevens-Watkins, Ph.D.

Email Address of Sponsor : d.stevenswatkins@uky.edu

Prefix: Ms.

First Name: Paris

Middle Initial: B

Last Name: Wheeler

Degrees: MA MD Ph.D etc:: MS

Email: paris.wheeler@uky.edu

Company Affiliation: University of Kentucky

Mailing Address: 2865 Middlesex Way

City: Lexington

State: KY

Zip/Postal: 40503

Country: United States

Phone: 2392474664

ID: 128
Circadian subjective and pharmacological effects of ad libitum electronic and combustible cigarette use among dual users

Arit Harvanko, University of California, San Francisco, arit.h@uky.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Other

Other Topic: Clinical Pharmacology

Abstract: Aim: Dual use of electronic cigarettes (EC) and combustible cigarettes (CC) may function as a tool for reducing the harm of CC use but might also sustain cigarette smoking. Although most adult EC users report using ECs for smoking cessation, the majority continue to use CCs and ECs simultaneously, suggesting ECs do not entirely substitute for CCs. To gain insight into the phenomenon of dual use, pharmacological and subjective effects of CCs and ECs were examined among dual-users in a laboratory study. Methods: Thirty-six dual users each completed two 48 h laboratory sessions with ad-libitum use of their own EC or CC. Withdrawal symptoms and smoking effects were examined over the entire 48 h, while plasma cotinine and nicotine levels were sampled during the first 24 h. Results: On average, systemic exposure to nicotine was significantly less for ECs (70%) compared to TCs ($F[1,35]=6.58$, $p=.015$), though temporal patterns were similar. Among EC device types, refillable tank devices with adjustable voltage were associated with significantly higher circadian nicotine levels compared to cig-a-like and non-variable voltage type ECs. Compared to CCs, ECs were associated with significantly smaller reductions in cigarette craving, and less psychological reward (as measured by the Cigarette Evaluation Questionnaire). Among device types, cig-a-like type ECs were associated with the lowest psychological reward, which was significantly less than CCs ($t[1,64]=2.63$, $p = .011$). Conclusions: These are the first data to show that in dual users of EC and CC circadian plasma nicotine levels, and self-reported psychological reward and craving reduction, are generally lower for ECs compared to CCs, particularly for cig-a-like type devices.

Willing to present orally: Yes

Financial Support: Research reported in this abstract was supported by the National Cancer Institute of the National Institutes of Health under Award Number T32CA113710. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Prefix: Dr.

First Name: Arit

Middle Initial: M

Last Name: Harvanko

Degrees: MA MD Ph.D etc:: Ph.D

Email: arit.h@uky.edu

CC Email: arit.harvanko@ucsf.edu

Company Affiliation: University of California, San Francisco

Mailing Address: Center for Tobacco Control Research and Education, 530 Parnassus Avenue

Address 2: Suite 366 Library

City: San Francisco

State: CA

Zip/Postal: 94143-1390

Country: United States

Phone: 415-476-3652

Membership Year: 2013

Sponsor: Dr. Thomas Kelly

Research Interests: Prevention Behavioral Pharmacology

ID: 129
Past 30 day oral and non-oral prescription stimulant use and associated risk factors among youth aged 10-18 years old

Yiyang Liu, University of Florida, yliu26@ufl.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Epidemiology

Abstract: Aims: To identify patterns of prescription stimulant non-oral use among youth and factors and consequences associated with non-oral use. Methods: Data was analyzed from the National Monitoring of Adolescent Prescription Stimulants Study (N-MAPSS). N-MAPSS recruited 11,048 youths, 10-18 years old, across 10 US cities from 2008-2011. Routes of stimulant administration were reported by past 30-day users (n=723). Users were categorized as oral medical users (oral-use only, no diversion, and not using more than prescribed, n=330), oral non-medical users (oral-use only but with diversion or using more than prescribed, n=270), and non-oral users (any non-oral use with or without diversion and with or without using more than prescribed, n=123). The association between the patterns of stimulant use with source of stimulants, signs of stimulant use disorder and other mental health conditions, other substance use, and reasons for use were examined using logistic regressions controlling for demographics. Results: Approximately 17% (123) of past-30-day stimulant users reported non-oral use, 79 of whom reported using stimulants by both oral and intranasal routes. This was the most prevalent pattern of use that involved non-oral administration of stimulants. Among non-oral users, the most common source for acquiring stimulants was from someone at school (63.4%); the most common reason to use was to get high (74.4%). Non-oral users and oral non-medical users were more likely to report stimulant tolerance, depression, and use illicit substances compared to oral medical users. Negative consequences including needing stimulants to feel ok, having trouble with teachers/bosses and friends due to stimulant use, and reporting anxiety were statistically associated with non-oral use. Conclusions: Preventing snorting should be the focus of stimulant non-oral use interventions. Non-oral use of prescription stimulants was associated with additional risks of adverse mental health outcomes compared to other forms of non-medical use, including diversion and using more than prescribed.

Willing to present orally: Yes

Financial Support: Financial Support: The N-MAPSS study was implemented by Washington University in St Louis and University of Florida under contract from Pinney Associates, Inc., with funding provided by Shire Development LLC and Noven Therapeutics. The funding sources had no role in the study design, in the collection, analysis or interpretation of data, in the writing of the abstract, or in the decision to submit the abstract for presentations.

Name of Sponsor (If you are NOT) a CPDD Member: Linda Cottler

Email Address of Sponsor : lbcottler@ufl.edu

Prefix: Ms.

First Name: Yiyang

Last Name: Liu

Degrees: MA MD Ph.D etc:: MPH

Email: yliu26@ufl.edu

Company Affiliation: University of Florida

Mailing Address: 2004 Mowry Road

City: Gainesville

State: FL

Zip/Postal: 32610

Country: United States

Phone: 5043887415

ID: 130
Feasibility and acceptability of a m-health APP to assess daily substance use and firearm behaviors among an urban emergency department sample

Patrick Carter, University of Michigan, cartpatr@med.umich.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Prevention

Abstract: AIM: Firearms are the second leading cause of death for US youth/emerging adults (EAs). Intensive longitudinal daily data (ILDD) can help elucidate causal relationships between proximal substance use, cognitive factors (e.g., mood), and risky firearm behaviors (RFBs), which in turn can inform m-health intervention development. We describe feasibility/acceptability of an ILDD survey collecting such data via smartphone APP. METHODS: Youth/EAs (age 16-29) screening positive for substance (alcohol-or-drug) misuse and firearm possession were enrolled in an ILDD trial; 31-items were collected daily for 30-days and a 3-month follow-up was completed. RESULTS: Among eligible participants, 88% (n=58) enrolled in the ILDD trial, with 82% completing follow-ups. Participants (M-Age=24; 43%-male; 67%-Black; 57%-public assistance) fully or partially completed an average of 19.6-days of surveys (65.3%-completion rate). Once started, 96% fully completed the survey; Average fully completed days=18.8-days; 63% completion rate). Among participants completing ≥1 survey day, average completion was 20.6-days (69%-completion rate). With the exception of higher completion among in-school participants (M-day 25-vs.-17; $p < 0$ .05), completion rates did not differ by baseline socio-demographic, substance use, or firearm variables. Regarding usability, 92% of participants reported at the 3-month follow-up that the APP was easy-to-use and 84% indicated surveys took < 1 0-min. Preferred time-of-day for survey completion varied, with 40% indicating that mornings were optimal. The most common barrier to completion was lack-of-time/forgetfulness. Regarding acceptability, 92% were very/somewhat comfortable answering sensitive substance use/firearm questions. Few participants expressed privacy/confidentiality concerns, with 80% indicating they were able to keep answers private and none experiencing police/legal issues related to study involvement. The majority (82%) indicated they were willing to participate in another similar study. CONCLUSION: High study enrollment/acceptability rates suggest that smartphone APPs are a feasible and acceptable method for collecting ILDD on substance use and firearm behaviors among high-risk youth/EAs. Findings have implications for the development of m-health interventions addressing substance use and RFBs.

Willing to present orally: Yes

Financial Support: NIH/NIDA K23DA039341

Name of Sponsor (If you are NOT) a CPDD Member: Maureen Walton

Email Address of Sponsor : waltonma@umich.edu

Prefix: Dr.

First Name: Patrick

Last Name: Carter

Degrees: MA MD Ph.D etc:: M.D.

Email: cartpatr@med.umich.edu

CC Email: cartpatr@med.umich.edu

Company Affiliation: University of Michigan

Contact Title: Assistant Professor

Mailing Address: 1608 Charlton Street

City: Ann Arbor

State: MI

Zip/Postal: 48103

Country: United States

Phone: 781-820-1881

ID: 131
Prospective assessment of potentially abuse-related events in two Phase 3 studies of NKTR-181, a novel opioid analgesic, using the Misuse, Abuse, and Diversion Drug Event Reporting System (MADDERS)

Mark Phillips, Phillips Gilmore Oncology Communications, mvphillips@phillipsgilmore.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Other

Other Topic: Assessment of abuse potential and opioid withdrawal in clinical trial

Abstract: Aim: NKTR-181 is a novel opioid analgesic that exhibits a slower rate of entry into the central nervous system relative to other mu agonists. Human abuse potential (HAP) and preclinical studies suggest NKTR-181 may have less abuse potential than conventional opioids. The MADDERS® System, a prospective, standardized system for assessing abuse potential in clinical trials, was implemented in two large Phase 3 trials of NKTR-181 to further assess its abuse potential. Methods: SUMMIT-07 was an enriched enrollment randomized withdrawal design study that examined the safety and efficacy of NKTR-181 across 12 weeks in opioid-naïve subjects with chronic low back pain. SUMMIT-08 was a 52-week, open-label, long-term safety study in opioid-naïve and -experienced subjects with chronic low back pain or noncancer pain. The MADDERS® System records potentially abuse-related "events" defined as adverse events of interest and drug accountability discrepancies. Each event was assigned a primary classification and supplementary classification(s) by a blinded, independent committee of substance abuse experts (adjudicators). A survey was administered by study staff at the final visit to identify overlooked events of interest. Results: Seventy-nine (6.6%) of 1,189 subjects reported 86 events in SUMMIT-07 and 51 (8.0%) of 638 subjects reported 59 events in SUMMIT-08. Across both studies, most events were attributed to "Withdrawal," "Therapeutic Error" (mistake in a therapeutic regimen), "Misuse" (intentional overuse of study medication for a therapeutic purpose), or "Unknown." Five subjects (3 NKTR-181, 2 placebo) had events classified as possible "Abuse" in SUMMIT-07 and 4 subjects (all NKTR-181) had events classified as possible "Abuse" in SUMMIT-08. Conclusion: The MADDERS® System discerned few abuse-related events and low rates of withdrawal in both trials. MADDERS® results from the NKTR-181 Phase 3 program support those from the HAP and preclinical studies suggesting NKTR-181 may have a lower abuse potential relative to conventional opioids.

Willing to present orally: Yes

Financial Support: Nektar Therapeutics, San Francisco, CA

Name of Sponsor (If you are NOT) a CPDD Member: Ryan K. Lanier

Email Address of Sponsor : rlanier@analgesicsolutions.com

Prefix: Dr.

First Name: Mark

Last Name: Phillips

Degrees: MA MD Ph.D etc:: PharmD, MBA

Email: mvphillips@phillipsgilmore.com

Company Affiliation: Phillips Gilmore Oncology Communications

Mailing Address: 799 Waldens Pond Rd

City: Albany

State: NY

Zip/Postal: 12203

Country: United States

Phone: 3157296761

ID: 132
Pregabalin misuse: Identifying acute harms and misuse trends in Victoria, Australia through analysis of ambulance attendance data

Rose Crossin, Monash University and Turning Point, rose.crossin@monash.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Sedative-Hypnotics

Topic: Epidemiology

Abstract: Aims: Pregabalin prescribing in Australia is increasing, and may be used as a means of opioid-sparing. Worldwide, pregabalin misuse is increasing, and has been associated with serious harms and mortality, particularly when used with other sedatives. Despite this, Australian-specific data on pregabalin misuse is limited. This study aimed to quantify acute harms associated with pregabalin misuse, including assessment of co-occurring sedative use, and identify the populations experiencing those harms. Methods: This study was a retrospective analysis of 1,201 ambulance attendances (Victoria, Australia, January 2012 to December 2017), where pregabalin misuse significantly contributed to that attendance. Six-monthly rate of pregabalin-related ambulance attendances was correlated against Australian prescription data. Attendance characteristics were analysed, including; age, gender, historical psychiatric risk factors, concurrent use of other sedatives, concurrent self-harm, and consciousness level. Results: The six-monthly rate of pregabalin-related ambulance attendances in Victoria increased more than 1,000% over the study period. 49% of pregabalin-related attendances were for individuals with a history of psychiatric risk factors that may contra-indicate pregabalin use. 68% of pregabalin-related attendances also involved co-occurring other sedative use (commonly benzodiazepines). 40% of pregabalin-related attendances occurred within the context of a suicide attempt. Those who misused pregabalin with other sedatives had significantly greater impairments to consciousness, but no significant difference in the prevalence of co-occurring self-harm. Conclusions: Rates of ambulance attendance in Victoria related to pregabalin misuse have dramatically increased. Clinicians should prescribe pregabalin with caution to individuals with a history of psychiatric risk factors, and should ensure patients are aware of interaction risks with other sedatives. Australia should consider limited dispensing or real time prescription monitoring to minimise harms associated with pregabalin misuse. This study highlights the benefits of ambulance attendance data as a population level measure of harms from pharmaceutical misuse.

Willing to present orally: Yes

Financial Support: Intend to apply for CPDD Early Career Investigator travel award

Name of Sponsor (If you are NOT) a CPDD Member: A/Professor Suzanne Nielsen

Email Address of Sponsor : suzanne.nielsen@monash.edu

Prefix: Dr.

First Name: Rose

Last Name: Crossin

Degrees: MA MD Ph.D etc:: PhD

Email: rose.crossin@monash.edu

CC Email: RoseC@turningpoint.org.au

Company Affiliation: Monash University and Turning Point

Mailing Address: 110 Church St

Address 2: Richmond

City: Melbourne

State: VI

Zip/Postal: 3121

Country: Australia

Phone: +61 3 8416 8461

ID: 133
Opioid use disorder and risk of homelessness nationally in the Veterans Health Administration

Ajay Manhapra, Yale University School of Medicine, ajay.manhapra@yale.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: Background: Overdose deaths, mostly due to opioids, have replaced HIV as the leading reported cause of death among people who are homeless. Few studies have explored the complex relationship between opioid use disorder (OUD) and homelessness. Methods: All veterans who received care from Veterans Health Administration (VHA) facilities during Fiscal Year 2012 (5,449,614) were classified into 4 mutually exclusive groups based on ICD-9 diagnoses: 1) OUD (99,359 [1.82%]), 2) other substance use disorders (SUD- 367,345 [6.74%]), 3) non-SUD psychiatric disorders (1,554,045 [28.52%]), and 4) No SUD/psychiatric disorders (3,428,865 [62.92%]), and compared on the prevalence of homelessness, and sociodemographic and clinical factors. Variables identified through this procedure were entered into a series of logistic regression models with homelessness as the dependent variable, and c-statistics was used to evaluate the improved model fit as additional variables were included. Results: The prevalence of homelessness among those with OUD (34.6%) was twice that among veterans with other SUDs (15.5%) and 10-30 times higher compared to veterans with non-SUD psychiatric disorders (3.6%) and no SUD/psychiatric disorders (1.3%). OUD was associated with 17.5 higher unadjusted odds of homelessness (OR 17.5, 95% CI:17.26-17.75; C-statistics 0.58) compared to no OUD. With the serial addition of sociodemographic factors to the model (black race, mean income and age), followed by SUD diagnoses and then medical & psychiatric diagnoses, the adjusted odds of the association of homelessness with OUD decreased to 11.15 (95% CI 10.98-11.33; c-statistics 0.81), 3.92 (95% CI 3.84-3.99; c-statistics 0.85), and 3.09 (95% CI: 3.03-3.14; c-statistics 0.86) respectively. The independent odds of homelessness associated with other SUD diagnoses were comparable to OUD. Conclusions: OUD is associated with markedly higher risk of homelessness among VHA patients, and the excess risk appears to be largely mediated by sociodemographic factors, and to a lesser extent by polysubstance use and psychiatric diagnoses.

Willing to present orally: Yes

Financial Support: VA New England MIRECC

Prefix: Dr.

First Name: Ajay

Last Name: Manhapra

Degrees: MA MD Ph.D etc:: M.D.

Email: ajay.manhapra@yale.edu

CC Email: ajmanhapra@yahoo.com

Company Affiliation: Yale University School of Medicine

Mailing Address: 9652 27th Bay Street

City: Norfolk

State: VA

Zip/Postal: 23518

Country: United States

Phone: 2312884848

Membership Year: 2015

Sponsor: Dr. David Fiellin, Ph.D.

ID: 134
Psychiatric burden of prisoners suffering from opioid use disorder and ADHD

Marisa Silbernagl, Medical University of Vienna, Center for Public Health, marisa.silbernagl@meduniwien.ac.at

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Other

Other Topic: Comorbidity, prison populations

Abstract: AIM: Attention-deficit hyperactivity disorder (ADHD) is linked to other psychiatric diseases, in particular to substance use disorders (SUDs), and criminal behavior. Adequate medical treatment of ADHD has beneficial influences on forensic outcomes and substance use. Still, treatment of ADHD in forensic samples is underrepresented and often not implemented due to comorbid SUDs. Study aim was to investigate psychiatric comorbidities, prescription practice and history of substance use in a high-risk sample: prisoners suffering from opioid use disorder (OUD) and ADHD. METHODS: Cross-sectional interviewer administered investigation in inmates suffering from OUD, currently enrolled in opioid maintenance treatment (OMT) in Austrian prisons. Application of standardized assessment of ADHD, psychiatric comorbidities, and substance use. Medical data were retrieved from inmates' files. RESULTS: Of 133 inmates in OMT (mean age 35.7 years; 21.8% female) the majority received methadone (41.4%; mean dose 44.8mg/d), followed by levomethadone (25.6%; 15.0mg/d), SROM (18%; 656.7mg/d) and Buprenorphine (15%; 6.3mg/d). Among all participants 49% reported symptoms of childhood ADHD and 17% screened positive for current ADHD. Psychiatric disorders were highly prevalent among the total sample, with 58.6% suffering from at least one AXIS I disorder. Prevalence of AXIS I comorbidities was even higher for participants with ADHD (86.4%), with 50% suffering from current major depression and suicidal risk. Although prescription rate of benzodiazepines was high (85%), only a limited number of inmates received medication for ADHD (3.1%). Inmates with ADHD were significantly younger at onset of drug use, reported more drug overdoses and hospital admissions (all $p < .05$). CONCLUSIONS: The heightened risk of psychiatric comorbidities in imprisoned OUD patients is further increased with a comorbid diagnosis of ADHD. Routine screening for ADHD and other psychiatric comorbidities in inmates with SUDs should be implemented. Moreover, SUDs or current imprisoned should not be an exclusion criterion for integrated medical treatment of ADHD.

Willing to present orally: Yes

Financial Support: None

Prefix: Ms.

First Name: Marisa

Last Name: Silbernagl

Degrees: MA MD Ph.D etc:: MSc

Email: marisa.silbernagl@meduniwien.ac.at

Company Affiliation: Medical University of Vienna, Center for Public Health

Mailing Address: Kinderspitalgasse 15

City: Vienna

State: Austria

Zip/Postal: 1090

Country: Austria

Phone: +43 1 40400 35000

ID: 135
From network medicine: Construction and analysis of protein–protein interaction network of alcohol use disorder

Shaw-Ji Chen, Mackay Memorial Hospital, Taitung Branch, Mackay Medical College, shawjichen@hotmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: GeneArray/Proteomics

Abstract: AIM Alcohol Use Disorder (AUD) is a complex disease resulting from interactions among genetic and other factors (e.g., environmental factors). The mechanism of AUD development remains unknown. METHODS Newly developed network medicine tools provide a platform for exploring complex diseases at the system level. This study proposes that protein–protein interactions (PPIs), particularly those among proteins encoded by casual or susceptibility genes, are extremely crucial for AUD development. RESULTS Our PPI giant network comprised 187 nodes, with 770 edges, in addition to containing 27 proteins with high betweenness centrality (BC) or connectivity degree (k), which were identified as the backbone network. CONCLUSION GNAI family incluuding GNAI1 and GNAI3 with both large degree and high BC in the giant PPI network were reported in the KEGG pathway of alcoholism. Moreover, AGT, APP, and CHRM2 with both large degress and high BC in the PPIs are not found previously. We will report more comprehesive data in the CPDD. Keywords: Alcohol use disorder (AUD), Network, Protein-protein interaction .

Willing to present orally: Yes

Financial Support: NIL

Name of Sponsor (If you are NOT) a CPDD Member: Lian-Yu Chen

Email Address of Sponsor : Lianyu0928@gmail.com

Prefix: Dr.

First Name: Shaw-Ji

Last Name: Chen

Degrees: MA MD Ph.D etc:: MD.Ph.D

Email: shawjichen@hotmail.com

CC Email: shawjichen@hotmail.com

Company Affiliation: Mackay Memorial Hospital, Taitung Branch, Mackay Medical College

Mailing Address: 1, Lane 303, Changsha Street, Taitung, Taiwan

City: Taitung Taiwan

State: NP

Zip/Postal: 950

Country: Taiwan

Phone: +886933996311

ID: 136
Applying multiple indicator, multiple cause models to understand changes in youth externalizing behaviors

Jacob Borodovsky, Washington University School of Medicine In St. Louis, jacob.t.borodovsky.gr@dartmouth.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Adolescent

Abstract: AIM: The prevalence of substance use, violent behaviors, and sexual activity among youth have all declined over the past two decades. This study examined whether these declines represent separate, domain-specific trends, or a single trend of a declining propensity to engage in externalizing behaviors. METHODS: Youth Risk Behavior Survey data (1999-2017) limited to age 16-18 were combined (N= 98,964). Binary survey items assessed substance use (e.g., alcohol), violent (e.g., fighting), and sexual (e.g., number of partners) behaviors. Factor structure was examined using polychoric correlation and principal components extraction. The alignment method implemented in the MPlus statistical software package was used to identify item non-invariance over time. Alignment results informed the Multiple Indicator, Multiple Cause model used to investigate mean factor score over time. RESULTS: Items loaded on a single factor (loading range: 0.58-0.83) which explained 56% of the variance (eigenvalue: 3.91). Item discrimination (i.e., loading) remained constant over time. However, item severity non-invariance was observed for cigarettes, cannabis, fighting, and number of partners. Notably, in 1999, cannabis use indicated higher severity of externalizing behavior relative to cigarette use, whereas, by 2017, the opposite was true. Finally, there was a large decline in externalizing behavior: mean factor score fell from 0.172 (SE: 0.052) in 1999 to -0.378 (SE: 0.058) in 2017. CONCLUSION: Results suggest a notable decline (approx. half standard deviation from 1999-2017) among American youth in an underlying propensity towards externalizing behaviors. This decline manifested as observed declines in the prevalence of substance use, violence, and sexual behaviors. Behavior-specific changes also occurred, but the majority of variance is explained by trends in the externalizing factor. These findings highlight the need to consider an underlying construct – one that includes not just substance use and delinquency, but also sexual behavior – when attempting to explain behavioral trend declines.

Willing to present orally: Yes

Financial Support: R21AA025689

Prefix: Dr.

First Name: Jacob

Middle Initial: T

Last Name: Borodovsky

Degrees: MA MD Ph.D etc:: PhD

Email: jacob.t.borodovsky.gr@dartmouth.edu

CC Email: jacob.borodovsky@gmail.com

Company Affiliation: Washington University School of Medicine In St. Louis

Mailing Address: 18 South Kingshighway

Address 2: Apt 5C

City: St. Louis

State: MO

Zip/Postal: 63108

Country: United States

Phone: 9142740506

Membership Year: 2014

Sponsor: Dr. Alan Budney, Ph.D.

Date of Membership: confirmed, post-doc postion 7/16/18

ID: 137
Anxiety sensitivity and smoking among Spanish-speaking Latinx adult smokers: The explanatory role of anxiety and depression

Justin Shepherd, University of Houston, jmsheph4@central.uh.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Dependence

Abstract: AIM: The Latinx population is a recognized health disparities group for tobacco use. There is little understanding of affect-based mechanisms related to smoking among this group despite some research suggesting this population is differentially exposed to, and at risk, for anxiety/depression. Anxiety sensitivity is an individual difference factor for anxiety/depression and initial work suggests it is related to affect-based smoking processes among Latinx smokers. The present investigation examined the explanatory role of anxiety and depression in the relations between anxiety sensitivity and cigarette dependence, perceived barriers for smoking cessation, and severity of symptoms during past quit attempts among Latinx smokers. METHODS: Participants were 363 Spanish-speaking Latinx daily smokers (58.7% female, Mage = 33.3 years, SD = 9.81). Participants completed measures, including the Hospital Anxiety and Depression Scale, Anxiety Sensitivity Index-3, Fagerström Test for Cigarette Dependence, Barriers to Cessation Scale, and Smoking History Questionnaire. Multiple mediation analyses were conducted and all models adjusted for sex, income, education, number of medical conditions, and alcohol and drug use. RESULTS: There was not a significant indirect effect of anxiety sensitivity through anxiety and depression on cigarette dependence. The indirect effect of anxiety sensitivity via only depression was significant for perceived barriers for smoking cessation (b = 0.02, SE=0.01, 95% CI [0.001, 0.043], cse = 0.03). There was also a significant indirect effect of anxiety sensitivity through anxiety, but not depression, on severity of symptoms during past attempts (b = 0.06, SE=0.02, 95% CI [0.02, 0.10], cse =0.07). CONCLUSION: The current results suggest that among Latinx smokers, anxiety sensitivity is associated with perceived barriers for smoking cessation indirectly though depression and severity of symptoms during past quit attempts through anxiety. However, no affect-based mechanism was evident for cigarette dependence. The current results provide initial empirical evidence for anxiety and depression for certain clinically-relevant smoking processes.

Willing to present orally: Yes

Financial Support: This research was unfunded.

Name of Sponsor (If you are NOT) a CPDD Member: Anka Vujanovic

Email Address of Sponsor : aavujano@Central.UH.EDU

Prefix: Mr.

First Name: Justin

Middle Initial: M

Last Name: Shepherd

Degrees: MA MD Ph.D etc:: MS

Email: jmsheph4@central.uh.edu

CC Email: justin.shepherd@outlook.com

Company Affiliation: University of Houston

Mailing Address: 8700 Main Street

Address 2: Apt 2509

City: Houston

State: TX

Zip/Postal: 77025

Country: United States

Phone: 9785786023

Biography: Justin is a first year graduate student in the clinical psychology program at the University of Houston. He graduated from the University of Massachusetts in 2013 with a B.A. in Psychology and from Rivier University in 2015 with a M.S. in Clinical Psychology. Justin then worked as a clinical research assistant in the Behavioral Psychopharmacology Research Lab at McLean Hospital with Dr. Scott Lukas. He is particularly interested in transdiagnostic factors (e.g. anxiety sensitivity) and their role in the maintenance of alcohol and nicotine use. Justin is also interested in brief interventions that target transdiagnostic mechanisms for co-occurring affective symptoms and alcohol and nicotine use.

ID: 138
Substance use as a predictor of HIV testing among emergency department patients who initially decline testing offered by hospital staff

Ian Aronson, Digital Health Empowerment, ian@dhempowerment.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Technology Issues

Abstract: AIM To address undiagnosed HIV, federal guidelines recommend routine HIV testing in emergency departments (EDs). However, ED patients decline HIV tests far more frequently than they accept. The current study examines how participant characteristics (substance use / demographic similarity to people in an intervention video) contribute to decisions to accept HIV testing after completing a brief tablet-based intervention. We hypothesize that people who reported substance use would be more likely to test, even if they do not share the race and gender of people in an intervention video. METHODS Data from three separate trials in a high volume NYC ED were merged to determine whether patients (N=560; 69% female; 54% Black; 38% aged 18 – 24 years) who initially declined HIV tests offered by hospital staff were more likely to test post-intervention if: 1) they shared the gender or race of people onscreen; or 2) they reported problem substance use (e.g., trying to stop using a substance but failing). All three studies: administered an automated substance use screening based on the WHO ASSIST; presented video on the importance of HIV testing; then offered an HIV test by computer. RESULTS Chi-Square and logistic regression analyses indicated demographic concordance with people onscreen did not increase likelihood of accepting an HIV test. However, participants who reported problem substance use (n = 231) were significantly more likely to test for HIV compared to those who did not (OR=1.55; $x2 = 5.80$, $p < .05$). Specifically, 38.1% of patients who reported problem substance tested for HIV post-intervention, while 28.3% of those who did not report problem substance use tested. CONCLUSION Results suggest other factors influence decisions to test for HIV more than shared demographics between participants and people depicted in an intervention video. Future research may explore how adapting intervention materials to behavioral characteristics may increase testing.

Willing to present orally: Yes

Financial Support: R42 HD088325 P30 DA029926 P30 DA011041

Name of Sponsor (If you are NOT) a CPDD Member: Andrew Roseblum

Email Address of Sponsor : Rosenblum@ndri.org

Prefix: Dr.

First Name: Ian

Middle Initial: D

Last Name: Aronson

Degrees: MA MD Ph.D etc:: Ph.D.

Email: ian@dhempowerment.com

Company Affiliation: Digital Health Empowerment

Mailing Address: 420 12th Street

City: Brooklyn

State: NY

Zip/Postal: 11215

Country: United States

Phone: (917) 727-6251

ID: 139
Caudate reactivity to smoking cues is associated with increased response bias to monetary rewards

Elena Molokotos, McLean Hospital & Suffolk University, emolokotos@mclean.harvard.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Imaging

Abstract: AIM Chronic use of abused substances enhances reactivity to drug-associated stimuli and blunts responsivity to non-drug reinforcers. Whether there is a direct link between these two processes in nicotine dependence remains unclear. While tobacco smokers typically show enhanced reactivity to smoking cues in reward-related striatal regions (e.g. caudate and nucleus accumbens; NAc), sated smokers have not shown a reduction in reward responsivity to monetary rewards as measured by a probabilistic reward task (PRT). However, the PRT has revealed deficient reward processing in abstinent smokers with a history of depression, suggesting this task displays variance in reward function within smokers. Here, we directly tested whether there is an association between reward responsivity and striatal reactivity to drug cues. METHODS Twenty-four (14 female) nicotine-dependent smokers (FTND: M=5.95, SD = 1.20) with an average age of 27.63 years (SD = 6.05) were enrolled. Smoking status was confirmed by an average expired air carbon monoxide of 22.99 ppm (SD = 12.34). Participants completed a functional magnetic resonance imaging cue-reactivity paradigm followed by an offline computerized probabilistic reward task (PRT) to evaluate responsivity to monetary rewards. To assess the relationship between cue-reactivity and reward responsivity, smoking versus neutral beta weights were extracted from the caudate and NAc and correlated with the rise in response bias from block 1-2 on the PRT (ΔRB). RESULTS Smokers with relatively greater caudate reactivity to smoking cues were found to have increased ΔRB ($r = 0.43$, $p = .037$). No significant correlation was observed with NAc activation to smoking cues. CONCLUSION This finding shows a link between reward responsivity and smoking cue reactivity in the caudate, a region that maintains conditioned behavioral responding toward reward predictive stimuli. While participants in this study were sated, it is plausible that the association may change during abstinence given nicotine's acute influence on reward function.

Willing to present orally: No

Financial Support: This research was supported by National Institute on Drug Abuse grants K01DA029645 and K02DA042987

Name of Sponsor (If you are NOT) a CPDD Member: Amy Janes, PhD

Email Address of Sponsor : ajanes@mclean.harvard.edu

Prefix: Ms.

First Name: Elena

Last Name: Molokotos

Degrees: MA MD Ph.D etc:: MA, MS

Email: emolokotos@mclean.harvard.edu

Company Affiliation: McLean Hospital & Suffolk University

Mailing Address: 261 Beacon St.

Address 2: Apt 41

City: Boston

State: MA

Zip/Postal: 02116

Country: United States

Phone: 2032570747

ID: 140
Women-reported barriers and facilitators of adherence to medications for opioid use disorder

Alice Fiddian-Green, UMass Amherst School of Public Health and Health Sciences, afiddian-green@schoolph.umass.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Sex Differences

Abstract: AIM: Opioid use disorder (OUD) is largely viewed by health experts as a chronic health condition that is best managed with long-term treatment with medications (e.g., methadone, buprenorphine, naltrexone).A poorly understood challenge is why many women do not remain engaged with medications for opioid use disorder (MOUD) long enough to achieve sustained benefits. We aimed to identify barriers and facilitators that impact women's MOUD adherence. METHODS: We conducted in-person interviews and focus groups with 20 women who had received MOUD for at least 90 days in Springfield and Holyoke, Massachusetts in 2018. Using grounded theory, we inductively identified major themes and selected illustrative quotations. FINDINGS: Why women do not adhere to MOUD is shaped by fears and anxiety rooted in MOUD-related stigma and discrimination as directed toward women from multiple sources, including: (1) the internalization of messaging from family/friends/partners, peer support groups, and social media that equate pharmacotherapies to "substituting one drug for another;" (2) gender-specific side effects of pharmacotherapies related to weight gain, tooth decay, and interactions with anti-anxiety medications; (3) negative consequences resulting from being discovered as a MOUD client, including loss of child custody, children being bullied in school, loss of employment or workplace-related stigma, and being associated with sex-work. Women identified the following key facilitators of MOUD adherence: avoiding pain, sickness, and death; feeling "safe" in treatment settings, particularly for women with histories of sexual trauma and intimate partner violence; developing positive routines that replace opioid seeking behaviors and build self-esteem; maintaining healthy boundaries with friends, family, and partners who actively use opioids; and offering "relatable" peer support to other women as a source of recovery "hope." CONCLUSION: Women encounter gendered MOUD-social stigma and support from individual, interpersonal, and community level sources that if addressed collectively, can inform improvements to MOUD engagement and adherence efforts.

Willing to present orally: Yes

Financial Support: Supported by the University of Massachusetts Worcester Center for Clinical and Translational Science (UMCCTS) Grant No. UL1TR001453. Dr. Evans is also supported by The Greenwall Foundation, the National Institute on Drug Abuse (NIDA) UG3 DA0044830-02S1, and the Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Substance Abuse Treatment (CSAT) Grant No. 1H79T1081387-01.

Name of Sponsor (If you are NOT) a CPDD Member: Elizabeth Evans, PhD

Email Address of Sponsor : eaevans@umass.edu

Prefix: Ms.

First Name: Alice

Last Name: Fiddian-Green

Degrees: MA MD Ph.D etc:: MPH, PhD(c)

Email: afiddian-green@schoolph.umass.edu

Company Affiliation: UMass Amherst School of Public Health and Health Sciences

Mailing Address: 715 N. Pleasant St.

Address 2: Arnold House

City: Amherst

State: MA

Zip/Postal: 01003

Country: United States

Phone: 413-923-2988

ID: 141
Substance use and quality of life in an urban cohort of people living with HIV and substance dependence

Samantha Rawlins-Pilgrim, Boston Medical Center, samantha.rawlins-pilgrim@bmc.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: AIDS/Immune

Abstract: Aim: To assess the association between substance use and quality of life in an urban cohort of people living with HIV and substance dependence. Hypothesis: Substance use will be associated with lower health related quality of life (HRQOL). Methods: HRQOL was measured at baseline in the prospective Boston Alcohol Research Collaboration on HIV/AIDS (ARCH) study, a cohort of people with HIV and substance dependence. Substance use was measured as past 30 day use using the Addiction Severity Index. DSM IV substance dependence criteria were assessed using the Mini International Neuropsychiatric Interview. HRQOL was measured by the physical (PCS) and mental component summary (MCS) scores of the Veterans RAND 12-item health survey. Associations between substance use and HRQOL were tested using linear regression. Multivariable analyses were adjusted for age, sex, race, marital/partner status, education, income, homelessness, CD4 cell count and the Charlson comorbidity index. Results: Participants (n = 245) were mean age 48.5 (+/- 9.5) years, 64% male, 50% black, 25% Hispanic and 20% white. The mean PCS was 42 and mean MCS was 44 (score range 1-100, higher=better). Past 30 day substance use was common with 51% of participants reporting heavy drinking, 30% cocaine use, 24% illicit opioid use and 44% cannabis use. There was a non-significant association with worse PCS scores in participants who met higher numbers of alcohol dependence criteria ($p = 0.11$). There were no significant associations between substance use or drug dependence criteria and MCS scores. Conclusion: Surprisingly, substance use was not associated with quality of life in people with HIV infection and substance dependence. This lack of association may be related to methodological limitations of cross-sectional analyses, or, in this population with multiple risk factors for worse physical and emotional health, substance use alone may not have a substantial effect on quality of life.

Willing to present orally: Yes

Financial Support: U01AA020784, U24AA020778, U24AA020779, UL1TR001430

Name of Sponsor (If you are NOT) a CPDD Member: Richard Saitz, MD, MPH

Email Address of Sponsor : rsaitz@bu.edu

Prefix: Dr.

First Name: Samantha

Last Name: Rawlins-Pilgrim

Degrees: MA MD Ph.D etc:: MD

Email: samantha.rawlins-pilgrim@bmc.org

Company Affiliation: Boston Medical Center

Mailing Address: 45 E Newton St

Address 2: Apt 508

City: Boston

State: MA

Zip/Postal: 02118

Country: United States

Phone: 8572050326

ID: 142
Cingulo-hippocampal effective connectivity and drug cue related attentional bias in opioid use disorder

Liangsuo Ma, Virginia Commonwealth University, liangsuo.ma@vcuhealth.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Imaging

Abstract: Aims: Individuals with opioid use disorder (OUD) readily relapse when exposed to opiate-predictive cues. Previous functional magnetic resonance imaging (fMRI) studies have identified corticolimbic network changes that are underlying drug cue reactivity in OUD. However, how brain regions within this network interact in response to opiate cues is still unclear. This study aims to answer this question and provide benchmark results for future treatment studies using brain connectivity as biomarkers. Methods: Effective (directional) connectivity (EC) was inferred using dynamic causal modeling of fMRI data acquired from 13 OUD subjects and 14 subjects with dual-diagnosis of OUD and cocaine use disorder while performing an opioid-word Stroop task. Subjects saw opioid (OW) and neutral words (NW) with different colors, and were instructed to indicate word color but ignore the word's meaning. The differential effects of the OW and NW served as the modulator for ECs and attentional bias (AB) captured by drug-related words was indexed by the difference of reaction times during OW and NW trials. The relationship between EC and AB was tested using linear regression analysis. Results: Our analyses showed that two ECs originating from the left anterior cingulate cortex (ACC) had the largest OW-elicited modulatory changes (i.e., L ACC to R hippocampus, and L ACC to R posterior cingulate cortex). The modulatory changes on these two ECs were positively associated with attentional bias. Conclusions: These data suggest that exaggerated attentional capture by OW in OUD is driven by enhanced directional connectivity from ACC to episodic memory and self-referential nodes, perhaps related to the role of ACC as a hub for salience detection. The finding on the ACC to hippocampus EC is consistent with our published result found in the cocaine use disorder.

Willing to present orally: No

Financial Support: NIDA Grants # U54 DA038999 (FGM), # P50 DA033935 (KAC)

Name of Sponsor (If you are NOT) a CPDD Member: F. Gerrard Moeller

Email Address of Sponsor : frederick.moeller@vcuhealth.org

Prefix: Dr.

First Name: Liangsuo

Last Name: Ma

Email: liangsuo.ma@vcuhealth.org

CC Email: liangsuoarthur@yahoo.com

Company Affiliation: Virginia Commonwealth University

Mailing Address: 203 East Cary Street Suite 202

City: Richmond

State: VA

Zip/Postal: 23219

Country: United States

Phone: 8048282871

ID: 143
Marijuana and alcohol use among National Guard soldiers across the urban-rural continuum

Lara Coughlin, University of Michigan, lamoody3@vtc.vt.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Other Drug Category: Marijuana

Topic: Dependence

Abstract: AIM: The National Guard provides critical support both domestically and abroad with soldiers dispersed throughout America and spanning the urban-rural continuum. To determine if location-dependent interventions are needed, we compared the prevalence and severity of marijuana and alcohol use among National Guard members across localities. METHODS: Michigan National Guard members were enrolled (N=2746) during drill weekends as part of a larger trial. Soldiers were screened for marijuana (ASSIST; prevalence=5%) and alcohol use (AUDIT; prevalence=82%). Urban-rural locality, based on Rural-Urban Commuting Areas, and substance use was assessed with hurdle models to separately evaluate prevalence and severity. Covariates including demographic, mental health, and National Guard characteristics measures were considered using an exhaustive Bayesian Information Criterion model selection routine. RESULTS: The selected covariates for marijuana use were age and depression (PHQ-9) and age, gender, depression, and PTSD (PCL-5) for alcohol use. Prevalence of marijuana and alcohol use was predicted by locality (AOR=0.91, CI=0.84,0.99, p = 0.03; AOR=0.96, 95% CI=0.93,1.00, p = 0.04, respectively) with higher prevalence in urban areas. Neither severity of marijuana nor alcohol use was predicted by a main effect of locality. However, the interaction of locality and depression predicted marijuana use severity (RR=1.01, CI=1.01,1.01, p < 0 .001) and the interaction of locality and age predicted severity of alcohol use (RR=1.00, CI=1.00,1.00, p < 0 .01). CONCLUSIONS: Prevalence of marijuana and alcohol in the National Guard is disparately problematic across localities with higher prevalence in more central, highly populated areas. The most severe marijuana use is in rural soldiers with depression whereas alcohol use is highest in younger soldiers residing in urban areas. Findings may inform future work considering accessibility and utilization of treatment for Guard members across the urban-rural continuum. Next steps include investigating a web-based intervention to reduce substance misuse, and assessing if locality moderates outcomes.

Willing to present orally: No

Financial Support: Supported by NIAAA 1RO1AA023122 and T32AA007477.

Name of Sponsor (If you are NOT) a CPDD Member: Frederic Blow

Email Address of Sponsor : fredblow@med.umich.edu

Prefix: Dr.

First Name: Lara

Last Name: Coughlin

Degrees: MA MD Ph.D etc:: Ph.D.

Email: lamoody3@vtc.vt.edu

CC Email: lamoody3@gmail.com

Company Affiliation: University of Michigan

Mailing Address: 859 Irvin Street

City: Plymouth

State: MI

Zip/Postal: 48170

Country: United States

Phone: 4138844495

Membership Year: 2014

Sponsor: Dr.Warren Bickel, Ph.D.

Research Interests: Etiology,Treatment

Date of Membership: eligible for MIT

ID: 144
Boredom induced temporal discounting in cocaine users

Thomas Chao, New York State Psychiatric Institute , tommychao33@hotmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Behavior

Abstract: AIM: Impulsive decision-making increases risk for cocaine use and relapse. Little is known about the influence of transient states on decision-making in cocaine users. Self-report data suggest that cocaine use is often preceded by boredom. Transient boredom-related increases in impulsive choice could mechanistically link boredom and cocaine use. Here, we present preliminary data on the effects of boredom on impulsive decision-making (i.e. temporal discounting) in cocaine users. METHODS: 37 cocaine users averaging ~2x per week of cocaine use (48.0 ± 10.6 years old, 7F) and 15 age-matched controls (47.4 ± 10.6 years old, 0F) have completed a single session comprising two counterbalanced conditions (boredom and non-boredom), each followed by a temporal discounting measure, the Experiential Discounting Task (EDT). The boredom manipulation was the Peg-Turning Task (PTT), while the non-boredom condition involved viewing a self-selected television clip (video). State boredom was measured at baseline, during the manipulations, and post-EDT. RESULTS: As expected, the PTT increased boredom (p CONCLUSION: Experimental-induced boredom increased state impulsivity irrespective of cocaine use status. In cocaine users, an increase in boredom-related impulsive decision-making was associated with longer periods of engagement in cocaine-seeking behaviors (e.g., getting money, buying drug). This study is the first to show that boredom induction transiently increases impulsivity, and demonstrates a viable laboratory method for examining the influence of transient boredom on impulsivity and other drug-related risk factors.

Willing to present orally: Yes

Financial Support: Supported by NIDA Grants DA035846 and DA035161

Prefix: Mr.

First Name: Thomas

Last Name: Chao

Degrees: MA MD Ph.D etc:: MA

Email: tommychao33@hotmail.com

CC Email: tommychao33@hotmail.com

Company Affiliation: New York State Psychiatric Institute

Mailing Address: 30 Greenwich Ave

Address 2: Apt 5B

City: New York

State: NY

Zip/Postal: 10011

Country: United States

Phone: 9176505889

Membership Year: 2018

Sponsor: Dr. Gillinder Bedi, DPsych

Research Interests: Etiology,Treatment

ID: 145
Lorcaserin decreases cannabis self-administration in daily cannabis smokers following several days of abstinence

Margaret Haney, Columbia University Medical Center, Meg.Haney@nyspi.columbia.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Treatment

Abstract: Aims: FDA-approved medications are needed to improve treatment outcome for cannabis use disorder (CUD). In non-human primates, lorcaserin (5HT2c agonist), dose-dependently reduces both THC self-administration and cue-induced reinstatement of THC-seeking. This placebo-controlled, within-subject, human laboratory study tested the effects of lorcaserin on: cannabis intoxication (e.g., 'good drug effect'), cannabis withdrawal symptoms (disrupted mood, sleep, food intake), and cannabis self-administration after 3 days of abstinence ('relapse') and under non-abstinent conditions ('abstinence initiation'). Methods: Nontreatment-seeking, daily cannabis smokers completed two, 14-day inpatient phases: lorcaserin (10 mg BID) was administered in one phase and placebo in the other phase in counter-balanced order. In each phase, the following inpatient conditions were tested: (1) repeated, controlled cannabis administration (7.0% THC) at no cost, (2) no cannabis administration, or (3) the option to self-administer individual puffs of cannabis (at a financial cost) following either 0 or 3 days of abstinence. An outpatient washout (> 7 days) separated the two inpatient phases. Results: Fifteen participants (4F,11M), 21-46 years of age, averaging 2.9 + 1.9 grams of cannabis/day, completed the study. Relative to placebo, lorcaserin significantly decreased cannabis self-administration after 3 days of abstinence; participants maintained on placebo purchased 9.3 + 1.8 cannabis puffs vs 5.3 + 1.8 puffs on lorcaserin ($p < 0.001$). Lorcaserin did not significantly alter cannabis self-administration under non-abstinent conditions. Data analysis is ongoing to determine the effects of lorcaserin on cannabis intoxication and withdrawal symptoms. Conclusions: Lorcaserin reduced cannabis smoking in participants following several days of abstinence without altering cannabis use under non-abstinent conditions. Few medications have been shown to significantly reduce cannabis self-administration in human laboratory models, supporting further clinical testing of lorcaserin for CUD. Overall, the study suggests that testing the effects of potential pharmacotherapies under distinct, clinically relevant conditions could provide signals for optimal application.

Willing to present orally: Yes

Financial Support: NIDA supported this research (5U54DA037842) and supplied the study cannabis.

Prefix: Dr.

First Name: Margaret

Last Name: Haney

Degrees: MA MD Ph.D etc:: Ph.D.

Email: Meg.Haney@nyspi.columbia.edu

Company Affiliation: Columbia University Medical Center

Contact Title: Associate Professor of Neurobiology

Mailing Address: 1051 Riverside Drive, Unit #120

City: New York

State: NY

Zip/Postal: 10032

Country: United States

Phone: (646) 774-6153

Membership Year: 2000

Sponsor: M.W. Fischman and Richard Foltin

Travel Award: 1995

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

Date of Membership: Director 2017-2021

ID: 146
Adolescent onset marijuana use and risk for opioid misuse in an urban cohort

Beth Reboussin, Wake Forest University School of Medicine, brebouss@wakehealth.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Other Drug Category: Marijuana

Topic: Prevention

Abstract: Aim: Opioid overdoses in many large cities increased by 54 percent between 2016 and 2017. Ecologic data suggest marijuana legalization may curb the opioid epidemic by providing an alternative form of pain treatment, however, limited prospective epidemiologic data suggest marijuana use may increase an individuals' risk for opioid misuse. We address this gap by examining early adolescent marijuana use and risk for opioid misuse during young adulthood in an urban cohort. Methods: Data are from a study of 600 youth (86% Black, 70% low SES) residing in Baltimore City followed from ages 6-26. Logistic regression examined the impact of early adolescent (age 14 or younger), late adolescent (age 15-18), and young adult (19-26) marijuana onset on opioid misuse in young adulthood adjusting for sociodemographics, neighborhood violence and disorder and early onset drinking and tobacco use. Opioid misuse was defined as using narcotics or painkillers without a doctor telling you to use them or use of heroin. Results: Overall, 15% of the sample misused opioids (24% among early adolescent onset marijuana users, 17% late adolescent onset, 15% young adult onset, and 9% never users; p=0.002). After adjusting for individual and neighborhood level demographics, early adolescent (OR=3.0, CI=1.5,5.8) and late adolescent (OR=2.1, CI=1.1, 3.9) onset users were more likely to misuse opioids than non-marijuana users. Young adult onset users were not significantly different than non-users. Late adolescent onset marijuana use was no longer significant after adjustment for early use of other drugs. Conclusion: Findings are consistent with pharmacologic data suggesting a cross-sensitization between opioids and early marijuana use above a common liability associated with early use of other drugs. Effects of late adolescent use, however, may be explained by early use of other drugs. These findings highlight the need for more research into the marijuana/opioid pathway to inform policy makers and clinicians who perceive marijuana legalization as a means of combatting the opioid crisis.

Willing to present orally: Yes

Financial Support: NIDA DA032550

Prefix: Dr.

First Name: Beth

Last Name: Reboussin

Degrees: MA MD Ph.D etc:: PhD

Email: brebouss@wakehealth.edu

Company Affiliation: Wake Forest University School of Medicine

Mailing Address: Medical Center Blvd.

City: Winston-Salem

State: NC

Zip/Postal: 27157

Country: United States

Phone: (336) 713 5213

Fax: (336) 713-5308

Membership Year: 2006

Sponsor: Drs. James Anthony and Michael Nader

ID: 147
Implementing an updated "Break the Cycle" intervention to reduce initiating persons into injecting drug use in an Eastern European and a US "opioid epidemic" setting

Don Des Jarlais, New York University College of Global Public Health, ddesjarlais@chpnet.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Behavior

Abstract: Aims: Test the hypothesis that an updated "Break the Cycle" (BtC) intervention would reduce the likelihood that current persons who inject drugs (PWID) would assist non-injecting drug users (NIDU) with first injections in an Eastern European and a US "opioid epidemic" setting. Methods: BtC, based in social cognitive theory and motivational interviewing, was adapted from qualitative interviews in Tallinn, Estonia and Staten Island, New York City and named BtC for Avant Garde (BtCag). PWID were recruited using respondent driven sampling in Tallinn and from a syringe exchange van in Staten Island. A baseline interview covering demographic characteristics, drug use, and assisting NIDU with first drug injections was administered, followed by the BtCag intervention. Follow-up interviews were conducted 6 months' post-intervention. Results: 299 PWID (Tallinn) and 103 (Staten Island) were recruited. The primary drugs injected were fentanyl and amphetamine/methamphetamine in Tallinn and heroin and cocaine in Staten Island. We monitored rates of assisting during the 1.5 years of baseline data collection, with no secular trends towards reduced helping. 230 participants (76%) in Tallinn and 66 (64%) in Staten Island were followed-up at 6 months. Percentages assisting with first injections declined from 4.7% to 1.3% (73% reduction) in Tallinn ($p < 0.02$), and from 15% to 6% (60% reduction) in Staten Island ($p < 0.05$); ($p < 0.002$ with data combined from two sites.) The total numbers of persons assisted with first injections decreased from 43 to 15 ($p = 0.0013$). Conclusions: Participation in BtCag was associated with decreases in PWID assisting with first injections. Further implementation research on BtC type interventions are urgently needed, particularly for other areas where injecting drug use is driving HIV epidemics and for other areas experiencing continuing opioid epidemics.

Willing to present orally: Yes

Financial Support: This work was supported through grant 5-DP1-DA039542 from the US National Institute on Drug Abuse. The funding agency had no role in the design, conduct, data analysis or report preparation for the study.

Prefix: Dr.

First Name: Don

Middle Initial: C.

Last Name: Des Jarlais

Degrees: MA MD Ph.D etc:: Ph.D.

Email: ddesjarlais@chpnet.org

CC Email: jf3880@nyu.edu

Company Affiliation: New York University College of Global Public Health

Mailing Address: 665 Broadway

Address 2: Suite 800

City: New York

State: NY

Zip/Postal: 10012

Country: United States

Phone: 212*992-3728

Fax: (212) 256-2570

Membership Year: 2010

Sponsor: Dr. James Sorensen and Dr. Linda Cottler

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 148
HIV risk behavior during a randomized trial of methadone treatment initiated in jail

Mary Mitchell, Friends Research Institute, mmitchell@friendsresearch.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: AIDS/Immune

Abstract: Aim: This preplanned secondary analysis sought to test the effectiveness in reducing post-release HIV risk behavior of interim methadone in jail (IM), IM plus patient navigation (PN), or enhanced treatment as usual (ETAU) delivered to newly-detained adults with opioid use disorder (OUD). Methods: This three arm randomized clinical trial conducted in Baltimore, MD enrolled 225 individuals. Participants were administered the Addiction Severity Index and HIV Risk Assessment Battery (RAB) at baseline (in jail) and at 6- and 12-months post-release. Data were analyzed using a Generalized Linear Mixed Model (GLiMM) approach with gender as a moderator and controlling for age, prior methadone treatment, and past-30-day use of cocaine at baseline. Results: Participants were 80% male, 62% African American, with a mean age of 38.3 (SD=10.4). Baseline HIV risk behaviors included inconsistent condom use in the past 6 months, reported by 62%, with fully 35% reporting no condom use in the previous 6 months. Approximately one-fifth (19%) reported selling sex in exchange for money, while 13% reported selling sex for drugs. In addition, 37% reported having sex with multiple female partners in the past 6 months. Changes over the 12-month follow-up period will be presented. Conclusions: Results of these comparisons will inform future interventions that seek to incorporate methadone maintenance treatment into jails in order to address the opioid epidemic.

Willing to present orally: Yes

Financial Support: 2U01DA013636

Prefix: Dr.

First Name: Mary

Middle Initial: M

Last Name: Mitchell

Degrees: MA MD Ph.D etc:: Ph.D.

Email: mmitchell@friendsresearch.org

CC Email: marymitch1@yahoo.com

Company Affiliation: Friends Research Institute

Mailing Address: 1040 Park Ave. Ste 103

City: Baltimore

State: MD

Zip/Postal: 21201

Country: United States

Phone: (410) 387-0309

Membership Year: 2017

Sponsor: Dr. Robert Schwartz and Dr. Jan Gryczynski

Research Interests: Epidemiology,Health Services

ID: 149
Neurochemical and cardiovascular effects of alpha-ethylphenethylamine analogs found in dietary supplements

Charles Schindler, NIDA Intramural Research Program, cschindl@helix.nih.gov

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Stimulants

Topic: Neurobiology

Abstract: AIM: Dietary supplements often contain additives not listed on the label. alpha-Ethylphenethylamine (AEPEA), a structural isomer of amphetamine (alpha-methylphenethylamine), is one such ingredient. The aim of this study was to determine the neurochemical and cardiovascular effects of AEPEA and its analogs, N-methyl-alpha-ethylphenethylamine (MEPEA) and N,alpha-diethylphenylethylamine (DEPEA). METHODS: Synaptosomes were prepared from rat caudate tissue for dopamine transporter (DAT) assays or from whole rat brain minus caudate and cerebellum for norepinephrine transporter (NET) assays. Five male Sprague-Dawley rats received surgically-implanted telemetry transmitters for the measurement of blood pressure (BP), heart rate (HR) and locomotor activity. Rats were placed into acoustical cubicles for 3 h each weekday, and drug or vehicle was administered on Tuesdays and Fridays. RESULTS: As expected, amphetamine was a potent substrate-type releasing agent at DAT (EC50 = 5 nM) and NET (EC50 = 8 nM). AEPEA and MEPEA were more potent releasers at NET (EC50 = 79 and 58 nM) than DAT (EC50 = 272 and 179 nM). DEPEA displayed hybrid transporter activity, acting as a substrate at NET (EC50 = 209 nM) but an uptake inhibitor at DAT (IC50 = 509 nM). Amphetamine (0.1-3.0 mg/kg, sc) produced significant dose-related increases in BP, HR and activity (all F[4,24] > 5.4, p 8.6, p 6.6). CONCLUSION: Our results show that AEPEA and its analogs are biologically active. They could produce adverse cardiovascular complications due to prominent releasing activity at NET. Given that DEPEA is also an uptake inhibitor at DAT and produces increases in locomotor activity, it may also have abuse potential.

Willing to present orally: Yes

Financial Support: Supported by IRP, NIDA, NIH, DHHS.

Prefix: Dr.

First Name: Charles

Middle Initial: W.

Last Name: Schindler

Degrees: MA MD Ph.D etc:: Ph.D.

Email: cschindl@helix.nih.gov

CC Email: cwschind53@gmail.com

Company Affiliation: NIDA Intramural Research Program

Contact Title: Senior Investigator

Mailing Address: 251 Bayview Blvd., Suite 200, Rm 05A717

City: Baltimore

State: MD

Zip/Postal: 21224

Country: United States

Phone: (443) 740-2520

Fax: (443)740-2733

Membership Year: 1994

Sponsor: C.E. Johanson & C.R. Schuster

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 150
Characterization of novel allosteric modulatory effects of SRI-32743 on HIV-1 Tat protein-induced inhibition of human dopamine transporter and potentiation of cocaine reward in HIV-1 Tat transgenic mice

Jun Zhu, University of South Carolina, zhuj@cop.sc.edu

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Stimulants

Other Drug Category: cocaine

Topic: AIDS/Immune

Abstract: Aims: We performed proof of concept studies with novel dopamine transporter (DAT) allosteric modulators to establish their potential for therapeutic application in the context of HIV-1 associated neurocognitive disorders. The objective was to determine whether the allosteric modulator, SRI-32743, pharmacologically blocks Tat binding to human DAT (hDAT) and alleviates Tat-potentiated cocaine rewarding effects in mice. Methods: We assessed the kinetic analysis of [3H]DA uptake and [3H]WIN35,428 binding in PC12 cells transfected with WT hDAT in the presence of SRI-32743, cocaine or Tat, and determined the behavioral effects of SRI-32743 on cocaine conditioned place preference (cocaine-CPP) in doxycycline inducible HIV-1 Tat transgenic (iTat) mice. Results: SRI-32743 inhibited [3H]DA uptake (IC50, 9.9 μM) with a 17-fold greater inhibition than the potency of [3H]WIN35,428 binding (IC50, 168 μM) with 68.4% and 71.4% of its Emax, respectively. Tat (140 nM) induced 30% and 20% reduction in [3H]DA uptake and [3H]WIN35,428 binding, respectively, which was attenuated by SRI-32743. SRI-32743 and indatraline, a DAT competitive inhibitor, increased the cocaine IC50 values of [3H]DA uptake by 164% and 280%, respectively. The cocaine (1 μM)-induced dissociation rate (0.238 ± 0.030) of [3H]WIN35,428 binding was similar to that induced by 50 nM SRI-32743 (0.187 ± 0.027), however, SRI-32743 slowed the cocaine-induced dissociation rate to 0.032 ± 0.005. Following 14 day-doxycycline treatment, iTat-tg mice exhibit a 2-fold potentiation of cocaine-CPP, which was dose-dependently ameliorated by pretreatment of SRI-32743 (1 or 10 mg/kg/d, i.p.) prior to CPP. Conclusions: This study demonstrates allosteric modulatory effects of SRI-32743, attenuating cocaine binding on DAT and Tat-induced inhibition of DA uptake and DAT binding sites. Given that Tat-induced dysfunction of DAT function may contribute to the potentiation of cocaine reward in iTat mice, these results raise the exciting possibility of developing allosteric modulators as potential therapeutic interventions for HIV infected patients with concurrent cocaine abuse.

Willing to present orally: Yes

Financial Support: NIH grants R01DA035714, R21DA041932 and R33DA029962

Name of Sponsor (If you are NOT) a CPDD Member: Jun Zhu

Email Address of Sponsor : zhuj@cop.sc.edu

Prefix: Dr.

First Name: Jun

Last Name: Zhu

Degrees: MA MD Ph.D etc:: MD, Ph.D.

Email: zhuj@cop.sc.edu

Company Affiliation: University of South Carolina

Contact Title: Associate Professor

Mailing Address: 718 Sumfer Street

Address 2: Coker Life Sciences building room 611

City: Columbia

State: SC

Zip/Postal: 29208

Country: United States

Phone: 8037777924

Fax: 803-777-8356

Membership Year: 2015

Sponsor: Dr. Linda Dwoskin and Dr. Michael Bardo

ID: 151
Conditioned neural responses to methamphetamine-paired contexts

Emma Childs, University of Illinois, echilds@uic.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Imaging

Abstract: AIM: Human laboratory drug conditioning studies provide the opportunity to study the processes by which drug cue associations are formed and how the cues come to powerfully influence behavior. An understanding of these processes in humans, including the underlying neural circuitry, will guide new cue-focused treatment strategies for addiction. In this study, we examined conditioned neural responses to contexts paired with methamphetamine (MA) using conditioned place preference (CPP) procedures. METHODS: Volunteers (N=10) completed six conditioning sessions, three each with 20mg MA and placebo (PL), in pseudorandomized order. Participants received MA in one room and PL in another. We assessed acquisition of conditioning by comparing pre- to post-conditioning changes in preference for the MA-room. At a separate session, participants underwent fMRI scanning with a cue-reactivity task using MA-room, PL-room, and neutral images. RESULTS: Participants acquired CPP, shown by a significant pre- to post-conditioning increase in preference for the MA-room ($p < 0 .01$). In comparison to PL-room images, the MA-room produced greater activation in several regions of interest, including the anterior cingulate/ventromedial prefrontal cortex, hippocampus, caudate, putamen, amygdala, and insula ($ps < 0 .05$). No ROIs showed greater activation to the PL-room. Comparison of MA- and PL-room activations to neutral images showed that the MA-room elicited greater activation than neutral images in the anterior cingulate and hippocampus ($ps < 0 .05$), whereas the PL-room did not differ to neutral. CONCLUSIONS: These data provide initial evidence that MA conditioning involves brain regions important to reward/motivation, salience, habitual learning, and cue memory formation. Patterns of activation to the CPP rooms are similar to those produced by generic drug images used in cue reactivity studies. Thus, the findings also support the notion that human CPP models the conditioning processes occurring during real world drug experiences. Supported by UIC Department of Psychiatry funds for pilot studies (Dr. Childs) and K01AA024519 (Dr. Weafer).

Willing to present orally: Yes

Financial Support: This research was supported by UIC Department of Psychiatry funds for pilot studies awarded to Dr. Childs.

Name of Sponsor (If you are NOT) a CPDD Member: Jessica Weafer

Email Address of Sponsor : jweafer@uchicago.edu

Prefix: Dr.

First Name: Emma

Last Name: Childs

Degrees: MA MD Ph.D etc:: Phd

Email: echilds@uic.edu

CC Email: echilds@uic.edu

Company Affiliation: University of Illinois

Mailing Address: 1601 W Taylor

Address 2: Rm 414

City: Chicago

State: IL

Zip/Postal: 60612

Country: United States

Phone: 3123552726

ID: 152
Human abuse potential study of laquinimod in recreational polydrug users

Kerri Schoedel, Altreos Research Partners Inc., kschoedel@altreos.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Other

Other Topic: Human abuse potential

Abstract: AIM: Laquinimod (LAQ) is a novel drug that interferes with NF-κB activation and downregulates inflammation in neurodegenerative CNS diseases. Partial generalization to ketamine and THC was seen at some doses in a rat drug discrimination study; however, LAQ has not demonstrated signs of abuse potential in clinical studies. The purpose of this study was to assess abuse potential of oral LAQ. METHODS: Randomized, double-blind, placebo- and active-controlled, single-dose crossover study with 0.6, 1.2 and 1.8mg LAQ, 30mg dronabinol (DRO) and placebo (PBO) in nondependent recreational polydrug users who had experience with cannabinoids and >1 other drug class. Subjects were pre-qualified with PBO and DRO. Subjective measures were administered over 48 hours. The primary endpoint, peak Drug Liking VAS (DL Emax), was analyzed using sign test, with hypothesis testing using predefined margins for minimum differences for validity (DRO vs PBO; H0: median difference [m]≤10 vs Ha: m>10), absolute abuse potential (LAQ vs PBO; H0: m≥11 vs Ha: m 10) (1-sided alpha=0.025). Secondary subjective endpoints were analyzed using mixed model or nonparametric tests (2-sided alpha=0.05). RESULTS: 66 subjects were randomized and 40 completed. Study validity was confirmed by DL Emax for 30mg DRO vs PBO (m=19.5; p=0.0002). DL Emax for LAQ was equivalent to PBO (m=0; p < 0 .0001), and statistically significantly lower than DRO 30mg (m≥20; p≤0.003). Secondary endpoints showed significantly lower effects of LAQ vs DRO, which were also not significantly greater than those of PBO. LAQ was safe and well tolerated in this population. CONCLUSION: This valid study demonstrated that LAQ has no abuse potential at therapeutic (0.6mg) or supratherapeutic doses (1.2 and 1.8mg) vs PBO, and significantly lower abuse potential vs DRO in recreational polydrug users. This is the first human study examining abuse potential of this novel drug.

Willing to present orally: Yes

Financial Support: Funded by Teva Pharmaceuticals.

Prefix: Dr.

First Name: Kerri

Middle Initial: A.

Last Name: Schoedel

Degrees: MA MD Ph.D etc:: Ph.D.

Email: kschoedel@altreos.com

Company Affiliation: Altreos Research Partners Inc.

Mailing Address: 50 Wanda Road

City: Toronto

State: ON

Zip/Postal: M6P 1C6

Country: Canada

Phone: 4164346921

Membership Year: 2009

Sponsor: Edward Sellers and Jack Henningfield

Research Interests: Molecular Biology Pharmacology Behavioral Pharmacology

ID: 153
Providing an FDA-approved prescription opioid disposal method does not improve parental disposal intentions: the strong effect of past misuse and risk perception

Terri Voepel-Lewis, University of Michigan, terriv@umich.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Prevention

Abstract: Aim: Retention of leftover prescription opioids poses risks for adolescents and children and may reflect barriers to action. The purpose of this randomized, controlled trial was to examine whether providing a "nudge" behavioral intervention (i.e., an FDA-approved disposal method) would increase opioid disposal rates among parents. Methods: With IRB approval and consent, 266 parents whose children were prescribed an opioid were surveyed prior to surgery to examine opioid risk knowledge, risk perceptions, past opioid use and misuse. Parents were randomly assigned to the Nudge (receipt of zip-lock baggy of coffee grounds with disposal image) or Control Groups. Parents were surveyed 14 days after discharge about disposal intention and behavior. Results: Baseline characteristics and opioid risk knowledge were similar between groups. Fewer Controls had previously used a prescribed opioid (40% vs. 59% Nudge; OR 0.45 [95% CI 0.28 – 0.74]) or reported past opioid misuse (7% vs. 19% [OR 0.31 [95% CI 0.14 – 0.70]). Disposal intentions on Day 14 were high and no different for the Nudge and Control groups (85% vs. 90%; OR 1.5 [95% CI 0.64 – 3.7]). Past prescribed use of an opioid by parents was not associated with disposal intention (OR 1.11 [95% CI 0.74 – 1.66]). However, parents who intended to retain leftovers were more likely to have previously misused prescription opioids (OR 1.81 [95% CI 1.39 – 5.69]) and to believe it okay to share a prescribed opioid among friends and family (OR 3.6 [95% CI 1.3 – 7.3]). Conclusions: In this setting, parental intentions to dispose of their child's leftover prescription opioids were related to past misuse and risk perceptions but not to ready availability of an FDA-approved disposal method. These findings suggest a need to enhance opioid risk perceptions at the time of prescribing and to assess for past misuse behaviors among family members.

Willing to present orally: Yes

Financial Support: Support received by: R01DA044245, R01DA031160 and R01DA036541

Name of Sponsor (If you are NOT) a CPDD Member: Carol Boyd

Email Address of Sponsor : caroboyd@umich.edu

Prefix: Dr.

First Name: Terri

Last Name: Voepel-Lewis

Degrees: MA MD Ph.D etc:: PhD, RN

Email: terriv@umich.edu

Company Affiliation: University of Michigan

Mailing Address: 400 North Ingalls Building

Address 2: Room 2243

City: Ann Arbor

State: MI

Zip/Postal: 48109-5482

Country: United States

Phone: 734-646-6803

ID: 154
Neural correlates of inhibitory control in adolescents with symptoms of food addiction

Jillian Hardee, University of Michigan, jhardee@med.umich.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Food addiction

Topic: Imaging

Abstract: Aims The neural correlates of food addiction in adults have been investigated using the Yale Food Addiction Scale (YFAS) and functional magnetic resonance imaging (fMRI). However, research using these methods to examine food addiction in adolescents has yet to be conducted. The YFAS is a self-report questionnaire that applies substance use disorder diagnostic criteria to certain foods and was initially developed for adults but has since been adapted for children (YFAS-C). This project aims to investigate the association between inhibitory control, addictive-like eating, and brain regions implicated in executive functioning in adolescents. It is predicted that adolescents endorsing food addiction symptoms will exhibit less activation in regions involved in inhibitory control compared to adolescents endorsing no food addiction symptoms. Methods Seventy-six right-handed participants, aged 8.2–17.8 years (32 female), were recruited from the Michigan Longitudinal Study. Participants performed a go/no-go task during fMRI and completed the YFAS-C, after which they were categorized into two groups according to their YFAS-C scores (Control group: score=0; YFAS-C group: score ≥1). Inhibitory control was probed with a contrast of correct no-go versus go trials. Results A two-sample t-test comparing the Control and YFAS-C groups revealed a significant difference in three primary clusters, all exclusively in the left hemisphere (Control > YFAS-C; initial threshold of pConclusions Differences in inhibitory control are apparent in adolescents endorsing food addiction symptoms, suggesting that these individuals may be vulnerable to the emergence of food addiction problems later in life. Thus, adolescence may be a key developmental period to investigate the progression of food addiction.

Willing to present orally: Yes

Financial Support: Supported by grants from the National Institutes on Alcohol Abuse and Alcoholism (Dr. Hardee; K01 AA024804 and Dr. Heitzeg; R01 AA025790)

Prefix: Dr.

First Name: Jillian

Middle Initial: E.

Last Name: Hardee

Degrees: MA MD Ph.D etc:: Ph.D.

Email: jhardee@med.umich.edu

Company Affiliation: University of Michigan

Mailing Address: 4250 Plymouth Road

City: Ann Arbor

State: MI

Zip/Postal: 48109

Country: United States

Phone: 7342320283

Fax: 734-998-7992

Membership Year: 2014

Sponsor: Dr. Erin Bonar, Ph.D.and D. Zucker , Dr. Yip

Research Interests: Neurobiology,Psychiatric/Medical Morbidity

ID: 155
Paternal morphine exposure causes maladaptive behavior in male progeny

Andre Toussaint, Temple University , Andre.Toussaint12@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Behavior

Other Topic: Epigenetic Inheritance

Abstract: AIM: A growing body of literature indicates that parental environmental insults can influence the behavior and biology of offspring. According to recent estimates, 5 million children have fathers afflicted by substance abuse. Furthermore, there is consistent preclinical and clinical evidence suggesting that parental drug exposure can have deleterious consequences for progeny. Given the nationwide opioid addiction crisis, it is critical that we better understand the long-term impact parental drug-exposure has on subsequent generations in order to develop better therapeutic approaches for substance abuse. Here, we sought to determine the influence of paternal morphine exposure on the behavior of future progeny. METHODS: We exposed adult male rats (sires) to morphine (0.75mg/kg/infusion) for 60 days (the duration of rat spermatogenesis) using a self-administration paradigm; controls received saline. Following chronic morphine self-administration, each sire was bred with a drug-naïve female to produce F1 offspring (morphine-sired or saline-sired). Adult male and female F1 progeny of morphine-exposed and saline-treated sires were allowed to self-administer morphine (0.25mg/kg/infusion) for 10-days on an FR1 reinforcement schedule. RESULTS: We found that male, but not female, offspring took more morphine than their respective controls. F1 morphine-sired male offspring also worked harder to receive infusions of morphine, under a progressive ratio schedule. This phenotype seemed to be drug-specific in that sucrose or cocaine self-administration were not altered by paternal morphine history in male or female F1 progeny. CONCLUSION: Taken together, these results suggest that the reinforcing efficacy of morphine is enhanced in male offspring of morphine-exposed sires. Thus, our findings add to the mounting evidence suggesting that environmental perturbations experienced by parents can result in specific alterations in the behavior of offspring. We intend to use this model to examine the molecular underpinnings of addiction susceptibility.

Willing to present orally: Yes

Financial Support: NIH/NIDA K01 DA039308 NIH/NIDA DP1 DA046537

Name of Sponsor (If you are NOT) a CPDD Member: Ellen Unterwald

Email Address of Sponsor : eunterwa@temple.edu

Prefix: Mr.

First Name: Andre

Middle Initial: B

Last Name: Toussaint

Degrees: MA MD Ph.D etc:: MA

Email: Andre.Toussaint12@gmail.com

CC Email: Andre.Toussaint@temple.edu

Company Affiliation: Temple University

Mailing Address: 1701 North 13th Street

Address 2: 6th floor, Weiss Hall

City: Philadelphia

State: PA

Zip/Postal: 19122

Country: United States

Phone: 6466399887

ID: 156
Markers of inflammation, monocyte activation and intestinal permeability in patients with alcohol use disorder admitted for detoxification.

Daniel Fuster, Hospital Universitari Germans Trias i Pujol, dfuster.germanstrias@gencat.cat

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: AIDS/Immune

Abstract: AIM: To analyze disease correlates of inflammation [Interleuquin (IL)-6], monocyte activation (CD163) and intestinal permeability (sCD14) in alcohol use disorder patients seeking treatment between 2013 and 2018. METHODS: Clinical and laboratory parameters were obtained at admission. IL-6, CD163 and sCD14 were measured in frozen plasma samples. We performed bivariate analyses to detect associations between clinical and laboratory variables and markers in the highest quartile. RESULTS: We included 289 patients; Table 1 shows the main clinical and laboratory characteristics. Table 1 Median (interquartile range) Male Gender [n (%)] 224 (77.5) Age (years) 50 (43.5-57) Body Mass Index (Kg/m2) 25.6 (22.3-29.3) Daily alcohol intake (grams) 140 (100-220) AUD duration (years) 20 (10-28) Active smokers [n (%)] 220 (76.1) Cocaine use [n (%)] 65 (22.5) Cannabis use [n (%)] 61 (21.1) AST (IU) 41 (24.5-77.5) ALT (IU) 29 (18-49.2) GGT (IU) 92.5 (38-279.5) Bilirubin (mg/dL) 0.69 (0.47-1.11) Glucose (mg/dL) 92.0 (82.9-103.0) Albumin (g/L) 40 (37-42.8) Cholesterol (mg/dL) 187 (156-221) Triglycerides (mg/dL) 109 (77-178.6) Hemoglobin (g/dL) 14.1 (12.8-15.2) Median Corpuscular volume (MCV) fL 94.8 (91.0-99.0) Platelet count (109/L) 189 (136-239) HCV infection [n (%)] 31 (10.9) HIV infection [n (%)] 14 (4.9) Eritrocyte sedimentation rate (ESR)>20 mm [n (%)] 106 (36.7) C-reactive protein (CRP)>5 mg/L [n (%)] 94 (32.5) CD163 (ng/mL) 759 (494-1000) sCD14 (x106 pg/mL) 1.68 (1.33-2.08) IL-6 (pg/mL) 4.37 (1.3-9.71) The highest quartile of IL-6 was associated with age (p=0.04), grams of alcohol (p=0.02), lower albumin (p 20 (p 5 (p 20 (p 20 (p 5 (p 20.

Willing to present orally: Yes

Financial Support: Ministry of Economy and Competitiveness, Institute of Health Carlos III (RETICS RD16/0017/0003, grant PI17/00174, and Rio Hortega Program CM17/022), European fund for regional development (FEDER); Ministry of Health, Social Services and Equality, National Plan on Drugs (2015/027); Health Department Intensification Program (SLT006/17/00107), Autonomous Government of Catalonia, Spain.

Name of Sponsor (If you are NOT) a CPDD Member: Jeffrey H. Samet

Email Address of Sponsor : jsamet@bu.edu

Prefix: Dr.

First Name: Daniel

Last Name: Fuster

Degrees: MA MD Ph.D etc:: MD, PhD

Email: dfuster.germanstrias@gencat.cat

Company Affiliation: Hospital Universitari Germans Trias i Pujol

Mailing Address: Ctra. Canyet s/n

City: Badalona

State: Spain

Zip/Postal: 08916

Country: Spain

Phone: +34690376756

Sponsor: Dr. Jefrey Samet and Dr. Judith Tsui

Research Interests: Epidemiology,Psychiatric/Medical Morbidity

Date of Membership: applying for Reg. 1.1.19

ID: 157
Modeling ethanol and nicotine co-use in Sprague Dawley rats

Cassie Chandler, University of Kentucky, cassie.chandler@uky.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Polydrug

Topic: Treatment

Abstract: AIM: Concomitant alcohol drinking and tobacco use is common, and their poly-abuse results in poor treatment outcomes. As the two disorders are entwined, it may be possible to develop medications to treat alcohol and nicotine co-abuse. Our laboratory developed a model for alcohol and nicotine co-use in female alcohol-preferring (P) rats. Here, we adapted the model to male and female Sprague Dawley rats, and assessed the ability of drug pretreatments to modulate consumption. We hypothesized that pretreatment with ethanol (EtOH) or naltrexone would reduce EtOH drinking, whereas nicotine or varenicline would reduce nicotine self-administration. METHODS: Phase 1: EtOH only (n=12). Hour-long 2-bottle choice sessions between H2O and an EtOH solution, occurring in modified operant chambers. Phase 2: Nicotine + EtOH (n=10). Nicotine self-administration under an increasing fixed-ratio (FR) schedule; nicotine infusions (0.03 mg/kg/inf) and a paired stimulus light maintained responding; 2 bottles containing H2O or 0.2% saccharin/15% EtOH (w/v/v) were available. Phase 3: Nicotine + EtOH + pretreatments (n=7). Nicotine (0.2, 0.6 mg/kg), EtOH (0.5, 1.5 g/kg), varenicline (3.0 mg/kg), naltrexone (0.3 mg/kg) or vehicle were administered in a counterbalanced order; 3 maintenance sessions occurred between tests. Data were analyzed with repeated measures one-way ANOVA using the Geisser-Greenhouse correction, followed by Tukey's or Dunnett's tests. RESULTS: Rats consumed pharmacologically relevant levels of saccharin + EtOH (0.7±0.2 g/kg) and nicotine (8.5±2.1 infusions) at a FR20. Pretreatment with EtOH or nicotine did not alter EtOH consumption; however, responding for nicotine was reduced ($F_{2.68, 16.08} = 8.766$; $p=0.0014$) by the highest dose of nicotine ($p=0.0137$) and EtOH ($p=0.0249$) and varenicline ($p=0.0441$). Naltrexone failed to elicit systematic effects. CONCLUSION: These results extend our findings in P rats to Sprague Dawleys and further suggest that medications approved to treat alcohol or tobacco use disorders may not be effective as a monotherapy for individuals with co-use disorders.

Willing to present orally: Yes

Financial Support: Supported by: NIH grants R01 AA025591; T32 DA035200.

Name of Sponsor (If you are NOT) a CPDD Member: Michael T. Bardo

Email Address of Sponsor : mbardo@uky.edu

Prefix: Dr.

First Name: Cassie

Middle Initial: M

Last Name: Chandler

Degrees: MA MD Ph.D etc:: Ph.D.

Email: cassie.chandler@uky.edu

CC Email: cm_chand@hotmail.com

Company Affiliation: University of Kentucky

Mailing Address: 3820 Nicholasville Rd.

Address 2: #311

City: Lexington

State: KY

Zip/Postal: 40536-0298

Country: United States

Phone: 6017602069

ID: 158
Prescribing opioids as motivational incentives to promote health-related behaviors in patients

Kasey Claborn, University of Texas Dell Medical School, kasey.claborn@austin.utexas.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIMS: Recent qualitative studies have revealed that HIV clinicians and hospitalists are aware that clinicians sometimes prescribe opioids as motivational incentives to promote health-related behaviors in patients (e.g., appointment attendance). In this study, we aim to test the hypothesis that awareness of using prescriptions as incentives is not limited to the select populations included in prior research and can be found and quantified on a national level across provider types and specialties. METHODS: Providers with prescribing privileges (MD/DO/PA/NP) who currently work in the fields of primary care, hospital care, and surgery in the United States were recruited via e-mail to participate in an online survey. State and national healthcare provider organizations (n = 247) were contacted; 27 organizations agreed to send survey information to their members. The survey included specific questions related to prescribing opioids and other medications to incentivize patient behavior as well as validated questionnaires about opioid prescribing practices and perceptions. RESULTS: Providers (n = 48; 9 MD/DO, 10 PA, 29 NP) from 17 states have completed the survey to date. 60% acknowledged awareness of providers prescribing opioids to incentivize patient behaviors. Furthermore, 23% stated that they had prescribed opioids to incentivize patient behavior, which was similar across provider type (22% MD/DO, 20% PA, 28% NP). Providers noted additional medications prescribed or recommended as incentives, including medical marijuana, benzodiazepines, sleep medications, and stimulants. Some providers (17%) also stated that they have felt organizational pressure to make clinical decisions that do not align with current opioid prescribing guidelines. CONCLUSIONS: These preliminary findings demonstrate that many providers are aware of and/or have engaged in the practice of prescribing opioids and other medications to promote desired health-related behaviors in patients. A better understanding of the decision-making processes that contribute to this practice is needed in light of the worsening opioid epidemic.

Willing to present orally: Yes

Financial Support: None

Name of Sponsor (If you are NOT) a CPDD Member: Elizabeth Aston

Email Address of Sponsor : elizabeth_aston@brown.edu

Prefix: Dr.

First Name: Kasey

Last Name: Claborn

Degrees: MA MD Ph.D etc:: PhD

Email: kasey.claborn@austin.utexas.edu

CC Email: kasey_claborn@brown.edu

Company Affiliation: University of Texas Dell Medical School

Mailing Address: Health Discovery Building

Address 2: 1701 Trinity Street, STOP Z0600

City: Austin

State: TX

Zip/Postal: 78712-1873

Country: United States

Phone: 512-495-5945

ID: 159
Sex differences in physical and mental health among people living with HIV/AIDS who smoke tobacco

Marina Fodor, Wayne State University, m.fodor@wayne.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Sex Differences

Abstract: AIM People living with HIV/AIDS (PLWHA) who smoke tobacco face many increased health risks and prior research has demonstrated associations between smoking and various aspects of mental health. However, little is currently known about whether facets of physical and mental health, including depression, anxiety, and pain, differ by sex in PLWHA who smoke cigarettes. METHODS We examined baseline physical and mental health factors in PLWHA (N = 158; 32.9% female) seeking treatment in an ongoing smoking cessation trial. Depressive symptoms were measured using the Beck Depression Inventory – II, anxiety was assessed using the State-Trait Anxiety Inventory for Adults, and the RAND Short Form Survey (SF-36) was used to evaluate health domains including physical functioning, physical role limitations, emotional role limitations, energy/fatigue, emotional well-being, social functioning, pain, and general health. Carbon monoxide (CO) levels were used to assess cigarette smoking at baseline. RESULTS State and trait anxiety scores, as well as depression scores, did not differ by sex, but baseline CO levels were significantly higher in male participants ($t(151) = -2.53$, $p < .05$). Female participants received significantly lower scores than male participants indicating less favorable health states across all SF-36 domains except that of social functioning. After accounting for employment status, baseline CO levels, and emotional well-being, female participants reported significantly higher levels of pain than male participants (OR = 1.017, CI = 1.00-1.03). The remaining six SF-36 health domains were found to be highly correlated and were not included in the regression model. CONCLUSION Among PLWHA who smoke, female participants reported significantly higher levels of pain, but there were no sex differences in depressive symptoms or anxiety. These findings underscore the need for increasing the efficacy of smoking cessation programs for female participants living with HIV/AIDS.

Willing to present orally: Yes

Financial Support: NIH R01 DA034537, Joe Young, Sr./Helene Lycaki Funds (State of Michigan), and Detroit Wayne Mental Health Authority

Name of Sponsor (If you are NOT) a CPDD Member: David Ledgerwood

Email Address of Sponsor : dledgerw@med.wayne.edu

Prefix: Ms.

First Name: Marina

Last Name: Fodor

Degrees: MA MD Ph.D etc:: MA

Email: m.fodor@wayne.edu

Company Affiliation: Wayne State University

Mailing Address: 1321 Orleans St

Address 2: Apt 402

City: Detroit

State: MI

Zip/Postal: 48207

Country: United States

Phone: 3133278558

ID: 160
Who avoids formal treatment? Characterizing a group of opioid-dependent individuals

Sydney Silverstein, Boonshoft School of Medicine Wright State University, sydney.silverstein@wright.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aims: Ohio's recent Medicaid expansion has made drug treatment options increasingly available to opioid users in the Dayton area. If standard barriers such as access and cost are decreasing, it is urgent to better understand who is avoiding formal treatment, and why. Drawing on quantitative data on drug use and treatment behaviors, we aim to characterize individuals who have never enrolled in treatment. Methods: Baseline structured interviews were conducted with 360 individuals who met the DSM-5 criteria for current opioid use disorder (moderate or severe), had used illicit buprenorphine in the past 6 months, were 18 years of age or older, and resided in the Dayton (OH) area. SPSS was used to conduct statistical analyses of the baseline data and identify differences between the individuals who had never been in treatment (inpatient, outpatient, or MAT via prescribing doctor) for opioid use (n=54) and those who had (n=306). Chi-square tests and one-way ANOVA were used to compare treatment and no treatment groups (NTG) in terms of socio-demographics, drug use characteristics, and attitudes towards substance use treatment. Results: While (61.1%) of the NTG and (49%) of the treatment group were male, this difference was not statistically significant. A majority of both the NTG and treatment groups were white (85.2% and 91.8%, respectively). A significantly larger percentage of the NTG group expressed that they were too embarrassed or ashamed to go to treatment (20.4% vs 7.5%, p=.003) and that they could handle their drug use on their own (29.6% vs 13.4%, p=.003). Of the NTG sub-sample, 79.6% (n=43) have attempted self-treatment on their own, and all of these individuals have attempted self-treatment with illicit buprenorphine. Conclusion: Novel treatment strategies—and particularly self-treatment with diverted buprenorphine—may be forming among opioid-dependent individuals. Further research is needed to explore the nature of self-treatment.x

Willing to present orally: Yes

Financial Support: NIH/NIDA Grant No. 1R01DA040811, Daniulaityte (PI)

Name of Sponsor (If you are NOT) a CPDD Member: Raminta Daniulaityte

Email Address of Sponsor : raminta.daniulaityte@wright.edu

Prefix: Dr.

First Name: Sydney

Middle Initial: M

Last Name: Silverstein

Degrees: MA MD Ph.D etc:: PhD

Email: sydney.silverstein@wright.edu

CC Email: sydney.silverstein@wright.edu

Company Affiliation: Boonshoft School of Medicine Wright State University

Mailing Address: 3171 Research Blvd

Address 2: Suite 234

City: Kettering

State: OH

Zip/Postal: 45420

Country: United States

Phone: 9148865086

ID: 161
Racial identity and substance use: The promotive and protective role of racial identity profiles

Richelle Clifton, Indiana University Purdue University Indianapolis, richelleclifton@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Ethnic Differences

Abstract: AIM Racial identity has been shown to buffer against the effects of racial discrimination among African Americans. Recently, researchers have developed a more comprehensive assessment of racial identity through the construction of profiles. These profiles help better identify combinations of racial identity that are most protective, as well as those that may increase risk. To date a majority of the research has been conducted on internalizing and academic outcomes, with limited research on externalizing outcomes, such as substance use. The current study aimed to fill this gap in the literature. METHODS 199 African American college students (81.9% female) completed measures on racial identity, racial discrimination, alcohol use, and cannabis use. RESULTS Four racial identity profiles were identified, which were labelled as race-focused (n=134), multiculturalist (n=20), integrationist (n=20), and undifferentiated (n=25). Among this sample, the probability of having a particular profile was not significantly associated with elevations in alcohol or cannabis use. However, a moderating effect was found between the profiles and racial discrimination, such that individuals with the race-focused profile were at highest risk for using alcohol as a consequence of discrimination (b=0.996, p 0.05). Null effects were found for cannabis use. CONCLUSION Based on these preliminary results, there is evidence for the differential effects of racial identity profiles on alcohol use. Individuals with the race-focused profile appear to be at greater risk for alcohol use associated with racial discrimination, and those with integrationist profiles at lower risk for use. More research is needed to examine these potential effects among cannabis use. These findings can be used to inform future research related to racial identity and interventions for African Americans experiencing racial discrimination.

Willing to present orally: No

Financial Support: K01DA043654, R25DA035163 & P30DA027827 from the National Institute on Drug Abuse

Name of Sponsor (If you are NOT) a CPDD Member: James Sorensen

Email Address of Sponsor : James.Sorensen@ucsf.edu

Prefix: Ms.

First Name: Richelle

Middle Initial: L

Last Name: Clifton

Degrees: MA MD Ph.D etc:: BS

Email: richelleclifton@gmail.com

CC Email: rclifto@iu.edu

Company Affiliation: Indiana University Purdue University Indianapolis

Mailing Address: 101 S Harding Street

Address 2: Apt 201

City: Indianapolis

State: IN

Zip/Postal: 46222

Country: United States

Phone: 3072876948

ID: 162
Initial treatment responses in opioid use disorder: A universal predictor of outcome

Sean Luo, Columbia University, xsl2101@cumc.columbia.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim Opioid use disorder treatment remains challenging: many drop out, and for those who stay, many relapse. A quantitative method to risk-stratify for treatment failure early on may allow us to tailor different strategies to different patients. While several studies have reported initial treatment response as a predictor of final outcome at the group level, the validity of this predictor in creating a predictive model for risk scoring at the individual level has not been examined. Methods Using the largest pragmatic randomized clinical trial to date for methadone and buprenorphine conducted in the National Drug Abuse Clinical Trials Network (CTN, START study, N = 1134), we examined the predictive performance of Week 1-4 Urine Drug Screen (UDS) data. We selected the best performing model to create a risk score for stratifying patients into a higher vs. lower risk group for dropping out or non-abstinence at six month (end of the study). Results Consistent with previous findings, the achievement of abstinence early does not reliably predict abstinence at the end of the study (PPV=0.57), but the lack of achievement of abstinence is highly predictive of non-abstinence or drop out (NPV=0.89). In particular, this effect is more pronounced for the buprenorphine group (PPV=0.51/NPV=0.96) than the methadone group (PPV=0.63/NPV=0.84). The best performing predictive model incorporates both UDS and treatment group assignment, with a two tier scoring scheme to yield a median end-of-treatment probability of abstinence of 11.45% for the higher risk group and 40.07% for the lower risk group. Conclusion Early treatment failure is a good negative outcome predictor for both methadone and buprenorphine, and more reliably so for patients assigned to buprenorphine. Risk scoring for treatment failure at the end of the first month may allow for adaptive clinical trial strategies better tailored to high-risk patients.

Willing to present orally: Yes

Financial Support: This research is in part supported by NIDA grant 5K23DA042136.

Name of Sponsor (If you are NOT) a CPDD Member: Edward V. Nunes

Email Address of Sponsor : Edward.Nunes@nyspi.columbia.edu

Prefix: Dr.

First Name: Sean

Middle Initial: X

Last Name: Luo

Degrees: MA MD Ph.D etc:: M.D.; Ph.D.

Email: xsl2101@cumc.columbia.edu

Company Affiliation: Columbia University

Mailing Address: 1051 Riverside Dr., Unit 66

City: New York

State: NY

Zip/Postal: 10024

Country: United States

Phone: 6467746144

Fax: 646-774-6111

Membership Year: 2015

Sponsor: Dr. Edward Nunes, PhD

Research Interests: Clinical Drug Development Genetics

ID: 163
Does online substance use education improve nurses' knowledge in addiction medicine? An educational evaluation in a Canadian setting

Kevin Lorenz, BC Centre on Substance Use, kevlorz@me.com

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Treatment

Abstract: Aim: To assess the changes of pre and post knowledge acquisition among nurses participating in an online addiction medicine certificate. Methods: Enrolled nurses accessed an online certificate programme that consisted of 16 modules and completed pre- and post- knowledge tests utilizing multiple-choice questions. T-tests of mean test scores (pre- and post-) assessed the knowledge acquisition. A final evaluation form explored course satisfaction. Results: Of the total participants (N=1265) that registered between May 2017 and February 2018, 1152 (91.1%) self-identified as a registered nurse and 113 (8.9%) as a nurse practitioner. Of those nursing professionals, 371 (29.3%) completed the certificate and 118 provided demographic data (10.2%). The median year of nursing school graduation was 2010 (Interquartile Range [IQR]: 2002-2015). The average post-test scores of certificate graduates were significantly higher than their pre-test scores (Mean Difference [MD]: 27.96; 95% Confidence Interval [CI]: 26.57 – 29.36; $p < 0$ .001). Conclusions: Providing nurses an online certificate programme in addiction medicine appears effective in improving nurses' knowledge. The addiction medicine online certificate programme provides an effective learning approach to improving knowledge, skills, and clinical competency that enable nurses to provide up-to-date evidenced based care for patients presenting with substance use disorders.

Willing to present orally: No

Financial Support: BC Centre on Substance Use

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Evan Wood

Email Address of Sponsor : bccsu-ew@bccsu.ubc.ca

Prefix: Mr.

First Name: Kevin

Last Name: Lorenz

Degrees: MA MD Ph.D etc:: BA

Email: kevlorz@me.com

CC Email: kevlorz@me.com

Company Affiliation: BC Centre on Substance Use

Mailing Address: 304-2635 Prince Edward St

City: Vancouver

State: BC

Zip/Postal: V5T4V7

Country: Canada

Phone: 16046575631

ID: 164
Impaired cognitive flexibility in young adult heavy marijuana users compared with healthy controls: Relationships with recent and lifetime marijuana use

Anita Cservenka, Oregon State University, anita.cservenka@oregonstate.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Behavior

Abstract: AIM: Daily marijuana (MJ) use among college students has increased over the past few decades. Previous studies suggest adolescent and adult MJ users may have impairments in cognitive flexibility, one domain of executive functioning (EF) that is critical to avoiding habitual responses, choosing alternatives, and which requires set-shifting and set-maintenance. The Wisconsin Card Sorting Test (WCST) is the gold standard task for assessing cognitive flexibility, but to our knowledge only one study has used the WCST in frequent MJ-using young adult college students (Hermann et al., 2007). METHODS: We recruited 18-22 year old college students, including 25 heavy MJ users (≥5 times of MJ use/week in the past year) and 33 healthy controls (HC; MJ use once/month or less in the past year) who completed the Modified-WCST. An executive function composite score was calculated for each participant based on the categories correct and perseverative errors T-scores. Participants also reported their past 30 day MJ use occasions using the Timeline Followback, number of substance use days in the past six months on the Adult Self-Report, and lifetime days of MJ use. RESULTS: Heavy MJ users had lower executive function composite scores relative to HC ($t(56)=2.15$, $p = 0.038$). Lifetime MJ use days ($r(23)=-0.54$, $p = 0.002$), past 30 day MJ use occasions ($r(23)=-0.42$, $p = 0.02$), and past six month substance use days ($rs(23)=-0.41$, $p = 0.02$), were negatively associated with EF scores, suggesting that greater lifetime and recent MJ use were related to poorer EF. Lifetime and recent alcohol and cigarette use were not related to EF scores. CONCLUSION: These results suggest that young adult college students who use MJ heavily may have impairments in cognitive flexibility that could be related to maintenance of MJ use. Although the findings suggest a dose-dependent relationship between frequency of MJ use and EF, future studies should also determine whether abstinence from MJ may alleviate these deficits.

Willing to present orally: Yes

Financial Support: Medical Research Foundation of Oregon New Investigator Grant

Name of Sponsor (If you are NOT) a CPDD Member: Alecia Dager

Email Address of Sponsor : alecia.dager@yale.edu

Prefix: Dr.

First Name: Anita

Last Name: Cservenka

Email: anita.cservenka@oregonstate.edu

Company Affiliation: Oregon State University

Mailing Address: 2950 SW Jefferson Way

City: Corvallis

State: Oregon

Zip/Postal: 97331

Country: United States

Phone: 5417371366

ID: 165
Differences in typologies of current substance use among African American and White high-school adolescents: A latent class analysis

Devin Banks, Indiana University Purdue University Indianapolis, debanks@iupui.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Ethnic Differences

Abstract: Although prior research has shown that African American adolescents are at lower risk for both single and concurrent substance use relative to their White peers, recent evidence suggests increasing risk for certain types of concurrent substance use among this group. This work has largely examined differences in specific combinations of substances and few studies have identified substance use typologies American Americans compared to Whites, limiting our understanding of changing substance use patterns among African American adolescents. To address these gaps, the current study examined latent classes of current substance use among African American and White youth. We hypothesized that African American and White adolescents would demonstrate different typologies of use, with Whites belonging to more typologies characterized by use of several substances. Participants were 7,270 White (45.4% male) and 1,301 African American adolescents (40.1% male) in grades 9-12 who reported past-30-day frequency of cigarette, alcohol, marijuana, inhalant, and other drug use. Latent class analysis identified substance use typologies among the total sample and each group. Results indicated that classes among African American and White adolescents should be analyzed separately. Four typologies emerged among African Americans: Non Use (83.0%), Marijuana and Alcohol Use (13.5%), Moderate Polysubstance Use (1.7%), and Frequent Polysubstance Use (1.8%). Five typologies emerged among Whites: Non Use (75.1%), Predominant Alcohol Use (11.9%), Alcohol, Marijuana, and Cigarette Use (10.2%), Moderate Polysubstance Use (1.1%), and Frequent Polysubstance Use (1.7%). Results indicate that African American and White adolescents demonstrate different typologies of substance use, but have similar rates of concurrent substance use. These findings are concerning considering previous findings that African American adolescents are at disproportionate risk for substance use disorder when engaged in concurrent use. Results suggest that alcohol-focused prevention content may not be pertinent among African American adolescents, but both groups may benefit from programming for concurrent substance use.

Willing to present orally: Yes

Financial Support: F31DA044728 K01DA043654 R25DA035163 P30DA027827

Name of Sponsor (If you are NOT) a CPDD Member: James Sorensen

Email Address of Sponsor : James.Sorensen@ucsf.edu

Prefix: Ms.

First Name: Devin

Middle Initial: E

Last Name: Banks

Degrees: MA MD Ph.D etc:: MS

Email: debanks@iupui.edu

Company Affiliation: Indiana University Purdue University Indianapolis

Mailing Address: 402 N Blackford St

Address 2: LD 124

City: Indianapolis

State: IN

Zip/Postal: 46202

Country: United States

Phone: 6789382469

Sponsor: Dr. Shane Perrine, PhD

Travel Award: NIDA Diretor's 2018

Research Interests: Etiology,Prevention

Date of Membership: applying for MIT 1.1.19

ID: 166
Patterns of non-prescribed buprenorphine and other opioid use among individuals with current opioid use disorder: A latent class analysis

Raminta Daniulaityte, Wright State University, raminta.daniulaityte@wright.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: AIM: With the soaring opioid epidemic, buprenorphine-based treatment has expanded substantially in the US. Simultaneously, non-prescribed buprenorphine (NPB) use has also increased. The goal of this study is to characterize heterogeneity in patterns of NPB and other opioid use among illicit opioid users recruited in the Dayton, Ohio area. METHODS: Using modified RDS methods, the study recruited 360 participants in the Dayton area who met eligibility: 1) 18 years or older, 2) current moderate/severe opioid use disorder (DSM-5), 3) past 6-month NPB use. Latent class analysis was conducted to identify subgroups based on past 6 months (days of NPB and heroin/fentanyl use; use of NPB to get high; use of non-prescribed and prescribed pain pills; participation in formal treatment) and lifetime (years since first NPB and any illicit opioid use) characteristics. Means and proportions of selected socio-demographic, other drug use and health-related characteristics were compared across classes using the 3-step approach of Asparouhov and Muthén. The Hommel method was used to adjust for multiple testing. RESULTS: Latent class analysis resulted in four classes: 1) “heavy heroin/fentanyl use” (60%, n = 214), 2) “formal treatment” (29%, n = 103), 3) “moderate BUP self-treatment” (9%, n = 32) and 4) “intensive BUP self-treatment” (3%, n = 10). After adjusting for multiple testing, the following auxiliary variables differed significantly between classes ($p < 0.001$): education level (some college), greatest number of consecutive days self-treating with NPB (ever), injection as a primary route of heroin/fentanyl administration, frequent alcohol and methamphetamine use, and experiencing overdose and incarceration in the past 6 months. In general, the heavy heroin/fentanyl use class showed a greater prevalence of adverse experiences and polydrug use compared to intense and/or moderate BUP self-treatment classes. CONCLUSION: Study contributes to a better understanding of self-treatment practices with NPB. The findings will help inform intervention and policy responses.

Willing to present orally: Yes

Financial Support: NIH/NIDA Grant No. 1R01DA040811, Daniulaityte (PI)

Prefix: Dr.

First Name: Raminta

Last Name: Daniulaityte

Degrees: MA MD Ph.D etc:: Ph.D.

Email: raminta.daniulaityte@wright.edu

CC Email: raminta.daniulaityte@wright.edu

Company Affiliation: Wright State University

Mailing Address: 3171 Research Park Blvd

City: Dayton

State: OH

Zip/Postal: 45420

Country: United States

Phone: 9378381177

Membership Year: 2012

Sponsor: Dr. Robert Carlson and Dr. Russell Falk

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 167
Tobacco and marijuana co-use in adolescents: Differences in impulsivity and gambling behavior

Víctor Martínez-Loredo, University of Oviedo, Addictive Behaviors Group, martinezlvictor@uniovi.es

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Other Drug Category: Tobaco and marijuana co-use

Topic: Adolescent

Abstract: Aim Tobacco and cannabis co-use is more prevalent among adolescents than the use of either substance alone. Available data suggest that dual use have additive negative health consequences and that THC and nicotine interact synergistically. However, sparse data exists regarding dual use among adolescents. This study aimed at analyzing differences in risk factors (impulsivity) and behaviors (alcohol and gambling) between non-users, tobacco only users and dual users. Methods 1644 adolescents (54.1% males) completed a battery of instruments comprising questions regarding socio-demographics, tobacco and cannabis use, impulsivity (Barratt's BIS-11, Zuckerman-Kuhlman's ImpSS and a delay discounting task, DD), and the Rutger's Alcohol Problem index (RAPI) and the South Oaks Gambling Screener Revised for Adolescents (SOGS-RA) for problem drinking and gambling, respectively. Mean differences and chi-squared analyses were performed to explore differences between non-users, tobacco only users and dual users in the abovementioned variables. Results A total of 9% and 7.1% reported been tobacco and dual users, respectively. There were significant differences across the three groups in the BIS-11 subscales. Tobacco only and dual users did not differ in either Imp ($p = .20$) or SS ($p = .95$). Dual users presented a higher DD than the other groups ($p < .016$). Tobacco only and dual users were more likely to be problem drinkers and gamblers than non-users. Conclusion Tobacco and cannabis co-use is an increasing health issue that is distinctly related with different impulsivity facets and problem behaviors. Interventions aimed to reduce drug demand should consider risk factors (higher BIS and DD) and behaviors (problem drinking and gambling) associated with adolescent tobacco and cannabis co-use.

Willing to present orally: Yes

Financial Support: This project has been funded by the Spanish Ministry of Health, Social Services and Equality (MSSSI-12-2012/131) and the Council for Economy and Work (FC-15-GRUPIN14-047).

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Diann E. Gaalema

Email Address of Sponsor : Diann.Gaalema@med.uvm.edu

Prefix: Mr.

First Name: Víctor

Last Name: Martínez-Loredo

Degrees: MA MD Ph.D etc:: MSc

Email: martinezlvictor@uniovi.es

CC Email: martinezlvictor@uniovi.es

Company Affiliation: University of Oviedo, Addictive Behaviors Group

Mailing Address: Pl/ Feijoo sn

City: Oviedo

State: Spain

Zip/Postal: 33003

Country: Spain

Phone: 985104189

ID: 168
Reinforcer pathology and response to contingency management for smoking cessation

Alba González-Roz, University of Oviedo, Addictive Behaviors Group, albagroz@cop.es

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Mechanisms of Action

Abstract: Aim: The recognition of the related nature of cigarette demand and impulsivity has prompt studies that integrate these two constructs. This is the first study aimed at identifying different types of treatment-seeking smokers based on cigarette demand and delay discounting. It also sought to examine how individuals with different levels of reinforcer pathology respond to Contingency Management (CM). Methods: A cluster analysis based on participants' performance on the Cigarette Purchase Task (CPT) bifactorial structure (i.e., psychological inertia and persistence) and delay discounting (AUClogd) was conducted. Chi-squared and t-tests were carried out to compare the resulting clusters in terms of 24-hour point-prevalence abstinence rates and number of continuous abstinence days at 8-week. The study sample comprised 162 treatment-seeking smokers [%female: 68; age: M = 46.77, SD = 12.11) randomly assigned to one of the following CM conditions for reinforcing abstinence: 8-week CM (n = 55) or, 6-week CM (n = 107). Results: Two clusters were identified: "low" (n = 97) vs. "high" (n = 65) reinforcer pathology. At 8 weeks (end-of-treatment), the percentage of abstinent individuals was higher in those in the "low" category (56.6%) vs. those in the "high" (46.4%) one ($\chi 2$ (1) = 5.305, p = .021, Φ = .18). Number of continuous abstinence days were significantly higher in patients with "high" versus "low" reinforcement pathology levels [(M = 14.89, SD = 9.73; M = 11.26, SD = 8.81)]. Conclusion: CM had a greater benefit for engendering longer durations of abstinence in the "high" group, but individuals with high levels of reinforcer pathology achieve lower abstinence rates. This pattering of results suggests that individuals with high levels of reinforcer pathology might benefit from cessation treatments targeted to their specific characteristics. The effect of innovative treatment procedures such as shaping cessation reinforcement or episodic future thinking within CM programs for quitting smoking warrants further research.

Willing to present orally: Yes

Financial Support: Supported by: Spanish Ministry of Economy and Competitiveness (MINECO16-PSI2015-64371-P) and European Regional Development Fund, Predoctoral Grant FPI BES-2016-076663 from the MINECO.

Name of Sponsor (If you are NOT) a CPDD Member: Diann E. Gaalema

Email Address of Sponsor : diann.gaalema@med.uvm.edu

Prefix: Ms.

First Name: Alba

Last Name: González-Roz

Degrees: MA MD Ph.D etc:: MA

Email: albagroz@cop.es

Company Affiliation: University of Oviedo, Addictive Behaviors Group

Mailing Address: Plaza Feijóo, 33003 Oviedo, Asturias

City: Oviedo

State: Spain

Zip/Postal: 33211

Country: Spain

Phone: +34 661 09 36 85

Biography: PhD student, psychologist in addictive behaviors

ID: 169
Sources of prescription opioids for misuse and dropping out of high school

Jason Ford, University of Central Florida, Jason.Ford@ucf.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: None

Abstract: Aim: Educational attainment is a well-established correlate of substance use, with high school dropouts being at the greatest risk. However, research tends to treat high school dropouts as a homogeneous group, ignoring the reality that people dropout for various reasons. The current research assessed the relationship between sources of prescription opioids for misuse and reasons for dropping out. Methods: The data were the National Survey on Drug Use and Health. For the current study, we pooled multiple years of data (2009 to 2014) and focused on young adults, respondents aged 18 to 25. To assess reasons for dropping out subgroups were created: (1) dropped out for school-related or behavioral reasons; (2) dropped out for personal, economic, or "other" reasons; and (3) graduated from high school. Results: Prevalence rates of past year opioid misuse varied significantly among the subgroups: school/behavioral (16.34%), personal/economic/other (10.41%), and graduated (9.50%; $p < 0.001$). Multivariable regression analyses showed significant differences in sources of prescription opioids for misuse ($N = 7,343$). Respondents who graduated from high school were more likely to obtain opioids via theft or fake prescription and free from a friend/relative compared to those who dropped out for personal/economic/other reasons. Additionally, respondents who dropped out for school/behavioral reasons were more likely to obtain prescription opioids via a purchase and some "other" source compared to respondents who had graduated. Finally, the source "free from friends/relatives" was associated with reduced risk for frequent opioid misuse and opioid-related substance use disorders among graduates, but was not a "protective" factor among those who had dropped out. Conclusion: The findings highlight the importance of treating high school dropouts as a heterogeneous group and has important implications for interventions.

Willing to present orally: No

Financial Support: Supported by research grants R01DA043691 (PI: Schepis) and R01DA031160 (PI: McCabe) from the National Institute on Drug Abuse, National Institutes of Health.

Name of Sponsor (If you are NOT) a CPDD Member: Sean Esteban McCabe

Email Address of Sponsor : plius@med.umich.edu

Prefix: Dr.

First Name: Jason

Middle Initial: A.

Last Name: Ford

Degrees: MA MD Ph.D etc:: Ph.D.

Email: Jason.Ford@ucf.edu

Company Affiliation: University of Central Florida

Mailing Address: 4000 Central Florida Blvd.

City: Orlando

State: FL

Zip/Postal: 32816

Country: United States

Phone: 4079477327

ID: 170
Childhood sensation-seeking and problem gambling in young adulthood: Sex matters

Natalie Levy, Columbia University Mailman School of Public Health, nsl2110@cumc.columbia.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Problem Gambling

Topic: Sex Differences

Abstract: AIM Gambling and problem gambling are prevalent among minority youth though rates vary by sex. Identifying early-life predictors of youth gambling outcomes is needed to design interventions. This study aims to evaluate childhood sensation seeking as a predictor of gambling and problem gambling in Puerto Rican young adults and differences by sex. METHODS Data were from the Boricua Youth Study (BYS) Gambling cohort - 731 young adults ages 18-29 years who completed the original BYS in Puerto Rico and New York City and consented to re-interview about gambling behavior in 2014-18. Childhood sensation seeking was assessed at 3 waves using an adapted Sensation Seeking Scale for Children. Age-adjusted sensation seeking trajectories (low, normative, accelerated and high) were generated using growth mixture models. Any past-year and problem gambling were assessed using the Canadian Adolescent Gambling Inventory. After descriptive analyses, overall and sex-stratified effects of childhood sensation seeking trajectory on gambling outcomes were estimated using multinomial logistic regression adjusted for age, sex and site. RESULTS Overall, 47% of participants reported past-year gambling (male: 54%, female: 40%) and 9% reported problem gambling (male: 12%, female: 6%). In the low sensation seeking class 62% were female whereas males were the majority (59-74%) in other classes. Respondents in the high sensation seeking class had lower adjusted odds of gambling (OR: 0.36 95% CI: 0.14, 0.93) compared with those in the normative class; this relationship was observed among males but not among females. No significant associations between sensation seeking class and problem gambling were observed overall or by sex. CONCLUSION Childhood sensation seeking trajectories did not increase the risk of gambling or problem gambling in Puerto Rican young adults but patterns varied by sex. Alternative hypotheses for elevated prevalence of problem gambling in this population should be explored (e.g. antisocial trajectories).

Willing to present orally: Yes

Financial Support: Supported by R01HD06007 (Martins, Canino, Duarte)

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Silvia Martins

Email Address of Sponsor : ssm2183@cumc.columbia.edu

Prefix: Ms.

First Name: Natalie

Middle Initial: S

Last Name: Levy

Degrees: MA MD Ph.D etc:: MPH

Email: nsl2110@cumc.columbia.edu

Company Affiliation: Columbia University Mailman School of Public Health

Mailing Address: 722 W 168th Street Room 511

City: New York

State: NY

Zip/Postal: 10032

Country: United States

Phone: 6092407752

ID: 171
State-level medical marijuana laws and marijuana use outcomes among a nationally representative lesbian, gay and bisexual individuals from 2015-2016: Gender matters

Morgan Philbin, Columbia University Mailman School of Public Health, mp3243@columbia.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Policy

Abstract: AIM: Research on medical marijuana laws (MML) demonstrates that adults in MML states report higher marijuana use (MU) than adults in non-MML states. As sexual minority adults have higher MU and marijuana use disorder (MUD) than heterosexuals, we estimated associations between MML and MU by sexual minority status, highlighting gender differences. METHODS: The 2015-2016 National Survey on Drug Use and Health assessed sexual identity (heterosexual, gay/lesbian, bisexual) among individuals ages 18+ (n=86,151), and included an indicator for state MML status. We used gender-stratified adjusted multivariable logistic regression to model the odds of past-year any MU, past-year daily MU, and past-year MUD, and tested the interaction between MML and sexual identity. Models accounted for complex survey design and adjusted for socio-demographics and other drug use. RESULTS: Heterosexual women in MML states had significantly higher past-year MU (11.6% versus 8.4%), daily MU (1.8% versus 1.0%), and MUD (0.7% versus 0.5%) than in non-MML states. Bisexual women in MML states had significantly higher past-year MU ((45.6% versus 33.6%), aOR=2.22; 95% CI=1.64-3.02) and daily MU ((10.6% versus 7.4%), aOR=1.70; 95% CI=1.08-2.70) than bisexual women in non-MML states The difference in odds of past-year MU comparing bisexual to heterosexual women was greater in MML states than in non-MML states (interaction β=0.3463, p=0.038). Residence in an MML state was not associated with MU outcomes among lesbians. Heterosexual men in MML states had higher past-year MU (18.9% versus 14.3%), daily MU (4.2% versus 2.9%), and MUD (2.3% versus 1.7%) than in non-MML states. Residence in an MML state was not associated with MU outcomes for gay/bisexual men. CONCLUSION: Differences in the association between MML and MU outcomes by gender and sexuality may be impacted by stigma toward bisexual women or variation in MML knowledge by gender and sexuality. Cross-sectional associations warrant cautious interpretation of MML effects. Potential pathways and research implications are discussed.

Willing to present orally: Yes

Financial Support: K01DA039804 (Philbin), R01DA037866 (Martins), K01DA045224 (Mauro)

Prefix: Dr.

First Name: Morgan

Middle Initial: Mari

Last Name: Philbin

Degrees: MA MD Ph.D etc:: PhD, MHS

Email: mp3243@columbia.edu

CC Email: mp3243@columbia.edu

Company Affiliation: Columbia University Mailman School of Public Health

Mailing Address: 722 West 168th Street

Address 2: Fl 5, Floor 536

City: New York

State: NY

Zip/Postal: 10032

Country: United States

Phone: 8057482461

Membership Year: 2018

Sponsor: Dr. Steffanie Strathdee, PhD and Dr. Silvia Martins, PhD

Travel Award: 2018

ID: 172
Overdose events in homeless-experienced veterans: A common event in new survey data

Stefan Kertesz, Birmingham VA Medical Center, skertesz@uab.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: All substances

Topic: Epidemiology

Abstract: Aim: Homeless persons have high rates of overdose mortality. Two events present opportunities to mitigate risk: a personal history of having survived overdose, or being around others who overdosed. To date, there has been no effort to measure the prevalence of either event among homeless persons or the predictors thereof. We report a national survey of over 5,000 homeless and formerly-homeless ("homeless-experienced") Veterans, the largest such survey ever, on prevalence of both events and their associated clinical and social risk factors. Methods: A random sample of 5,666 homeless-experienced users of Veterans Administration primary care services across the US (11/2015-11/2017) was recruited for survey through four sequential mailings followed by telephone outreach (recruitment pool 14,634, response rate 39%). The survey queried overdose "where you needed to go to the emergency room or get medical care right away" in the past 3 years, and separately, witnessing such an event. Results: Among this sample, 91% were male, 42% white, 39% black, and 39% had severe chronic pain. Among respondents, 6.6% (n=378) reported overdose, with alcohol (3.4%) more common than drugs (2.6%), 1.4% not clarifying type of substance, and 0.7% reporting both alcohol and drugs. Among drugs, opioids were reported by 1.5%. In multivariable-adjusted models, characteristics associated with overdose included: white race (Odds Ratio, OR=2.3), current homelessness (OR=1.4), receipt of a psychiatric medication (OR=1.7), elevated mental distress (OR=1.1 for +1-point on 24-point scale), and having witnessed overdose (OR=2.5). All ORs significant at p Conclusion: Homeless-experienced persons in primary care report an extremely high prevalence of overdose, with alcohol remaining the dominant contributor in this large national survey sample. Emotional distress, psychiatric medication receipt, current homelessness and being around others who overdose denote risks that may be actionable from within primary care.

Willing to present orally: Yes

Financial Support: VA Health Services Research & Development (IIR-15-095)

Prefix: Dr.

First Name: Stefan

Middle Initial: G.

Last Name: Kertesz

Degrees: MA MD Ph.D etc:: M.D., M.Sc.

Email: skertesz@uab.edu

CC Email: jpassmore@uabmc.edu

Company Affiliation: Birmingham VA Medical Center

Mailing Address: 700 19th Street South

City: Birmingham

State: AL

Zip/Postal: 35233

Country: United States

Phone: (205) 934-2958

Fax: (205) 934-7959

Membership Year: 2006

Sponsor: Drs. Jeffrey H. Samet and Joseph Schumacher

ID: 173
Opioid, GABAB, and 5-HT1A receptor agonist combinations in a mouse model of neuropathic pain

Jenny Wilkerson, University of Florida, jenny.wilkerson@cop.ufl.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Polydrug

Topic: Drug Interactions

Abstract: Aims: Chronic pain is a serious and common complaint, carries a large economic burden, and has an unmet need for better therapeutics. Prescription of opiates has been a major strategy for managing pain, but this carries is its own risks in the form of abuse and overdose. One way to reduce this liability is through combination with other drugs that enhance the analgesic effects of opioids more than the adverse effects of opioids. Here, morphine, the GABAB receptor agonist baclofen, and the 5-HT1A receptor agonist buspirone were studied alone and in combination in a mouse model of neuropathic pain: chronic constriction injury (CCI) of the sciatic nerve. Methods: CCI of the sciatic nerve or sham surgeries were performed in male and female C57BL/6J mice. Mechanical sensitivity was assessed with von Frey filaments of differing intensities and thermal sensitivity was assessed on a hotplate set at 52 degrees C with a 30-s cut-off. Results: CCI produced significant increases in sensitivity to mechanical stimuli (i.e., allodynia) and decreases in response latency to the thermal stimulus (i.e., hyperalgesia). By themselves baclofen, buspirone and morphine reversed CCI-induced mechanical allodynia and thermal hyperalgesia. A 1:1 combination of these drugs, prepared based upon their respective ED50 values, produced dose dependent anti-allodynia and anti-hyperalgesia. Naltrexone antagonized the effects of morphine, as well as the effects of drug combinations that included morphine. Likewise, the GABAB receptor antagonist CGP34358 antagonized the effects of baclofen, as well the effects of drug combinations that included baclofen. Conclusions: These findings suggest that GABAB and 5-HT1A agonists may be useful adjunctive therapies when combined with opioid agonists for the treatment of neuropathic pain.

Willing to present orally: Yes

Financial Support: This work was supported by the National Institutes of Health National Institute on Drug Abuse grant DA25267.

Name of Sponsor (If you are NOT) a CPDD Member: Dr, Lance McMahon

Email Address of Sponsor : lance.mcmahon@cop.ufl.edu

Prefix: Dr.

First Name: Jenny

Last Name: Wilkerson

Degrees: MA MD Ph.D etc:: Ph.D.

Email: jenny.wilkerson@cop.ufl.edu

Company Affiliation: University of Florida

Mailing Address: 1345 Center Drive

Address 2: JHMHSC P1-31 PO Box 100487

City: Gainesville

State: FL

Zip/Postal: 32610

Country: United States

Phone: 352-294-8908

ID: 174
Baseline characteristics of the population enrolled in, “Comparing interventions for opioid-dependent patients presenting in medical EDs (ED-SBCM)”

Amber Regis, New York University School of Medicine, amber.regis@nyumc.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim: The aim is to describe the screening process and baseline characteristics of the population recruited for the trial, “Comparing Interventions for Opioid-Dependent Patients Presenting in Medical EDs (ED-SBCM)”, including descriptive demographic and substance use characteristics. Methods: 375 participants were recruited from Bellevue Hospital Center’s Emergency Department. Screening assessments included a de-identified demographics form and the DSM-IV checklist. Eligible participants provided written informed consent and completed baseline assessments relating to substance use, treatment motivations, barriers to treatment, and quality of life. Eligible participants were randomized to receive either six sessions of strengths-based case management, or an informational pamphlet and referral list to local agencies providing alcohol and drug treatment. Results: Descriptive statistics for a selection of screening and baseline variables are summarized. Data are stratified to describe three groups: Participants who completed screening but did not proceed to informed consent; participants who proceeded to baseline assessments but were not randomized, or who were excluded from the randomized sample; and participants who completed baseline and were randomized to a study arm. Preliminary results indicate that the randomized and non-randomized samples do not differ on demographic or substance use measures. Within the randomized sample, participants that reported a non-stable living environment reported more days of alcohol [M(SE): 11.86(1.09) vs. 8.50(0.97); $p < 0$ .05] and cocaine [M(SE): 11.03(0.95) vs. 7.82(0.93); $p < 0$ .05] use in the 30 days prior to screening relative to those that classified their living environment as stable. Negative associations between age and tobacco use ($r= -0.21$; $p < 0$ .0001) and between street and prescription opioid use ($r= -0.40$; $p < 0$ .0001) were reported. Conclusion: Within this sample of opioid-dependent patients, the screening process does not appear to favor any demographic characteristics other than the inclusion criteria. Once the final dataset is available, it will be useful to examine how baseline characteristics relate to treatment outcomes.

Willing to present orally: Yes

Financial Support: U01DA015833

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Joshua Lee

Email Address of Sponsor : Joshua.Lee@nyulangone.org

Prefix: Ms.

First Name: Amber

Last Name: Regis

Email: amber.regis@nyumc.org

Company Affiliation: New York University School of Medicine

Mailing Address: 462 First Avenue.

Address 2: A bldg. Room A842

City: New York

State: NY

Zip/Postal: 10016

Country: United States

Phone: 646-501-4138

ID: 175
The impact of the affordable care act's young adult dependent coverage expansion on opioid overdoses in the emergency department

Edouard Coupet, Yale School of Medicine, edouard.coupet@yale.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Policy

Abstract: AIM The Trump administration and several policymakers have suggested that the Affordable Care Act (ACA) has fueled the opioid epidemic by subsidizing opioid pain medications. This study's objective is to understand the effect of the ACA's young adult dependent coverage expansion on ED encounters for opioid overdose. METHODS We used difference-in-differences analysis to test the hypothesis that the young adult dependent coverage expansion was associated with an increase in ED encounters for opioid overdose. We compared ED encounters before (2009) and after (2011-2013) the expansion in adults aged 23-25 years old to those aged 27-29 years old. We further stratified by prescription opioid, non-prescription opioid, and methadone overdoses. RESULTS In 2009, the mean year-quarter ED encounter rate for all types of opioid overdoses was 22.14 per 100,00 adults in 23-25 year olds. The expansion was associated with an increase in the ED encounter rate of 2.04 (95%CI -0.75 to 4.82). For prescription opioid overdoses, the mean ED encounter rate was 15.22 per 100,00 adults. The expansion was associated with a decrease in the rate of 0.60 (95%CI -1.98 to 0.77). The mean ED encounter rate for methadone overdoses was 1.94 per 100,000 adults. The expansion was associated with a decrease in the rate by 0.29 (95%CI -0.78 to 0.21). For non-prescription opioid overdoses, the mean ED encounter rate was 4.97 per 100,000 adults. The expansion was associated with an increase in the rate by 1.91 (95%CI 0.13-3.71), the only statistically significant change. CONCLUSION Our findings do not support claims that the ACA has fueled the prescription opioid epidemic. However, the expansion was associated with an increase in the rate of ED encounters for non-prescription opioid overdoses such as heroin, although almost all were non-fatal. Future research is warranted to understand the role of private insurance in providing access to treatment in this population.

Willing to present orally: Yes

Financial Support: Yale K12DA033312-06- Drug Use, Addiction, & HIV Research Scholar (DAHRS) Program

Name of Sponsor (If you are NOT) a CPDD Member: Gail D'Onofrio

Email Address of Sponsor : gail.donofrio@yale.edu

Prefix: Dr.

First Name: Edouard

Last Name: Coupet

Degrees: MA MD Ph.D etc:: MD, MS

Email: edouard.coupet@yale.edu

Company Affiliation: Yale School of Medicine

Mailing Address: 464 Congress Avenue

Address 2: Suite 260

City: New Haven

State: CT

Zip/Postal: 06519

Country: United States

Phone: 7084394407

ID: 176
Psychiatric comorbidity and order of condition onset among patients seeking treatment for chronic pain and opioid use disorder

Declan Barry, Yale University School of Medicine, declan.barry@yale.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aims: To compare psychiatric comorbidity among patients seeking treatment for opioid use disorder (OUD) with chronic pain by order of condition onset. Methods: Baseline data from 170 patients entering two clinical trials (NCT006348030 and NCT00727675) of treatments for OUD and chronic pain conducted between March 2009 and July 2013 were compared by order of condition onset (i.e., "Pain First," "OUD First," "Same Time"). The Structured Clinical Interview for DSM-IV-TR Axis I Disorders and the Diagnostic Interview for DSM-IV Personality Disorders were performed by addiction psychology and psychiatry fellows as well as clinical and counseling psychologists. Analyses of variance and chi-square tests were performed to compare baseline differences on demographics, clinical characteristics, and psychiatric diagnoses. Results: The 170 participants ranged in age from 19 to 64 years old (M=36.0, SD=10.0); 71% were men; 87% were white; 47% were employed; 87% had greater than or equal to a high school education; 20% were married; and 51% reported opioid medications as their primary drug of abuse. 52% were in the "Pain First" group, 35% in the "OUD First" group, and 13% in the "Same Time" group. The three groups differed in their frequency of co-occurring mood and anxiety disorders ($\chi 2 = 6.11$, df = 2, p = 0.047), current non-opioid substance use disorders (SUDs) ($\chi 2 = 6.35$, df = 2, p = 0.042), and pre-existing SUDs ($\chi 2 = 6.09$, df = 2, p = 0.048). The "Same Time" group displayed the highest rates of co-occurring mood and anxiety disorders (50%). The "OUD First" group exhibited the highest rates of current and pre-existing non-opioid SUDs (46% and 59%) and were the most likely to use heroin as their primary opioid (53%). Conclusion: Effective treatments of OUD and chronic pain may require targeting interventions based on order of condition onset and psychiatric comorbidity.

Willing to present orally: Yes

Financial Support: National Institute on Drug Abuse to Dr. Barry (K23 DA024050) and Dr. Schottenfeld (K24 DA000445, R01DA024695).

Prefix: Dr.

First Name: Declan

Middle Initial: T.

Last Name: Barry

Degrees: MA MD Ph.D etc:: Ph.D.

Email: declan.barry@yale.edu

CC Email: dleedham@aptfoundation.org

Company Affiliation: Yale University School of Medicine

Contact Title: Associate Professor of Psychiatry

Mailing Address: APT Pain Treatment Services

Address 2: 495 Congress Ave, 2nd floor

City: New Haven

State: CT

Zip/Postal: 6519

Country: United States

Phone: (203) 285-2708

Fax: (203) 781-4681

Membership Year: 2010

Sponsor: Dr. Richard Schottenfeld and Dr. David Fiellin

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 177
Prevalence and correlates of problematic caffeine use in a United States nationwide sample

Mary Sweeney, Johns Hopkins University School of Medicine, marymsweeney@jhmi.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Epidemiology

Abstract: Aims: Some individuals are unable to reduce caffeine consumption despite clinically significant problems exacerbated by caffeine use. The DSM-5 recognized Caffeine Use Disorder (CUD) as a condition for further study, but there is a need to better understand its prevalence and clinical significance in the general population. To address this need, we conducted a survey assessing caffeine-related distress in a nationwide sample. Methods: Respondents were 1006 online research panel participants in the United States (US) aged 18 or older who typically consumed caffeine at least weekly. Recruitment quotas based on US census data were used to approximate the demographic characteristics (e.g., age, sex, race) of the general US population within the sample. The survey assessed caffeine use, endorsement of DSM-proposed research criteria for CUD, and other health information. Results: Eight percent of the sample (n = 82) fulfilled criteria for CUD, defined as: 1. A persistent desire or unsuccessful efforts to reduce caffeine use (34% prevalence); 2. Continued caffeine use despite a physical or psychological problem exacerbated by caffeine (17%); and 3. Caffeine withdrawal symptoms, or use of caffeine to relieve or avoid withdrawal (26%). Individuals fulfilling CUD criteria reported greater caffeine-related distress (M = 4.8, SD = 2.6; 0-10 scale) relative to the remainder of the sample (M =1.5, SD =2.1, Cohen's d = 1.4), and also reported higher daily caffeine consumption, greater problematic alcohol use, and poorer sleep. Use of combustible tobacco, e-cigarettes, and a history of substance use treatment were more prevalent among those fulfilling CUD criteria. Conclusions: The prevalence of CUD symptoms in the present sample suggests that the proposed diagnostic criteria would identify only a modest percentage of the general population and therefore would not result in overdiagnosis. However, these results also suggest there is a non-negligible subset of caffeine consumers who experience caffeine-related distress.

Willing to present orally: Yes

Financial Support: NIDA grants R01DA003890 and U01DA040219

Name of Sponsor (If you are NOT) a CPDD Member: Roland R. Griffiths

Email Address of Sponsor : rgriff@jhmi.edu

Prefix: Dr.

First Name: Mary

Middle Initial: M.

Last Name: Sweeney

Degrees: MA MD Ph.D etc:: M.S., Ph.D.

Email: marymsweeney@jhmi.edu

Company Affiliation: Johns Hopkins University School of Medicine

Mailing Address: 5510 Nathan Shock Drive

Address 2: Behavioral Pharmacology Research Unit

City: Baltimore

State: MD

Zip/Postal: 21224

Country: United States

Phone: 4105503076

Fax: 4105500030

Membership Year: 2015

Sponsor: Dr. Matthew Johnson, Ph.D.

Research Interests: Behavioral Pharmacology

ID: 178
Pharmacological effects of AMB-FUBINACA (FUB-AMB) and related 'spice' compounds in mice lacking cannabinoid-1 receptor (CB1R) alleles

Michael Baumann, NIDA Intramural Research Program, mbaumann@mail.nih.gov

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Marijuana/Cannabinoids

Topic: Neurobiology

Abstract: AIM Synthetic cannabinoids (SCs), commonly known as “K2” or “spice”, are an evolving class of new psychoactive substances. Here we investigated the pharmacology of AMB-FUBINACA (FUB-AMB) and 5F-AMB, two recently encountered indazole-based SCs responsible for mass intoxications and fatalities. The effects of known cannabinoid-1 receptor (CB1R) agonists AM-2201 and THC were examined for comparison. METHODS Groups of male and female mice with genetic deletion of their CB1R alleles (i.e., CB1R -/- and CB1R +/-), and their C57Bl/6J wild-type (WT) counterparts, received surgically-implanted subcutaneous (s.c.) temperature transponders under isoflurane anesthesia. One week after surgery, mice received s.c. injection of either SCs or vehicle and were subjected to a “triad test” procedure which entailed sequential assessment of: 1] body temperature, 2] catalepsy bar latency and 3] hot-plate analgesia latency at timed intervals over 120 min sessions. RESULTS All SCs induced significant dose- and time-dependent hypothermia, catalepsy, and analgesia in WT mice, which lasted up to 120 min. The rank order of potency was FUB-AMB>5F-AMB=AM-2201>THC. Importantly, ED50 values in the triad test for FUB-AMB (0.09-0.22 mg/kg, s.c.) were at least 50-fold more potent than those for THC (12.72-30.37 mg/kg, s.c.), and SCs were more efficacious than THC. CB1R -/- mice were not affected by any dose of the compounds, whereas CB1R +/- mice displayed responses intermediate between homozygous and WT. In WT brain tissue, IC50 values for inhibition of [3H]SR141716 binding were 1.2, 2.2, 12.6 and 50.6 nM for FUB-AMB, AM-2201, 5F-AMB and Δ9-THC, respectively. CONCLUSIONS Our findings indicate that newer indazole-based SCs exert their effects via potent actions at CB1R and do not support the notion that SCs induce in vivo effects by non-CB receptor mechanisms. Given the widespread abuse of SCs, CB1R antagonists could be made available for overdose reversal, and medical marijuana might be an effecitive agonist medication for dependence on these substances.

Willing to present orally: Yes

Financial Support: This work was generously supported by the Intramural Research Program of NIDA, NIH.

Name of Sponsor (If you are NOT) a CPDD Member: Thomas Prisinzano

Email Address of Sponsor : prisinza@ku.edu

Prefix: Dr.

First Name: Michael

Middle Initial: H

Last Name: Baumann

Degrees: MA MD Ph.D etc:: PhD

Email: mbaumann@mail.nih.gov

CC Email: drbman313@gmail.com

Company Affiliation: NIDA Intramural Research Program

Mailing Address: 333 Cassell Drive, Suite 4400

City: Baltimore

State: MD

Zip/Postal: 21224

Country: United States

Phone: 443 740-2660

ID: 179
Contingency management treatment for methamphetamine use disorder in cape town, south africa

Chukwuemeka Okafor, University of California Los Angeles, cokafor@mednet.ucla.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Other Drug Category: Methamphetamine

Topic: Treatment

Abstract: Aim: South Africa, especially the Western Cape Province, is experiencing an ongoing epidemic of Methamphetamine (MA) Use Disorder. Approaches suited to the South African context that can reduce attrition and boost efficacy of treatment for MA Use Disorder are sorely needed. The goal of this analysis was to assess the efficacy of a contingency management (CM) program to evaluate whether it can improve treatment retention in Cape Town, South Africa. Methods: This study is a secondary analysis of data from a pilot study of an 8-week CM intervention for MA Use Disorder, assessing the neural correlates of abstinence from MA. The primary outcome was number of MA-negative urine samples across the 8-week CM program. Results: The analysis included data from 28 participants (34 ± 6.1 years of age, mean age ± SD), of whom 19 were men. Sixty-eight percent of the sample (n = 19, how many men?) provided ≥23 of 24 possible MA-negative urines over the 8-week CM program and were classified as responders. In bivariable comparisons responders were less likely to report baseline annual income of RAND 25,000+ [~ USD $1,880] compared to non-responders (15.8% vs. 66.7%; p=0.007), and median body mass index (BMI) was significantly lower in responders compared to non-responders (median: 19 vs 24; Kruskal-Wallis $\chi 2$ = 6.84, DF=1, p=0.008). Conclusions: It is encouraging to observe comparable abstinence and treatment-retention outcomes to North America and Europe when using CM to promote MA abstinence in South Africa. Our findings provide initial evidence that CM can be a useful strategy to promote continuous MA abstinence in treatment-seeking adults living in Cape Town South Africa and therefore increase the motivation for additional larger efficacy studies and subsequent expansion of CM for MA Use Disorder.

Willing to present orally: No

Financial Support: Chukwuemeka Okafor is supported by the UCLA Postdoctoral Fellowship Training Program in Global HIV Prevention Research (Currier and Gorbach, PIs). Steve Shoptaw is supported by NIMH P30 058107—CHIPTS UCLA CFAR grant AI028697

Prefix: Dr.

First Name: Chukwuemeka

Last Name: Okafor

Degrees: MA MD Ph.D etc:: PhD, MPH

Email: cokafor@mednet.ucla.edu

Company Affiliation: University of California Los Angeles

Mailing Address: 22640 Garzota Drive

Address 2: Apt 152

City: Los Angeles

State: CA

Zip/Postal: 91350

Country: United States

Phone: 8572253923

Membership Year: 2015

ID: 180
Analyzing optimism and past-30 day opioid misuse among Florida justice-involved children

Micah Johnson, University of Florida, micahjohnson3000@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Adolescent

Other Topic: Juvenile Justice

Abstract: Aim: Adolescents in the criminal justice system, called justice-involved children (JIC), are particularly vulnerable in the modern opioid misuse (OM) epidemic. After released, relapse and overdose occur at higher rates than the general population. Therefore, it is critical to identify the factors that predict initiation among correctional populations. Compelling evidence suggest that optimism may be a key factor that affects adolescent OM initiation. Optimism refers to a disposition that represents the extent to which people have positive, confident expectations about their own future outcomes. There was scarce research that has directly tested the relationship between optimism and OM among adolescents, and less has examined JIC. Methods. The study examines a sample of 79,960 JIC from the Florida Department of Juvenile Justice. Optimism was a categorical measure determined by trained FLDJJ data collectors. Past-30 day opioid misuse data was obtained from official documents, such as urine test results. Multivariate logistic regression was employed, controlling for gender, race, family income, age, history of mental problems, history of depression, and county of residence. Results. More than half of past-30 illicit or nonmedical opioid users had low optimism, compared to 30% in the total sample. Optimism had the highest impact on opioid misuse observed in the data. JIC who reported very low optimism on the final screen were over 9 times more likely report past-six-month OM compared to those with high optimism while adjusting for covariates. Conclusions. Further research is needed to understand the potential for optimism to serve as a protective factor. Optimism can be developed, and therefore can possibly be incorporated to design novel interventions or integrated into empirically validated treatment programs to precipitate uptake.

Willing to present orally: Yes

Financial Support: Financial Support: This research was supported by the University of Florida Substance Abuse Training Center in Public Health from the National Institute of Drug Abuse (NIDA) of the National Institutes of Health under award number T32DA035167 (PI: Dr. Linda B. Cottler). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institute of Health or the Florida Department of Juvenile Justice.

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Linda B. Cottler

Email Address of Sponsor : lbcottler@ufl.edu

Prefix: Dr.

First Name: Micah

Middle Initial: E

Last Name: Johnson

Degrees: MA MD Ph.D etc:: MA, Ph.D

Email: micahjohnson3000@gmail.com

CC Email: micahjohnson3000@gmail.com

Company Affiliation: University of Florida

Mailing Address: 15027 NW 31st Ter

City: Gainesville

State: FL

Zip/Postal: 32609

Country: United States

Phone: 8503213194

Membership Year: 2018

Sponsor: Catherine Striley, PhD

Travel Award: NIDA Diretor's 2018

Research Interests: Behavioral Pharmacology,Epidemiology

ID: 181
Sex differences in driving under the influence of marijuana: The role of medical and recreational marijuana use

Shawnta Lloyd, University of Florida, College of Public Health and Health Professions, shawnta.lloyd@ufl.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Epidemiology

Abstract: Aim: Driving Under the Influence of Marijuana (DUIM) may impair critical abilities necessary for safe driving. This study aims to assess sex heterogeneity in the association between the reason for marijuana use and DUIM. We hypothesized that those who reported any recreational marijuana use would be more likely to DUIM than medical marijuana users and that the strength of this association would vary by sex. Methods: A sample of 8,494 adults, 18 years or older, who reported marijuana use in the past 12-months were analyzed from the 2016 National Survey on Drug Use and Health. Sex-specific multivariable logistic regression models were conducted to investigate the association between the reason for marijuana use (i.e., medical use only, recreational use only, and both medical and recreational use) and past 12-month DUIM while adjusting for relevant covariates. All analyses took into account sampling weights and the complex sample design for variance estimation purposes. Results: Among marijuana users, 8.3% used for medical reasons, 88.0% used for recreational reasons, and 3.7% used for both medical and recreational reasons. Approximately one-third (30.1%) of users reported DUIM; 25.3% of women and 33.5% of men reported DUIM. Among females, recreational only users were almost twice as likely to DUIM compared to medical only users (aOR: 1.90; CI: 1.17-3.10). The reason for marijuana use was not significantly associated with DUIM among males. Conclusions: Female recreational only users were more likely to DUIM than female medical only users; however, females who used both recreationally and medically were as likely to DUIM as female medical only users. Males who reported any recreational marijuana use were as likely to DUIM as males who reported medical use only. This study highlights the need of sex-tailored strategies to decrease the impact of DUIM among the heterogenous cannabis users and society overall.

Willing to present orally: No

Financial Support: This research was supported by the National Institute on Drug Abuse T32 training grant at the UF Substance Abuse Training Center in Public Health from the National Institutes of Health (T32DA035167) and Mentored Research Scientist Development Award (K01DA046715). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Name of Sponsor (If you are NOT) a CPDD Member: Catherine W. Striley

Email Address of Sponsor : cstriley@ufl.edu

Prefix: Ms.

First Name: Shawnta

Middle Initial: L

Last Name: Lloyd

Degrees: MA MD Ph.D etc:: MPH

Email: shawnta.lloyd@ufl.edu

CC Email: shawntalloyd@yahoo.com

Company Affiliation: University of Florida, College of Public Health and Health Professions

Mailing Address: 2004 Mowry Road

Address 2: P.O. Box 100231

City: Gainesville

State: FL

Zip/Postal: 32610

Country: United States

Phone: 352-294-5953

Sponsor: Dr. Catherine W.Striley, PhD

Research Interests: Epidemiology,Psychiatric/Medical Morbidity

Date of Membership: applying for MIT 1.1.19

ID: 182
The influence of long-term cocaine use on cognitive functioning

Charles Clark, Wichita State University, c.brendan.clark@wichita.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Dependence

Abstract: AIM: Although the effects of short-term amphetamine use on cognitive functioning have been well-studied, the effects of long-term use are less well understood. This study aims to examine two factors that have been found to be associated with cognitive impairments: age of first use and duration of use. METHODS: Six hundred seventy-seven individuals under community corrections supervision completed the following assessments included within a larger data set to examine working memory (WAIS-III's digit span subtest), attention (CPT II), intelligence (WTAR's predicted full scale IQ), and general cognitive functioning (Trails B). Other substance use and basic demographic characteristics were also assessed. Pearson correlations were calculated between age of onset of substance use, years of use, and cognitive functioning. A canonical correlation was then conducted using age of onset and years of cocaine use as predictors of the four measures of cognitive impairment. RESULTS: Age of onset ($r = -.183$ to $-.122$, $p < .01$) and duration of cocaine use ($r = -.139$ to $-.017$) have a stronger association with cognitive impairments as compared to age of onset and years of use of alcohol ($r = -.074$ to $-.001$), cannabis ($r = .060$ to $-.001$), and heroin ($r = .124$ to $.014$). The full model was statistically significant with Wilks' l of .907, $F(8, 650) = 4.046$, $p < .001$, and age of first cocaine use ($rs = .709$) was a more salient predictor than years of cocaine use ($rs = .641$). CONCLUSION: Cocaine use appears to be associated with more significant cognitive impairments compared to other substances and age of first cocaine use was the most salient predictor of later impairment.

Willing to present orally: No

Financial Support: R01CA14166305; PI: Cropsey

Name of Sponsor (If you are NOT) a CPDD Member: Karen L. Cropsey

Email Address of Sponsor : kcropsey@uabmc.edu

Prefix: Dr.

First Name: Charles

Last Name: Clark

Degrees: MA MD Ph.D etc:: Ph.D.

Email: c.brendan.clark@wichita.edu

Company Affiliation: Wichita State University

Mailing Address: 9911 E 21st St N

City: Wichita

State: KS

Zip/Postal: 67206

Country: United States

Phone: 3123157454

Biography: c.brendan.clark@wichita.edu

ID: 183
Recovery capital and cocaine use in a diverse community sample

Nathan Smith, University of Florida, nathanrexsmith@ufl.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Cocaine

Topic: Prevention

Abstract: Aims: Cocaine addiction is a significant public health problem causing severe physical, psychiatric and financial consequences for those affected1. Recovery Capital (RC), the resources individuals draw upon to initiate and sustain recovery from addiction, is associated with recovery from many drug use disorders2. RC provides a framework for understanding how social, behavioral, and environmental factors influence recovery3. Methods: Data were collected from HealthStreet, a community outreach initiative at the University of Florida that connects community members with relevant health research studies and needed medical and social services. Community Health Workers meet with community members in public areas like shopping plazas or parks to describe the purpose of HealthStreet and enroll participants5. We stratified the sample into those who have never used cocaine, those who have used in their lifetime but not in the past 30 days, and those who have used in the past 30 days and collected data on economic, educational, social, physical health, and mental health capital. We then used chi-square tests to evaluate the relationship between each aspect of recovery capital and cocaine use in the sample. Results: In the sample of 10,131, 81% have never used cocaine, 17% have used cocaine but not in the past 30 days, and 2% have used in the past 30 days. Significant associations were found for economic (employment and food insecurity), educational (having 12 or more years of education), social (having someone to talk to and feeling satisfied with social support), physical health (having diabetes, heart problems, or sleep problems), and mental health (having anxiety/depression or other mental health conditions) capital. Conclusions: Recovery Capital variables may provide avenues to improve treatment and prevention efforts for cocaine use. Further research should examine the temporal order of the relationship between the variables to identify potential interventions.

Willing to present orally: Yes

Financial Support: Financial Support: This research was supported by the NIDA T32 training grant at the UF Substance Abuse Training Center in Public Health from the National Institutes of Health (T32DA035167). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Name of Sponsor (If you are NOT) a CPDD Member: Linda B. Cottler

Email Address of Sponsor : lbcottler@ufl.edu

Prefix: Mr.

First Name: Nathan

Middle Initial: D L

Last Name: Smith

Degrees: MA MD Ph.D etc:: ALM

Email: nathanrexsmith@ufl.edu

CC Email: nathan.rex.smith@gmail.com

Company Affiliation: University of Florida

Mailing Address: Clinical and Translational Research Building

Address 2: Room 4259

City: Gainesville

State: FL

Zip/Postal: 32610

Country: United States

Phone: 7813152824

ID: 184
Tinkering with THC-to-CBD ratios in marijuana: Modulation of dopamine signaling

Bertha Madras, McLean Hospital and Harvard Medical School , bertha_madras@hms.harvard.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Marijuana/Cannabinoids

Topic: Neurobiology

Abstract: AIM: The marijuana plant produces over 100 different cannabinoids, including the structurally distinct principals, Δ9-tetrahydrocannabinol (THC) and cannabidiol (CBD). THC concentrations in retail marijuana has risen dramatically, while CBD levels declined, with THC:CBD ratios now 8 times higher than before. High concentrations of THC and high ratios of THC:CBD in marijuana are associated with more robust euphoria, anxiety, and psychotic symptoms in otherwise normal people. CBD attenuates THC-induced anxiety, cognitive deficits or psychosis and each cannabinoid engenders different molecular, pharmacological and neuropsychiatric effects. METHODS. Based on reports that chronic marijuana use changes dopamine signaling (implicated in reward, motor function, cognition, psychosis), we investigated whether repeated administration of THC or THC + CBD (1:3 ratio) affects mRNA expression of D1 and D2 dopamine receptors and the dopamine transporter in adult rhesus monkey brain (n=3 per group). RESULTS. THC increased mRNA expression of D1 and D2 dopamine receptors in the prefrontal cortex, but not if combined with CBD. A similar pattern was observed for D1 receptors in the caudate-putamen, as THC increased but CBD+THC suppressed the D1 receptor rise. D2 receptor mRNA was unaffected. In the n. accumbens, THC alone or THC+CBD did not affect either receptor subtype. In cerebellum, D2 receptor mRNA increased after THC, but not after THC+CBD administration. Neither drug regimen affected dopamine transporter mRNA in these brain regions. Other genes and proteins in brain were regulated by THC, and these adaptive changes were attenuated by THC+CBD. CONCLUSION. These and other preliminary findings show that CBD attenuates THC-induced neuroadaptive responses, findings that warrant comparisons of the pharmacological and pathological consequences of high/low THC doses, high/low THC:CBD ratios after long term use, in adolescents and adults. Results may foster creation of guidelines for THC content or THC:CBD ratios in marijuana.

Willing to present orally: Yes

Financial Support: NIDA R01 DA042178

Prefix: Dr.

First Name: Bertha

Middle Initial: K.

Last Name: Madras

Degrees: MA MD Ph.D etc:: Ph.D.

Email: bertha_madras@hms.harvard.edu

CC Email: bmadras@partners.org

Company Affiliation: McLean Hospital and Harvard Medical School

Contact Title: Chair

Mailing Address: 115 Mill Street, Room 315

City: Belmont

State: MA

Zip/Postal: 02478

Country: United States

Phone: (617) 855-2406

Membership Year: 1992

Sponsor: J.V. Brady & J.H. Mendelson

Research Interests: Clinical Drug Development,Neurobiology

ID: 185
Characteristics associated with different sexual orientations in a community corrections population

Charles Clark, Wichita State University, c.brendan.clark@wichita.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Behavior

Abstract: AIM In a study of a community corrections sample including 403 men (386 straight; 17 gay or bisexual) and 199 women (164 straight; 35 gay or bisexual) an analysis was done to see if there would be differences between homosexual or bisexual men and women and straight men and women. METHODS The MINI and Addiction Severity Index were given to assess sexual orientation, drug use, criminal history, and anxiety or depression. Legal and mental history were explored for differences based on sexual orientation. RESULTS For the men, univariate comparisons indicated significant differences between the two groups on the variables anxious/depressed, physical or sexual abuse, and history of committing violent crime. For the women significant differences were found for anxious/depressed, and history of committing violent crime. No significant differences were found for drug use variables or demographics. The results of a logistic regression indicated that gay/bisexual men were more likely to be anxious/depressed (OR = 3.39, p .05.) The logistic regression for women indicated that gay/bisexual women were more likely to be anxious/depressed (OR = 2.62, p

Willing to present orally: No

Financial Support: R01CA14166305; PI: Cropsey

Name of Sponsor (If you are NOT) a CPDD Member: Karen L. Cropsey

Email Address of Sponsor : kcropsey@uabmc.edu

Prefix: Dr.

First Name: Charles

Last Name: Clark

Degrees: MA MD Ph.D etc:: Ph.D.

Email: c.brendan.clark@wichita.edu

Company Affiliation: Wichita State University

Mailing Address: 9911 E 21st St N

City: Wichita

State: KS

Zip/Postal: 67206

Country: United States

Phone: 3123157454

Biography: c.brendan.clark@wichita.edu

ID: 186
Survey of medication assisted treatment side effects among methadone and buprenorphine treated patients

Michael Mancino, University of Arkansas for Medical Sciences, mjmancino@uams.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM: Opioid use disorder (OUD) continues to be a serious public health problem, particularly with the dramatic rise in abuse of prescription opioids (POs). Medication-assisted treatment (MAT) strategies with methadone (MTD) or buprenorphine (BUP) are associated with medication side effects that may not be acceptable long-term among OUD patients; indeed, MAT retention rates tend to be poor for both MTD and BUP. In addition, opioid withdrawal symptoms emerging post-MAT taper may lead to opioid relapse, thus diminishing the likelihood of initiating naltrexone (NTX). Thus, the aim of this survey was to obtain preliminary data on the most bothersome opioid medication side effects as well as opioid withdrawal symptoms among OUD patients receiving MAT with MTD or BUP. METHODS: One hundred three patients receiving MAT (MTD=60; BUP=43) completed a 5-minute survey that included demographics, drug use, treatment history, treatment status, and most bothersome side effects of MAT as well as withdrawal symptoms. RESULTS: Relative to BUP patients, MTD patients were older (p 0.05), with >44% of all respondents rating these at least moderately bothersome. Most opioid withdrawal symptoms (e.g., anxiety, G/I distress, muscle aches) experienced prior to current MAT episode were rated at least moderately bothersome by the majority of respondents. CONCLUSION: These preliminary results suggest that effective treatment strategies targeting the amelioration of opioid-induced side effects may be important to increase long-term acceptability of MAT.

Willing to present orally: Yes

Financial Support: NIDA grant R01DA036544-01A1

Prefix: Dr.

First Name: Michael

Middle Initial: J.

Last Name: Mancino

Degrees: MA MD Ph.D etc:: M.D.

Email: mjmancino@uams.edu

CC Email: adouglass2@uams.edu

Company Affiliation: University of Arkansas for Medical Sciences

Contact Title: Program Director

Mailing Address: 4301 W. Markham Street, #843

City: Little Rock

State: AR

Zip/Postal: 72205

Country: United States

Phone: (501) 526-8400

Fax: (501) 257-3164

Biography: Dr. Mancino graduated medical school from Northeastern Ohio Universities College of Medicine. He trained for several years in neurological surgery and eventually completed his training at UAMS in psychiatry in 2004. He is board certified by the American Board of Psychiatry and Neurology as well as the American Board of Addiction Medicine. He is an associate professor at the UAMS Psychiatric Research Institute and currently the Program Director for the Center for Addiction Services and Treatment. He is also Medical Director of the Recovery Centers of Arkansas. He focuses his clinical practice on medication assisted treatment for opioid use disorders and also treats patients with co-occurring psychiatric and substance use disorders. Dr. Mancino also has an interest in conducting clinical trials for medications development for patients with psychostimulant and opioid addictions and is funded by the National Institute on Drug Abuse (NIDA) on a project designed to improve outcomes for presc

Membership Year: 2006

Sponsor: Drs. Alan Budney, Ph.D. and Alsion Oliveto, Ph.D.

Travel Award: 2008

Research Interests: Behavioral Pharmacology,Treatment

ID: 187
Patterns of prescription opioid use prior to self-reported heroin initiation

Daniel Hartung, Oregon State University / Oregon Health & Science University, hartungd@ohsu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: Aims: Heroin-related deaths have increased five-fold between 2010 and 2017. While more than 80% of people who use heroin report initiating with prescription opioids; opioid utilization patterns preceding heroin initiation have not been described. Our objective was to describe prescription opioid utilization patterns in the six months preceding self-reported heroin initiation. Methods: Using linked data from Oregon's Medicaid, prescription drug monitoring program, and Treatment Episode Data Set (TEDS), we identified patients admitted for treatment for heroin abuse. Using the TEDS data element "age of first use", we estimated the date of first heroin use as the patient's birthday during the year of self-reported initiation. Among individuals with an estimated initiation date between July 1, 2014 and December 31, 2016, we characterized prescription opioid utilization in the 180 days preceding the estimated date of first use. Results: 504 individuals admitted for treatment of heroin use disorder reported initiating heroin during our study period. The mean age was 34 years (SD 11). In the six months prior to initiation, 135 (27%) had one or more prescription opioid fill. Of these, 28 individuals (21%) filled opioid prescriptions at four or more pharmacies or from four or more prescribers. Among these 135 individuals, the average dose was 47 MME per day and 21 (16%) had 90 days or more of continuous use. Of these continuous users, 7 (33%) abruptly discontinued their prescribed opioid prior to self-reported initiation. Conclusions: Although prescription opioid misuse commonly precedes heroin initiation, less than a third of individuals using heroin were prescribed opioids immediately before initiation. Chronic opioid use and discontinuation prior to self-reported heroin initiation was also uncommon.

Willing to present orally: Yes

Financial Support: DHHS – Centers for Disease Control and Prevention U01CE002786

Name of Sponsor (If you are NOT) a CPDD Member: P. Todd Korthuis, MD, MPH

Email Address of Sponsor : korthuis@ohsu.edu

Prefix: Dr.

First Name: Daniel

Middle Initial: M

Last Name: Hartung

Degrees: MA MD Ph.D etc:: PharmD, MPH

Email: hartungd@ohsu.edu

Company Affiliation: Oregon State University / Oregon Health & Science University

Mailing Address: 2730 SW Moody Ave., CL5CP

City: Portland

State: OR

Zip/Postal: 97201-5042

Country: United States

Phone: (503) 494-4720

ID: 188
Exploring the characteristics associated with psychotic disorders in a community corrections setting

Charles Clark, Wichita State University, c.brendan.clark@wichita.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Behavior

Abstract: AIM: The characteristics associated with psychotic disorders have been thoroughly studied in the prison population; however, the research on psychotic disorders in community corrections settings is comparably sparse. The rapid growth of the community corrections population provides opportunities for interventions that promote successful rehabilitation. The current study employed univariate analysis to screen for a multitude of variables potentially associated with the presence of psychotic disorders in a community corrections sample. METHODS: Six hundred and seventy seven individuals under community corrections supervision were administered the MINI and Addiction Severity Index. Individuals meeting criteria for a psychotic disorder were compared to those who did not meet criteria. RESULTS: Univariate comparisons revealed four variables which were positively associated with psychotic disorders, including physical or sexual abuse, cocaine abuse or dependence, suicidal ideation, and age. Logistic regression was used to determine which of the identified variables predicted the presence of a psychotic disorder in the sample ($n = 611$). The odds of having a psychotic disorder were positively related to a history of physical or sexual abuse ($p = 0.019$), meeting criteria for cocaine abuse or dependence ($p = 0.035$), and self-report of suicidal ideation ($p < 0.001$). The odds of having a psychotic disorder were 2.35 times more likely for individuals who reported past physical or sexual abuse and 1.08 more likely for individuals who reported a history of cocaine abuse or dependence. CONCLUSION: Expanding our understanding of the characteristics associated with psychotic disorders among persons who participate in community corrections programs could stimulate the development of practices that target at-risk individuals to reduce their likelihood of recidivism.

Willing to present orally: No

Financial Support: R01CA14166305; PI: Cropsey

Name of Sponsor (If you are NOT) a CPDD Member: Karen L. Cropsey

Email Address of Sponsor : kcropsey@uabmc.edu

Prefix: Dr.

First Name: Charles

Last Name: Clark

Degrees: MA MD Ph.D etc:: Ph.D.

Email: c.brendan.clark@wichita.edu

Company Affiliation: Wichita State University

Mailing Address: 9911 E 21st St N

City: Wichita

State: KS

Zip/Postal: 67206

Country: United States

Phone: 3123157454

Biography: c.brendan.clark@wichita.edu

ID: 189
Long term opioid use trajectories in relation to opioid agonist therapy outcomes among people who use drugs in a Canadian setting: An application of latent class growth analysis

Huiru Dong, British Columbia Centre on Substance Use, huiru.dong@bccsu.ubc.ca

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM: Despite the chronic nature of opioid use disorder, research on opioid use trajectories prior to opioid agonist therapy (OAT) enrollment has been limited. We aimed to characterize longitudinal trajectories of opioid use before initiating OAT and to explore the impact of OAT on opioid use across these pretreatment trajectories. METHODS: Data were derived from three prospective cohort studies involving people who use drugs in Vancouver, Canada, between May 1996 and May 2018. Latent class growth analysis was applied to identify opioid use trajectories based on observations three years before starting OAT. We further used multivariable extended Cox regression to examine whether engaging in OAT was associated with different rates of opioid use cessation among participants with different pretreatment opioid use trajectories. RESULTS: There were 654 participants included in the study. Three opioid use trajectories before starting OAT were identified: persistent users (n=492, 75.2%), intermittent users (n=119, 18.2%), and new users (43, 6.6%). In extended Cox regression, OAT in the last six months was positively associated with opioid use abstinence among persistent users (Adjusted Hazard Ratio [AHR] = 3.38, 95% Confidence Interval [CI]: 2.12 – 5.39) and new users (AHR = 2.71, 95% CI: 1.14 – 6.42). However, the association was not statistically significant among intermittent users (AHR = 1.53, 95% CI: 0.86 – 2.72). Stimulant use, cannabis use, drug dealing, sex work involvement, and incarceration were negatively associated with opioid use abstinence. In sub-analysis examining time to cessation from daily opioid use, OAT was associated with a higher rate of cessation among both persistent users and intermittent users. CONCLUSION: We identified three distinct pretreatment opioid use trajectories, which are likely to influence the treatment outcomes. Research is required to determine if tailored strategies specific to people with different pretreatment opioid use patterns increase the benefits of OAT.

Willing to present orally: Yes

Financial Support: This work was supported by the US National Institutes of Health (U01DA038886, R01DA021525). Huiru Dong is supported through a Canadian Institutes of Health Research (CIHR) Doctoral Award. Dr. Thomas Kerr is supported by a foundation grant from the CIHR (20R74326). Dr. Evan Wood receives support through a Tier 1 Canada Research Chair in Inner City Medicine and the CIHR Canadian Research Initiative on Substance Misuse (SMN–139148). Dr. Kanna Hayashi is supported by a CIHR New Investigator Award (MSH-141971), a Michael Smith Foundation for Health Research (MSFHR) Scholar Award, and the St. Paul's Foundation. Dr. Kora DeBeck is supported by a MSFHR/ St. Paul's Hospital Foundation-Providence Health Care Career Scholar Award and a CIHR New Investigator Award. Dr. M-J Milloy is supported in part by the United States National Institutes of Health (R01DA021525), a New Investigator Award from the CIHR, and a Scholar Award from the

MSFHR. His institution has received an unstructured gift to support his research from NG Biomed, Ltd., an applicant to the Canadian federal government for a license to produce medical cannabis. Funding sources had no role in the design of this study; collection, analysis, and interpretation of the data; writing of the report; or the decision to submit the paper for publication.

Name of Sponsor (If you are NOT) a CPDD Member: Evan Wood

Email Address of Sponsor : bccsu-ew@bccsu.ubc.ca

Prefix: Mrs.

First Name: Huiru

Last Name: Dong

Degrees: MA MD Ph.D etc:: MSc

Email: huiru.dong@bccsu.ubc.ca

Company Affiliation: British Columbia Centre on Substance Use

Mailing Address: 608-1081 Burrard Street

City: Vancouver

State: BC

Zip/Postal: V6Z1Y6

Country: Canada

Phone: 160468223446 X 2444

ID: 190
An exploratory study of parents' experiences using medical cannabis for their children

Jennie Ryan, University of Michigan, jennieer@umich.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Alternative Medicine

Abstract: Aim: This study was an exploration of pediatric (0-18 years old) medical cannabis use. Using a case-study design, the aim was to describe the experiences of families using medical cannabis for relief of seizures in their child or dependent. Theoretical Frameworks: Two theoretical frameworks guided this study, Goffman's theory of Stigmatization and Parker's theory of the Normalization of Drug Use. Medical cannabis users often internalize feelings of stigma, notwithstanding the normalizing social trends. Medical cannabis is in the process of normalization and is being brought into the mainstream by changing state legality and acceptance by health care professionals and academic centers. Methods: A case study design was used to examine the multi-faceted experiences of parents using medical cannabis for management of their child's epilepsy. Multiple primary and secondary data sources were used. Latent content analysis was performed to allow for data reduction and the identification of patterns and themes. Sources of data: Primary sources included 2 face-to-face interviews and 17 anonymous online surveys. Secondary sources included Facebook narratives, direct observation experiences at cannabis advocacy centers, newspaper and magazine articles, and government documents. Findings: Comprehensive analysis of all data sources revealed seven themes including 'Discovery of Cannabis as a Medication', 'Guidance on Dosing', 'Costs and Benefits of Cannabis, 'Distrust of the Pharmaceutical Industry', 'Federal Interference', 'God and Cannabis, and 'Changing Societal Perceptions about Medical Cannabis'. The most prevalent themes were guidance on dosing, costs and benefits of cannabis, and federal interference. Conclusion: Themes that emerged revealed a complex and multi-faceted experience. Parents administering medical cannabis to their child often do so with limited guidance from health care professionals. Many parents report benefit from medical cannabis for their child, and are not hindered by the financial costs or uncertainties. Political and social influences have significant impact on the stigmatization and normalization of cannabis. Supported: T32 NR016914 training program.

Willing to present orally: Yes

Financial Support: Funded by T32 NR 016914 training program

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Carol J. Boyd

Email Address of Sponsor : caroboyd@med.umich.edu

Prefix: Dr.

First Name: Jennie

Middle Initial: E

Last Name: Ryan

Degrees: MA MD Ph.D etc:: PhD, CPNP-AC

Email: jennieer@umich.edu

CC Email: jennie.ry@gmail.com

Company Affiliation: University of Michigan

Mailing Address: 322 N. State St

Address 2: Apt 100

City: Ann Arbor

State: Michigan

Zip/Postal: 48104

Country: United States

Phone: 2672596964

ID: 191
Are acute effects more extreme with higher-potency cannabis? A within-person comparison of marijuana and butane hash oil

Sarah Okey, Arizona State University , sarahokey@asu.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Other

Other Topic: subjective acute effects

Abstract: Aim: Cannabis concentrates, which contain ultra-high levels of THC, are quickly gaining popularity. Some evidence suggests that concentrates produce greater intoxication and more severe negative effects than marijuana. This is the second extant study to compare the subjective effects of concentrates and marijuana. Methods: Past-year cannabis users (n=1,268) were recruited online to complete a questionnaire about the subjective effects of cannabis. Participants who reported past-year use of both concentrates and marijuana (n=574) rated the acute effects of each type of cannabis in the following domains: positive affect, negative affect, cognitive impairment, physiological effects, reduced consciousness, and psychotic-like experiences. Response options ranged from 0 (not at all/never) to 10 (extremely/always). Results: Within-person comparisons of the acute effects of concentrates and marijuana revealed that concentrates were rated as producing less positive effects (concentrates: M=4.28, SD=2.19; marijuana: M=5.14, SD=1.80; paired t(558)=-13.21,p.01). Conclusions: Like the previous study, concentrates were rated as producing less positive effects than marijuana. Unlike the previous study, concentrates were generally rated as producing less negative effects than marijuana, though negative effects were rare for either type of cannabis. Research is needed to understand if and how the subjective effects differ for concentrates and marijuana, because this may help to explain why users use each type of cannabis.

Willing to present orally: Yes

Financial Support: Supported by lab funds

Prefix: Ms.

First Name: Sarah

Last Name: Okey

Email: sarahokey@asu.edu

Company Affiliation: Arizona State University

Mailing Address: 886 North Cofco Center Court

Address 2: Unit 1036

City: Phoenix

State: AZ

Zip/Postal: 85008

Country: United States

Phone: 3308440573

ID: 192
Contrasting trajectories of injection methamphetamine and cocaine use in a Canadian setting between 2008-2017

Paxton Bach, BC Centre on Substance Use, paxbach@gmail.com

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Epidemiology

Abstract: Aim: Crystal methamphetamine use is associated with a wide array of physical and social harms. Despite this, the prevalence of methamphetamine injection is rising, while a decrease in cocaine injection has been reported in some settings. We sought to characterize local prevalence data on injection stimulant use, and demonstrate a hypothesized relationship between the use of these substances over time. Methods: We analysed data from two community-recruited prospective cohorts of people who use drugs in Vancouver, Canada, between 2008-2017. We applied a time series analysis, using linear regression to detect potential relationships between self-reported methamphetamine and cocaine injection and year. Cross-correlation was used to evaluate the correlation between the trajectories of both substances over time. In each analysis we controlled for covariates including sociodemographic factors and drug use behaviours. Results: A total of 1967 participants were included in this study. Overall, 888 (45%) ever reported recent injection methamphetamine use, and 1143 (58%) ever reported recent injection cocaine use. The prevalence of each substance was associated with time, with methamphetamine injection increasing over the duration of the study (OR = 1.24 per month, 95% CI = 1.21 – 1.27) and cocaine injection decreasing (OR = 0.85 per month, 95% CI = 0.83 – 0.88). Multivariable regression showed that recent methamphetamine injection was negatively associated with recent cocaine injection (adjusted OR = 0.59, 95% CI = 0.51 – 0.68). By cross-correlation an increase in injection methamphetamine use was associated with a decrease in the likelihood of cocaine injection 12 months later (p = 0.008). Conclusions: These findings demonstrate an epidemiological shift in patterns of stimulant use, with a rise in methamphetamine injection associated with a corresponding decrease in cocaine injection. Given the severe harms associated with methamphetamine use, the development of strategies to help treat and reduce harm among this growing population is urgently required.

Willing to present orally: Yes

Financial Support: This study was supported by the US National Institutes of Health (U01-DA038886, U01-DA0251525) and the Canadian Institutes of Health Research (MOP–286532).

Prefix: Dr.

First Name: Paxton

Last Name: Bach

Degrees: MA MD Ph.D etc:: MSc, MD

Email: paxbach@gmail.com

Company Affiliation: BC Centre on Substance Use

Mailing Address: #315, 428 W 8th Ave

City: Vancouver

State: BC

Zip/Postal: V5Y1N9

Country: Canada

Phone: 604-652-9979

Fax: 604-398-4219

Membership Year: 2018

Sponsor: Dr. Evan Wood, MD,PhD

Research Interests: Epidemiology,Treatment

ID: 193
Electroretinogram (ERG) as a novel biomarker for dopamine release: comparing healthy controls and cigarette smokers

Tao Lin, Teachers College Columbia University, tl2791@tc.columbia.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Neurobiology

Abstract: AIM Patients with substance use disorders show great heterogeneity in their response to treatment: a successful treatment strategy often only works on a subset of patients. Individual level variations in dopamine neurotransmission may be one factor: existing data from Positron Emission Tomography have shown that treatment response to Contingency Management may be related to the capacity for the brain to release dopamine in the striatum. This study aims to develop a new strategy to assess for the release of dopamine in the central nervous system using a biomarker electroretinogram (ERG). METHODS We measured the dark-adapted and light-adapted ERG signals using a standard protocol, and administered 60mg oral methylphenidate, and measured the same ERG signals after the medication. RESULTS We conducted the study in healthy controls (N = 9) and smokers (N = 4). Overall, there is a significant difference in alpha wave in the dark condition (Delta A = -36.34 uV) but not in the light condition. There is a significant difference in beta wave in the dark condition (Delta B = 43.94 uV) but not in the light condition. A multivariate analysis shows that the alpha signal is related to before and after methylphenidate, smoking status, and age, but not to gender, and beta signal is related to before and after methylphenidate, but not to smoking status, gender, or age. CONCLUSION Electroretinogram signals may be affected by the exogenous administration of a psychostimulant. This signal may reflect the capacity for the brain to release dopamine and may be used as a predictive biomarker.

Willing to present orally: Yes

Financial Support: This research is in part supported by NIDA grant 5K23DA042136.

Name of Sponsor (If you are NOT) a CPDD Member: Edward V. Nunes

Email Address of Sponsor : Edward.Nunes@nyspi.columbia.edu

Prefix: Mr.

First Name: Tao

Last Name: Lin

Email: tl2791@tc.columbia.edu

CC Email: xsl2101@cumc.columbia.edu

Company Affiliation: Teachers College Columbia University

Mailing Address: 305 W 150th ST APT 203

City: New York

State: New York

Zip/Postal: 10039

Country: United States

Phone: 5185228552

ID: 194
Wearable sensor-based detection of stress and craving in patients during treatment for substance use disorder

Stephanie Carreiro, University of Massachusetts, stephanie.carreiro@umassmemorial.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Technology Issues

Abstract: Aim: Stress and craving are neurobehavioral phenomena that are linked to return to substance use during recovery and represent opportunities for real-time intervention. This study aims to evaluate the accuracy and acceptability of a wearable sensor objectively detect stress and substance craving during recovery from substance use disorder (SUD). Methods: Participants in recovery from SUD wore a wrist-mounted sensor for a 4-day period and annotated episodes of stress and craving. Twenty-three supervised machine learning algorithms we applied to sensor data to classify 3 conditions (craving vs stress vs none-reported), and were compared based on area under curve (AUC) for Receiver Operator Characteristic (ROC) curves and accuracy. Semi-structured interviews were performed to evaluate acceptability and barriers/facilitators of engagement for wearable sensor-based monitoring and content analysis was performed to identify key themes. Results: Thirty individuals completed the protocol. A total of 41 craving and 104 stress events were recorded and analyzed. A quadratic discriminant model-based analysis performed best to classify craving vs non-craving states (accuracy = 80.5%, AUC = 0.73). A quadratic support machine vector-based model performed best to classify stress vs non-stress state (accuracy = 83%, AUC = 0.55) and craving vs stress (accuracy= 72%, AUC = 0.7). Misclassification occurred more frequently when participants simultaneously reported craving and stress together. Overall participant perception was positive, and acceptability was high. Emergent themes included a perception of connectedness and increased mindfulness related to wearing the sensor, both of which were reported as helpful to recovery. Barriers to engagement included interference with other daily wear items, and perceived stigma. Conclusion: Wearables can be used to objectively classify episodes of craving and stress, and individuals in recovery from SUD are accepting of a continuous monitoring protocol using these devices. Classification of craving was more accurate than stress. Further research is needed to refine algorithms and to integrate them into interventions to prevent return to substance use.

Willing to present orally: Yes

Financial Support: This study was funded by a grant from RAE Health, LLC

Name of Sponsor (If you are NOT) a CPDD Member: Scott Lukas, PHD

Email Address of Sponsor : slukas@mclean.harvard.edu

Prefix: Dr.

First Name: Stephanie

Last Name: Carreiro

Degrees: MA MD Ph.D etc:: MD

Email: stephanie.carreiro@umassmemorial.org

Company Affiliation: University of Massachusetts

Mailing Address: 55 Lake Avenue North

Address 2: Department of Emergency Medicine

City: Worcester

State: MA

Zip/Postal: 01655

Country: United States

Phone: 508-421-1400

Fax: 15084211457

ID: 195
Known and unknown exposure to fentanyl and the associated risks among people who inject drugs in Vancouver, Canada

Kanna Hayashi, Simon Fraser University, bccsu-kh@bccsu.ubc.ca

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Behavior

Abstract: Aim: Illicitly-manufactured fentanyl continues to contaminate the illicit drug markets and fuel the opioid overdose crisis in North America. However, little is known about the extent to which individuals knowingly consume fentanyl. Therefore, we compared self-reported exposure to fentanyl among people who inject drugs (PWID) in Vancouver, Canada with results obtained via a urine drug screen that detects recent fentanyl exposure. Methods: Data on PWID were derived from three prospective cohorts of community-recruited people who use drugs in Vancouver between 2016 and 2017. Multivariable logistic regression was used to identify demographic, behavioral and social-structural factors associated with known exposure (i.e., UDS positive for fentanyl and self-reporting fentanyl exposure in the past 3 days) and unknown exposure to fentanyl (i.e., UDS positive for fentanyl and self-reporting no fentanyl exposure in the past 3 days), respectively, compared against no fentanyl exposure. Results: Among 592 PWID, 298 (50.3%) tested positive for fentanyl, including 143 (24.1%) reporting known and 155 (26.2%) reporting unknown exposure to fentanyl. In multivariable analyses, accessing opioid agonist therapy, using supervised injection sites, and possessing Naloxone were all positively associated with both known and unknown exposure to fentanyl (all $p < 0$ .05). Non-fatal overdose (Adjusted Odds Ratio [AOR]: 1.90; 95% Confidence Interval [CI]: 1.08 - 3.36) and injecting drugs alone (AOR: 3.26; 95% CI: 1.72 – 6.21) in the past 6 months were positively associated with known exposure, but not with unknown exposure. Conclusion: We found a high prevalence of fentanyl exposure among our sample of PWID, with a half of those exposed to fentanyl unknowingly consuming fentanyl. While PWID exposed to fentanyl appeared more likely to utilize some key overdose prevention services, those who were aware of fentanyl exposure were more likely to inject drugs alone and report a recent non-fatal overdose. Additional and targeted overdose prevention efforts are needed for this sub-population of PWID.

Willing to present orally: Yes

Financial Support: The study was supported by the US National Institutes of Health (NIH) (U01DA038886, U01DA021525). This research was undertaken, in part, thanks to funding from the Canada Research Chairs program through a Tier 1 Canada Research Chair in Inner City Medicine which supports Dr. EW, and the Canadian Institutes of Health Research (CIHR) Canadian Research Initiative on Substance Misuse (SMN–139148). Dr. KH is supported by a CIHR New Investigator Award (MSH-141971), a Michael Smith Foundation for Health Research (MSFHR) Scholar Award, and the St. Paul's Foundation. Dr. MJM is supported by a CIHR New Investigator Award, a MSFHR Scholar Award and the US NIH (U01DA021525). His institution has received an unstructured gift from NG Biomed, Ltd., to support him. KD is supported by a MSFHR/ St. Paul's Hospital Foundation– Providence Health Care Career Scholar Award and a CIHR New Investigator Award. SN is supported by a MSFHR award.

Name of Sponsor (If you are NOT) a CPDD Member: Evan Wood

Email Address of Sponsor : evan.wood@bccsu.ubc.ca

Prefix: Dr.

First Name: Kanna

Last Name: Hayashi

Degrees: MA MD Ph.D etc:: PhD

Email: bccsu-kh@bccsu.ubc.ca

CC Email: kanna_hayashi@sfu.ca

Company Affiliation: Simon Fraser University

Mailing Address: 400-1045 Howe Street

City: Vancouver

State: British Columbia

Zip/Postal: V6Z 2A9

Country: Canada

Phone: (778) 945-7616

ID: 196
High prevalence of hypocapnia among healthy cigarette smokers

Annie Umbricht, Johns Hopkins University School of Medicine, annieumbricht@jhu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Treatment

Abstract: Anxiety is more prevalent among smokers than the general population and is a predictor of smoking initiation, maintenance and failure to quit. Anxiety is associated with hyperventilation and lower end-tidal CO2 (EtCO2). Hypocapnia (EtCO2 ≤ 35 mmHg), a marker of hyperventilation, predicts treatment resistance and drop-out in anxiety disorders. The EtCO2 of healthy smokers is not known. Aim This study aims to measure EtCO2 in healthy smokers (10 cigarettes per day (CPD), CO ≥ 8 ppm) during orthostatic blood pressure assessment and to explore the correlation between EtCO2 and responses on psychological questionnaires and other participant characteristics. Methods: 46 smokers completed questionnaires assessing smoking behaviors, smoking-related expectancies, anxiety, distress tolerance, and general health. EtCO2 (Capnostream 20p™), orthostatic blood pressure, body mass index, forced expiratory volume in one second (FEV1), and urine toxicology results were recorded. Analysis: Bivariate associations were analyzed with Pearson's correlation coefficient and point-biserial correlations. Results Participants were 43% males, 50% white, age (mean ± SD) 43 ± 12 years old, smoked 15 ± 9 CPD, with a Fagerstrom score of 4.8 ± 2.1. Sitting mean EtCO2 was 34.6 ± 3.8 mmHg, and 63% were hypocapnic. As predicted, a significant, negative linear association was observed between anxiety and EtCO2 [r(46)=-.30, p=.04]; higher scores on the Anxiety Sensitivity Index were associated with significantly lower EtCO2 values. Similarly, smokers with lower ability to tolerate distress tended to have lower EtCO2 values [r(46)=.27, p=.07]. Those who were more likely to endorse smoking as a means to attenuate negative affect [r(46)=-.34, p=.02] had lower EtCO2, lending support for the theorized link between hyperventilation, anxiety, and difficulty in emotion regulation. Conclusion A majority of healthy smokers breathe in the hypocapnic range, a sign of hyperventilation. Hypocapnia could be a marker of anxiety, distress intolerance and resistance to quit smoking. Breathing training should be investigated for smoking cessation.

Willing to present orally: Yes

Financial Support: Internal funding

Prefix: Dr.

First Name: Annie

Last Name: Umbricht

Degrees: MA MD Ph.D etc:: MD

Email: annieumbricht@jhu.edu

Company Affiliation: Johns Hopkins University School of Medicine

Mailing Address: Behavioral Pharmacology Research Unit

Address 2: 5510 Nathan Shock Drive

City: Baltimore

State: MD

Zip/Postal: 21224

Country: United States

Phone: 4105501917

Membership Year: 1999

Sponsor: Kenzie L. Preston & George E. Bigelow

Research Interests: Behavioral Pharmacology,Pharmacology

Date of Membership: Travel award 1992

ID: 197
Increasing minority participation and diversity in CPDD and ACNP meetings and membership: 2019 status and recommendations

Jack Henningfield, Pinney Associates, Inc., jhenning@pinneyassociates.com

---

Abstract Category: Theoretical/Commentary

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: All drugs of potential abuse and in development for CNS disorders

Topic: Other

Other Topic: Increasing Diversity in meetings and membership

Abstract: AIM Accelerate progress in increasing minority participation in CPDD and ACNP meetings and membership. METHODS Current data on diversity of meeting participation (CPDD) and membership (ACNP) will be presented. This will include 2016 and 2018 expert surveys of CPDD's URPop and ACNP's URM experts on barriers to participation and potential new approaches. RESULTS There is widespread agreement that increasing the diversity of CPDD and ACNP is important from a societal perspective and will increase the excellence, relevance, and process of research. Less than 1/3 of CPDD meeting participants typically complete the post survey and apparent discrepancies suggest these data may not accurately characterize diversity of participation. ACNP collects limited racial/ethnic diversity membership data which limits the ability to identify barriers or guide interventions. The 2016, expert poll identified several barriers including financial hurdles to membership in ACNP but this has not been examined for CPDD. Discussions among experts generally support enhanced data collection that would be more scientifically valid and comprehensive. There is also support for expanding the range of assessed categories of diversity in order to be more inclusive of current CPDD and ACNP participation as well as more reflective of categories of diversity at the societal level that are important in research and policy concerning health care disparities, hate crimes, vulnerability to substance use, and discrimination. CONCLUSION Findings support further development of epidemiologically sound approaches to more accurately and inclusively characterize the diversity of CPDD and ACNP, and factors that influence diversity to provide a better evidence-based foundation for developing interventions to increase diversity and evaluate their impact.

Willing to present orally: No

Financial Support: Dr. Henningfield's efforts are supported by PinneyAssociates without input from or connection to any other commercial sponsor as part of PinneyAssociates efforts to support the advancement of science and public health.

Prefix: Dr.

First Name: Jack

Middle Initial: E.

Last Name: Henningfield

Degrees: MA MD Ph.D etc:: Ph.D.

Email: jhenning@pinneyassociates.com

CC Email: jhenning@pinneyassociates.com

Company Affiliation: Pinney Associates, Inc.

Contact Title: Vice-President Research and Health Policy

Mailing Address: 4800 Montgomery Ln Ste 400

City: Bethesda

State: MD

Zip/Postal: 20814

Country: United States

Phone: (301) 718-8440

Fax: (301) 718-0034

Membership Year: 1992

Distinguished Service Award: 2010

Research Interests: Behavioral Pharmacology,Treatment

ID: 198
The Hospitalist Role to Engage Patients with Opioid Use Disorder in Treatment

Susan Calcaterra, University of Colorado, susan.calcaterra@ucdenver.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Behavior

Abstract: AIM Individuals with opioid use disorder (OUD) have high hospitalization rates which presents an opportunity to initiate OUD treatment in the hospital. Hospitalists care for most hospitalized patients in the United States (US), yet little is known about their practices and beliefs regarding OUD treatment. We hypothesized that OUD treatment varies widely among hospitalists, however, with sufficient support and training, hospitalists would routinely initiate medications for OUD and link patients to addiction treatment. METHODS From October through November 2018, we conducted an anonymous online survey of academic hospitalists across the US. We identified a convenience sample of Hospital Medicine Division Chiefs and requested they email the survey to their hospitalist peer networks using a snowball sampling technique. The survey queried three domains: current OUD treatment practices, perceptions and beliefs about treating patients with OUD, and hospital processes for OUD management. We rated responses on a 4-part Likert scale or true/false and report descriptive statistics. Response rates are unknown due to snowball sampling techniques with online surveys. RESULTS Among 275 respondents, 258 completed the survey. Many respondents lived in the West (n=116, 50%) and practiced ≤ 5 years (n=114, 49%). Of the respondents, 81% (n=212) reported they "always/often" cared for patients with OUD, however 50% (n=129) "rarely/never" screened for OUD. Hospitalists reported feeling "very/somewhat unsure" using DSM-5 criteria to diagnose OUD (64%, n=166) and 89% (n=230) "rarely/never" initiated buprenorphine for OUD. Many hospitalists "strongly/somewhat agree" they have skills to screen, diagnose and refer patients to treatment (n=162, 64%). Hospitalists reported insufficient ancillary support to arrange treatment referrals (n=155, 65%) or addiction specialty support to assist with medication initiation (n=100, 43%), but would routinely screen (n=140, 91%), refer to treatment, and prescribe medications for OUD (n=80, 87%) with increased support. CONCLUSION Hospitalists could reduce the OUD treatment gap with increased ancillary and addiction specialty support.

Willing to present orally: Yes

Financial Support: Research in Addiction Medicine Scholars (RAMS) program funded by NIDA grant R25DA033211

Prefix: Dr.

First Name: Susan

Middle Initial: L

Last Name: Calcaterra

Degrees: MA MD Ph.D etc:: MD, MPH, MS

Email: susan.calcaterra@ucdenver.edu

CC Email: susan.calcaterra@ucdenver.edu

Company Affiliation: University of Colorado

Mailing Address: 1216 Race Street

City: Aurora

State: CO

Zip/Postal: 80206

Country: United States

Phone: 2487035947

Membership Year: 2018

Sponsor: Dr. Christian Hopfer, MD

Research Interests: Epidemiology,Health Services

ID: 199
Shifts in the neurobiological mechanisms motivating cocaine use with the development of an addicted phenotype

Tanseli Nesil, University of Virginia, tn2u@virginia.edu

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Stimulants

Topic: Neurobiology

Abstract: AIM: The development of cocaine addiction is accompanied by a shift in the mechanisms motivating drug use from nucleus accumbens (NAc) dopamine (DA) D1 receptor (D1R) signaling to glutamate AMPA-kainate receptor (AMPA-R) signaling. It is not yet known whether a similar shift also occurs for DA signaling via D2Rs or whether shifts in the NAc represents a general change in the mechanisms motivating cocaine use. METHODS: To address these questions, we compared the effect of NAc D2R antagonism (eticlopride; 0-3.0 μg/side) and systemic D1R (SCH-23390; 0-1.0 mg/kg), D2R (eticlopride; 0-0.1 mg/kg), and AMPA-R (CNQX; 0-1.5 mg/kg) antagonism on motivation for cocaine (as assessed under a progressive-ratio schedule) between male rats tested under conditions that induce a non-addicted (short-access; 20 infusions/day) versus an addicted phenotype (extended-access; 24-hr; 96 infusions/day). RESULTS: As predicted, the extended-access group showed a blunted response to the low dose eticlopride (0.3-μg/side); however, each eticlopride dose decreased motivation for cocaine in both groups indicating that while the role of NAc D2Rs becomes diminished with the development of an addicted phenotype, they are still involved. As expected, systemic AMPA-R antagonism decreased motivation for cocaine in the extended-access group, but had no effect in the short-access group; surprisingly, the effects of systemic D1R and D2R antagonism were more pronounced in extended- versus short-access group. CONCLUSION: These differences between site-specific and systemic administration and following short- versus extended-access self-administration strongly indicate the need for the use of animal models that induce an addicted phenotype for studies examining mechanistic changes and potential treatments for addiction.

Willing to present orally: Yes

Financial Support: R01DA024716 (WJL)

Name of Sponsor (If you are NOT) a CPDD Member: Wendy J. Lynch

Email Address of Sponsor : wjl6w@virginia.edu

Prefix: Dr.

First Name: Tanseli

Last Name: Nesil

Degrees: MA MD Ph.D etc:: Ph.D

Email: tn2u@virginia.edu

CC Email: tn2u@virginia.edu

Company Affiliation: University of Virginia

Mailing Address: 450 Ray C Hunt Drive

City: Charlottesville

State: VA

Zip/Postal: 22903

Country: United States

Phone: 4342825359

ID: 200
Prescription opioid misuse among U.S. Hispanics

Manuel Cano, Boston College, manuel.cano@bc.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Ethnic Differences

Abstract: AIM As a risk factor for addiction, overdose, and transition to heroin use, prescription opioid misuse represents an issue with critical public health implications. To date, relatively little attention has been devoted to examining within-group variations in opioid misuse among ethnic minorities. This study examined prescription opioid misuse among U.S. Hispanics in a nationally-representative sample, with attention to within-group variation. The study tested a hypothesized relationship between immigrant-assimilation characteristics and past-year prescription opioid misuse among U.S. Hispanics. METHODS The study analyzed data of 7,037 Hispanic adults from the National Epidemiologic Survey on Alcohol and Related Conditions-III (NESARC-III, 2012-2013). Binomial logistic regression models examined the association of assimilation-related characteristics and past-year prescription opioid misuse. Assimilation-related characteristics included scores on the Spanish and English domains of the Bidimensional Acculturation Scale, and number of years lived in the United States (applicable for first-generation Hispanics only). Adjusted odds ratios (AOR) and 95% confidence intervals (CI) were computed for past-year prescription opioid misuse. RESULTS The predicted odds of past-year prescription opioid misuse were significantly higher for second (AOR 2.07; 95% CI, 1.28-3.36), third (AOR, 3.40; 95% CI, 2.07-5.56), and greater-than-third (AOR, 3.30; 95% CI, 2.05-5.31) generation Hispanics, compared to first-generation Hispanics. All assimilation-related characteristics were significantly associated with increased odds of past-year prescription opioid misuse among U.S. Hispanics. CONCLUSION Findings are consistent with prior research documenting an association between assimilation to the U.S. and negative outcomes for Hispanic health. As the demographic composition of the United States continues to shift, and the number of Hispanic immigrants and children of immigrants continues to rise in the United States, understanding opioid misuse among this population will become an increasingly crucial element in efforts to halt the opioid epidemic in the country as a whole.

Willing to present orally: No

Financial Support: None

Prefix: Mr.

First Name: Manuel

Last Name: Cano

Degrees: MA MD Ph.D etc:: MSW

Email: manuel.cano@bc.edu

CC Email: camm777@gmail.com

Company Affiliation: Boston College

Mailing Address: 140 Commonwealth Ave

Address 2: McGuin Hall

City: Chestnut Hill

State: MA

Zip/Postal: 02467

Country: United States

Phone: 4805600371

Membership Year: 2018

Sponsor: Dr. Danielle Ompad, PhD

Research Interests: Epidemiology,Prevention

Date of Membership: 11.16.18 approved

ID: 201
Adverse childhood experiences, impulsivity, and e-cigarette use during the transition to adulthood

Sunny Shin, Virginia Commonwealth University, sshin@vcu.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Behavior

Other Topic: Adverse childhood experiences

Abstract: AIM E-cigarette use among young people is highly prevalent. Individuals exposed to adverse childhood experiences such as childhood maltreatment (CM) may be at a particular risk, as CM has been linked to nicotine dependence. Studies testing the association between CM and e-cigarette use are lacking, including research that examines pathways linking CM to e-cigarette use. We examined the relationship between CM and e-cigarette use and explored the potential roles of impulsivity in linking CM to e-cigarette use. METHODS Young adults (N = 208; ages 18-21) were recruited from the community, and participated in an hour-long structured interview. Using structural equation modeling, the direct associations between CM and both lifetime and current e-cigarette use were initially examined. Next, four related, but different impulsivities (i.e., negative urgency, premeditation, perseverance, sensation seeking) were added as mediators of the relationships between CM and e-cigarette use, controlling for age, gender, and race/ethnicity. RESULTS CM was significantly associated with lifetime e-cigarette use (β=0.19, p = 0.02). After inclusion of impulsivity to the models, CM was associated with negative urgency (β=0.40, p p = 0.04) and sensation seeking (β=0.27, p = 0.004) were significantly related to lifetime e-cigarette use. Further, negative urgency fully mediated the relationship between CM and lifetime e-cigarette use (β=0.11, p = 0.04). Both CM and impulsivity were not significantly related to current e-cigarette use. CONCLUSION Our results suggest that young adults with a history of CM might be vulnerable to e-cigarette use and that negative urgency played a significant role in linking CM to lifetime e-cigarette use. Traits of impulsivity would be potentially useful targets to prevent e-cigarette use among young people who have been exposed to CM.

Willing to present orally: Yes

Financial Support: This research was supported by the Virginia Foundation for Healthy Youth to Sunny Shin (PI)

Name of Sponsor (If you are NOT) a CPDD Member: Gerry Moeller

Email Address of Sponsor : frederick.moeller@vcuhealth.org

Prefix: Dr.

First Name: Sunny

Last Name: Shin

Degrees: MA MD Ph.D etc:: Ph.D

Email: sshin@vcu.edu

CC Email: hshinhshin@gmail.com

Company Affiliation: Virginia Commonwealth University

Mailing Address: 1000 Floyd Ave., Third Floor

City: Richmond

State: VA

Zip/Postal: 23284-2027

Country: United States

Phone: 8048274342

Sponsor: Dr. Robert Blalster and Dr. Federick Moeller

Research Interests: Epidemiology,Prevention

Date of Membership: applying for Reg. 1.1.19

ID: 202
When agony fuels ecstasy: Cocaine patients carrying a genetic variant linked to over-response of the stress (cortisol) system demonstrate heightened limbic brain response to appetitive drug cues

Anna Childress, University of Pennsylvania Perelman School of Medicine, childres@pennmedicine.upenn.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Genetics

Other Topic: Imaging

Abstract: AIM: Intriguingly, the stress and reward systems in our brains are “hotwired” -- such that (behavioral or pharmacologic) activation of the stress circuitry (“agony”) can boost the taking (“ecstasy”), and cue-triggered seeking, of drug rewards. We wondered whether genetics known to increase stress (cortisol) reactivity might also be reflected in stronger cue-triggered limbic brain responses, a relapse-relevant phenotype in addiction. To test this, we compared cocaine cue-triggered limbic activation in cocaine patients with, and without, a genetic vulnerability linked to higher response of the cortisol stress system (i.e., the minor allele of rs3800373, for the FKBP5 gene). METHODS: Using event-related BOLD fMRI, we scanned stabilized, treatment-seeking cocaine inpatients during quasi-random presentations of 500 msec evocative (cocaine, aversive, sexual) and comparator (neutral) cues, 48 presentations per cue category. We analyzed (SPM 8) pre-planned contrasts, comparing carriers of the minor vulnerability allele (TG, GG; n=11, ongoing) for rs3800373 of FKBP5, vs. TT homozygotes (n=7, ongoing) carrying the major allele. Our anatomical focus was nodes of the mesolimbic dopamine system, a critical substrate for drug reward and drug cues. RESULTS: Consistent with our hypothesis, cocaine patients with a genetic variant (TG,GG) linked to greater stress (cortisol) responding demonstrated a dramatic brain response to cocaine cues in multiple nodes of the mesolimbic system, including the striatum, pallidum, amygdala, insula, hypothalamus, and midbrain (parametric T maps thresholded 2

Willing to present orally: Yes

Financial Support: Financial Support: Commonwealth of Pennsylvania CURE Addiction Center of Excellence: Brain Mechanisms of Relapse and Recovery (Childress); NIDA U54 DA039002 Cocaine Cooperative Medication Development Center (Kampman, Center PI; Childress, PI Imaging Project); NIDA R01DA039215 (Childress, PI).

Prefix: Dr.

First Name: Anna

Middle Initial: Rose

Last Name: Childress

Degrees: MA MD Ph.D etc:: Ph.D.

Email: childres@pennmedicine.upenn.edu

CC Email: childres@pennmedicine.upenn.edu

Company Affiliation: University of Pennsylvania Perelman School of Medicine

Mailing Address: 3535 Market Street

Address 2: Suite 500

City: Philadelphia

State: PA

Zip/Postal: 19104

Country: United States

Phone: 2157460222

Fax: 215-746-7350

Membership Year: 1996

Sponsor: Dr. Charles P. O'Brien & Dr. George E. Woody

ID: 203
Tobacco use in a binational sample of Latino community health center (CHC) patients

Lillian Gelberg, University of California, Department of Family Medicine, lgelberg@mednet.ucla.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Epidemiology

Abstract: AIM: Tobacco use is a large contributor to preventable death both in the US and Mexico. We examined rates and correlates of tobacco use among a bi-national sample of Latino primary care patients in CHCs near the US-Mexico border (East Los Angeles and Tijuana). METHODS: In 2013, 6660 adult patients in 8 clinic waiting rooms anonymously self-administered a computerized version of the WHO ASSIST. RESULTS: Mean age 41.8 years; 97% Latino, 27% male; 65% Mexico clinics; 35% US clinics. US had higher rates of tobacco use than Mexico in lifetime (52% vs 47%), past 3 months (21% vs 14%), weekly to daily use (10% vs 8%) (p

Willing to present orally: Yes

Financial Support: "US-Mexico Binational Quit Using Drugs Intervention Trial" was funded by NIDA (3P30DA027828-02S1; P30DA027828-02S2) and the US State Department's Bureau of International Narcotics and Law Enforcement (INL) (SMX53012-GR186)

Prefix: Dr.

First Name: Lillian

Last Name: Gelberg

Degrees: MA MD Ph.D etc:: M.D., M.S.P.H.

Email: lgelberg@mednet.ucla.edu

CC Email: MGironRico@mednet.ucla.edu

Company Affiliation: University of California, Department of Family Medicine

Mailing Address: 10880 Wilshire Blvd., Suite 1800

City: Los Angeles

State: CA

Zip/Postal: 90095-7087

Country: United States

Phone: (310) 794-6092

Fax: (310) 794-6097

Membership Year: 2009

Sponsor: Jeffrey Samet and Christine Grella

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 204
Non-medical use of codeine products in Canada

Beth Sproule, Centre for Addiction and Mental Health, beth_sproule@camh.net

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: AIM: Codeine is one of the most commonly dispensed opioids in Canada. Low dose codeine combination products are available without a prescription, although the value of this has been questioned. Little is known about the non-medical use of codeine in Canada. This report provides regional prevalence and characteristics of non-medical use of prescription and non-prescription codeine products in Canada. METHODS: The Survey of Non-Medical Use of Prescription Drugs Program is a cross-sectional online survey of the general adult population in Canada. Data for 10,007 respondents were collected during 3rd quarter 2017, and weighted to provide national prevalence estimates. Non-medical use (NMU) was defined as use of codeine for any reason other than what was recommended by their doctor/dentist/pharmacist/packet insert or without a doctor's prescription for prescription products. RESULTS: It is estimated that 6.8 million adult Canadians (22.4%; 95% Confidence Interval (CI): 21.5%-23.4%) had non-medically used a codeine product in their lifetime. Proportions of non-medical users by region ranged from 4.5% (CI: 3.7%-5.4%) in Atlantic provinces to 34.7% (CI: 32.8%-36.7%) in Québec. Non-medical codeine users had a median age of 47.3 years (IQR 31.4-59.8) and were 51.9% male (CI: 49.6%-54.2%). A large proportion of non-medical users reported using non-prescription codeine products non-medically (66.1%; CI: 63.9%-68.3%), and for many they were the only codeine products endorsed (40.1%; CI: 37.9%-42.4%). Most reported non-medical use to treat pain, with higher rates for non-prescription products (91.8%;CI:90.2%-93.3%) than prescription products (81.3%;CI:78.9%-83.7%). Of those using for pain, a considerable proportion reported product tampering (e.g., 20.9% chewing; CI:18.9%-23.0%), with only a small proportion injecting (4.2%;CI:2.7%-5.7% prescription products; 1.7%;CI:0.8%-2.6% non-prescription products). CONCLUSION: Non-medical use of codeine products is prevalent in Canada with regional differences noted. A substantial proportion of non-medical use involved low dose codeine non-prescription products, which helps inform the risk profile associated with these products.

Willing to present orally: Yes

Financial Support: This abstract is independently funded by the RADARS System. The RADARS System is the property of Denver Health and Hospital Authority, a political subdivision of the State of Colorado, USA. The RADARS System is supported by subscriptions from pharmaceutical manufacturers, government, and non-government agencies to provide independent surveillance, research, and reporting services. Subscribers do not participate in data collection or analysis, nor do they have access to the raw data. No subscriber was involved in the conception or drafting of this abstract.

Prefix: Ms.

First Name: Beth

Middle Initial: A

Last Name: Sproule

Degrees: MA MD Ph.D etc:: PharmD

Email: beth_sproule@camh.net

CC Email: beth.sproule@utoronto.ca

Company Affiliation: Centre for Addiction and Mental Health

Mailing Address: 1001 Queen Street West

City: Toronto

State: ON

Zip/Postal: M6J 1H1

Country: Canada

Phone: 4165358501x36501

Membership Year: 2005

Sponsor: Drs. Edwarrd Sellers and Usoa Busto

Research Interests: Pharmacology Psychiatric/Medical Morbidity

ID: 205
Pain as an emerging risk factor for non-medical cannabis use and cannabis use disorders in US adults: 2001-2002 and 2012-2013

Deborah Hasin, Columbia University, deborah.hasin@gmail.com

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Epidemiology

Abstract: OBJECTIVE: Pain is common among adults. Changing marijuana laws and increasingly positive views of cannabis, including as a substitute for opioids, may have made pain a risk factor for non-medical cannabis use (NMCU) and cannabis use disorder (CUD). We examined the association of pain with any NMCU, frequent NMCU, and CUD in two US national surveys conducted ~10 years apart, and whether the strength of the associations differed between the surveys. METHODS: Two US national surveys, NESARC (2001-2002) and NESARC-III (2012-2013) provided the data. Any past-year NMCU (defined to respondents as without a prescription, or other than prescribed, e.g., to get high), frequent NMCU (³3 times a week) and DSM-IV CUD (abuse/dependence) were assessed. Pain was indicated with a SF-12v2 item on pain interference with daily activities (moderately, quite a bit or extremely=yes). Covariate-adjusted regression analysis modeled the cannabis outcomes as a function of pain, survey, and pain*survey interaction; difference-in-difference tests indicated if the associations of pain with each cannabis outcome differed between the surveys. RESULTS: The prevalence of pain was 19.3% and 20.0% in NESARC and NESARC-III. The prevalence of any NMCU, frequent NMCU and DSM-IV CUD was 4.1%, 1.2%, 1.5% in NESARC, and 9.5%, 3.7%, and 2.9% in NESARC-III. Pain was associated with any NMCU in both surveys; with a significantly stronger association in NESARC-III (p=0.01). Pain was not significantly associated with frequent NMCU or CUD in NESARC, but significantly associated with frequent NMCU (p=.0007) and CUD (p=.0009) in NESARC-III. The between-survey changes in pain associations with NMCU and CUD were significant (p=0.005; p=0.023). CONCLUSIONS: Pain has become a risk factor for frequent non-medical cannabis use and cannabis use disorder, a possible drawback to cannabis as a substitute for opioids in pain treatment. Educating medical providers, patients and the public may be needed to reduce this risk.

Willing to present orally: Yes

Financial Support: R01DA034244, New York State Psychiatric Institute

Prefix: Dr.

First Name: Deborah

Last Name: Hasin

Degrees: MA MD Ph.D etc:: Ph.D.

Email: deborah.hasin@gmail.com

CC Email: leeora.kidron@nyspi.columbia.edu

Company Affiliation: Columbia University

Mailing Address: 1051 Riverside Drive

Address 2: #123

City: New York

State: NY

Zip/Postal: 10032

Country: United States

Phone: 6467747909

Membership Year: 2006

Sponsor: Drs. George Woody, MD and Herbert Kleber, MD

ID: 206
Uptake of new hepatitis C treatments among patients in opioid substitution therapy

Inmaculada Rivas Puy, Salut Mental i Addiccions Badalona Serveis Assistencials (BSA), irivas@bsa.cat

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Other Topic: Hepatitis C virus

Abstract: Aim:Direct Acting Antivirals (DAAs) are recommended for the treatment of HCV infection in persons treated with Opioid Substitution Therapy (OST). We aimed to assess HCV infection, liver damage and treatment rates in Badalona, Spain. Methods: cross-sectional study between October 2015 and November 2017 among patients attending the OST program. Substance use characteristics, assessment of HCV, HIV infections, and serum markers of liver fibrosis (FIB-4, APRI, Forns) were assessed. HCV-RNA, genotype, liver fibrosis stage and history of HCV treatment were recorded. Logistic regression models were used to analyze predictors of treatment with DAAs. Results: 501 patients (81% H), 33 years-old [Interquartile range (IQR): 28-39 years] at baseline; 65% had a history of injection drug use. Prevalence of HCV (EIA+) 67% (336/501). Forty seven per cent (160/336) of those with HCV infection were HIV-positive. Among patients with HCV (EIA+) infection, current prevalence of alcohol, cannabis and/or cocaine use 47%, 41% y 32%, respectively. Advanced liver fibrosis according to FIB-4, APRI and Forns indices was detected in 15%, 16% and 22% of cases, respectively. Prevalence of spontaneous HCV viral clearance was 10%. As of April 2018, 41% (128/310) of HCV-positive patients were treated: 55% (70/128) with DAAs and 45% (58/128) with Interferon/ Ribavirin regimens, 96% of patients under DAAs achieved sustained virological response. Patients treated for HCV infection tend to be older ($p < 0.001$), HIV-positive ($p < 0.001$) and to report less use of substances ($p = 0.002$) with respect to those not treated. In multivariate analysis, HCV/HIVco-infected patients were 2.3 times more likely to receive HCV-treatment with DAAs (OR = 2.3, 95% CI: 1.1-5.0) with respect to HCVmono-infected patients. Furthermore, current substance use was associated with not receiving HCV treatment (OR = 0.4, 95% CI: 0.2-0.9) Conclusion: treatment rates in HCVmono-infected patients continue to be low after 3 years of DAAtreatment and scaling-up

Willing to present orally: No

Financial Support: No

Name of Sponsor (If you are NOT) a CPDD Member: Rafael De La Torre Fornell

Email Address of Sponsor : rtorre@imim.es

Prefix: Dr.

First Name: Inmaculada

Last Name: Rivas Puy

Degrees: MA MD Ph.D etc:: Ph

Email: irivas@bsa.cat

Company Affiliation: Salut Mental i Addiccions Badalona Serveis Assistencials (BSA)

Mailing Address: C/Termes Romanes nº 12

City: Badalona

State: SP

Zip/Postal: 08911

Country: Spain

Phone: 0034689171583

ID: 207
Molecular changes associated with extinction training for cocaine relapse prevention in rats: Role of environmental enrichment and extinction context

Kathleen Kantak, Boston University, kkantak@bu.edu

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Stimulants

Topic: Neurobiology

Abstract: AIM Extinction (EXT) training reduces responses to drug cues, but lacks efficacy for drug relapse prevention possibly due to context dependency of EXT learning. Recently, we showed that brief interventions of environmental enrichment (EE) facilitated cocaine-cue EXT and inhibited reacquisition of cocaine self-administration in rats when all study phases occurred in the same drug-paired environment. Here, we hypothesized that EE would overcome the context-dependency of EXT learning, potentially having clinical utility. To complement the behavioral investigation, we determined molecular correlates of our therapeutic strategy. METHODS Rats were trained to self-administer 0.3 mg/kg cocaine under a second-order schedule, then underwent weekly cocaine-cue extinction and daily self-administration reacquisition sessions as previously described (Gauthier et al., 2017). Group 1 underwent all three phases in the same drug-paired environment without EE (AAA+NoEE, n=10). Group 2 was treated identically, but received EE during EXT (AAA+EE, n=8). Group 3 underwent self-administration and reacquisition in context A, but received EXT in a novel environment with EE (ABA+EE, n=8). We probed for several memory-relevant markers associated with receptors for glutamate and BDNF (GluA1, GluA1-pSer845, GluA2, TrkB, TrkB-pTyr816) in target brain regions (vmPFC, dHC, NAc, BLA) following the last reacquisition session. RESULTS EE facilitated EXT regardless of context ($p < 0$ .05). However, combining EE with EXT inhibited cocaine relapse only in animals receiving EXT in context A ($p < 0$ .05). EE was associated with significant increases ($p < 0$ .05) in NAc GluA2, dHC TrkB and vmPFC TrkB-pTyr816. Of these, the change in vmPFC was specific to the AAA+EE group, mirroring outcomes of cocaine reacquisition tests. CONCLUSION Contrary to our hypothesis, the therapeutic effectiveness of EE does not eliminate the context dependency of EXT learning for cocaine relapse prevention. This may be related to changes in TrkB signaling in vmPFC that occur after extinction in the drug-taking context but not in a novel context.

Willing to present orally: Yes

Financial Support: DA043454 and Internal Funds

Prefix: Dr.

First Name: Kathleen

Middle Initial: M.

Last Name: Kantak

Degrees: MA MD Ph.D etc:: Ph.D.

Email: kkantak@bu.edu

Company Affiliation: Boston University

Contact Title: Professor

Mailing Address: 64 Cummington Mall

Address 2: Department of Psychologial & Brain Sciences

City: Boston

State: MA

Zip/Postal: 02215

Country: United States

Phone: (617) 353-9201

Fax: (617) 353-2894

Membership Year: 1996

Sponsor: Roger Spealman & Sari Izenwasser

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 208
Urine drug screen trajectory as a universal outcome predictor: Overcoming limitations of logistic regression as a canonical technique for binary outcome modeling

Jocelyn Jin, Columbia University, yj2465@columbia.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Other

Other Topic: Statistical Modeling for Prediction

Abstract: AIM Urine drug screen (UDS) is a ubiquitous longitudinal individual level data stream and outcome measure in clinical studies of substance use disorders. Our goal is to examine systematically the methodological challenges of using UDS to create individual level predictive models for treatment outcome and develop statiscial methods with better performance. METHODS Leveraging simulation and a publicly available dataset from a large randomized clinical trial in opioid use disorder, we constructed a portfolio of predictive models, specifically to address four challenges intrinsic to UDS data: 1) treatment of missing values; 2) sequences and timing of the appearance of positive tests; 3) multi-level binary longitudinal data from multi-substance UDS panels. We used cross-validated Receiver Operating Curve (ROC) as a measure of model performance. RESULTS We benchmarked our analyses based on a linear logistic regression model using first four weeks of a six months randomized clinical trial (N = 1134). Coding missing values as either as positive or a separate level did not appear to affect predictive performance (Area Under the Curve AUC = 74% vs. 75%). Incorporating week-by-week interactions did not significantly enhance predictive performance (AUC = 75%). However, penalized regression via LASSO generated a small performance gain when all substances were included (AUC = 76%). CONCLUSION Simple logistic regression using only binary UDS for a single substance of abuse captures a significant degree of individual level predictive information. Variable selection techniques may enhance predictive performance for analyses of multi-substance panel UDS data.

Willing to present orally: Yes

Financial Support: This research is in part supported by NIDA grant 5K23DA042136.

Name of Sponsor (If you are NOT) a CPDD Member: Edward V. Nunes

Email Address of Sponsor : Edward.Nunes@nyspi.columbia.edu

Prefix: Ms.

First Name: Jocelyn

Middle Initial: Y

Last Name: Jin

Degrees: MA MD Ph.D etc:: MA

Email: yj2465@columbia.edu

CC Email: jocelynyingjin@outlook.com

Company Affiliation: Columbia University

Mailing Address: 243 W 109TH ST APT 2R

City: New York

State: NY

Zip/Postal: 10025

Country: United States

Phone: 347-276-6489

ID: 209
Prior adversity is associated with a heightened limbic response to aversive cues in patients with opioid, cannabis, and cocaine use disorders

Paul Regier, University of Pennsylvania, pregier@pennmedicine.upenn.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Other Drug Category: Cocaine, Marijuana

Topic: Imaging

Other Topic: Adversity

Abstract: AIM: Prior adversity is overrepresented in substance use disorders (SUDs) and is related to problems of cognition and behavior. Previously, we reported that cocaine patients who endorsed prior adversity (vs. those who did not) had a heightened mesolimbic response to drug (and other evocative) cues. Since elevated cue-reactivity is linked to increased drug use, our aim was to test the generalization of this finding to other addictions (opioid and cannabis). METHODS: Opioid (n=31), cannabis (n=35), and cocaine (n=25) patients who participated in a BOLD fMRI cue task that included 500 msec sexual, aversive, drug and neutral cues were included in this secondary analysis. Patients were divided into two groups: those with or without prior adversity (emotional, physical, and/or sexual abuse). Two-sample t-tests (SPM12, parametric t-maps) evaluated differences between the groups on brain response to 500 msec evocative [drug, sexual, aversive (-neutral)] cues in mesolimbic (subcortical) and modulatory (cortical) regions of interest. RESULTS: Forty percent of patients (Opioid: 9/31; Cannabis: 15/35; Cocaine: 11/23) reported prior adversity. Patients who endorsed prior adversity (vs. those who did not) had a significantly higher amygdala, ventral tegmental area, and hippocampus response to aversive cues (p 100) but a lower dorsolateral prefrontal cortex (dlPFC) response to drug cues (p 100). CONSLUSION: We found that the association of adversity and heightened limbic response to aversive (but not drug or sex) cues previously found in cocaine patients generalized to other addictions. Patients who reported prior adversity (vs. those who did not) had a higher limbic response to aversive cues but lower dlPFC response to drug cues. Results suggest that individuals with both SUD and prior adversity may represent an adversity-driven, cue-vulnerable phenotype, possibly reflected by a disrupted "top-down" regulation of drug-related cues and heightened "bottom-up" activation to aversive cues.

Willing to present orally: Yes

Financial Support: R01DA039215-03 (PI: Anna Rose Childress) U54DA039002-04 (PI: Kyle Kampman)

Name of Sponsor (If you are NOT) a CPDD Member: Anna Rose Childress (NOTE: I have submitted my application for member-in-training)

Email Address of Sponsor : childres@pennmedicine.upenn.edu

Prefix: Dr.

First Name: Paul

Middle Initial: S.

Last Name: Regier

Degrees: MA MD Ph.D etc:: PhD

Email: pregier@pennmedicine.upenn.edu

Company Affiliation: University of Pennsylvania

Mailing Address: 3535 Market Street

City: Philadelphia

State: PA

Zip/Postal: 19104

Country: United States

Phone: 215-746-3706

Sponsor: Dr. Anna Rose Childress, PhD

Research Interests: Neurobiology,Treatment

Date of Membership: applying for MIT 1.1.19

ID: 210
Pills, pills, everywhere: Opioid and buprenorphine prescribing trends in rural, economically distressed, and urban regions of Kentucky

Kirsten Smith, University of Louisville, kirstenelin.smith@louisville.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: Aim: Beginning in 2000, opioid prescribing in Kentucky proliferated, particularly in rural, economically distressed counties, contributing to an increase in the diversion and use of prescription opioids, opioid substitutes (e.g., buprenorphine), and heroin. The aim of this study was to understand 2013-2017 changes in opioid and buprenorphine prescribing in Kentucky, a state ranking 5th nationally for opioid-related overdose fatalities, in relation to county-level indicators of economic distress. It was expected that rural, economically distressed regions would have high rates of opioid prescribing, but lack access to needed prescription buprenorphine at comparable rates. Methods: Using Kentucky All Schedule Prescription Electronic Reporting system data, Wilcoxon-Mann-Whitney tests were used to examine significant differences in prescribing rates by urban and rural locality for 120 counties. Percent change formulas, likelihood ratio tests, and geospatial mapping were additionally utilized. Results: Per 1,000 adult rates of opioid prescriptions decreased 14.8% in rural counties, compared to a smaller decrease of 13.9% in urban counties between 2013-2017. However, rural counties still had statistically significant higher opioid prescribing rates than urban counties (p

Willing to present orally: No

Financial Support: None.

Name of Sponsor (If you are NOT) a CPDD Member: N/A

Email Address of Sponsor : N/A

Prefix: Ms.

First Name: Kirsten

Middle Initial: E

Last Name: Smith

Email: kirstenelin.smith@louisville.edu

Company Affiliation: University of Louisville

Mailing Address: 799 Rose Lane

City: Versailles

State: KY

Zip/Postal: 40383

Country: United States

Phone: 8594752021

Biography: Doctoral candidate, research assistant

Membership Year: 2018

Sponsor: Dr. Michele Staton, PhD

Travel Award: 2018

Research Interests: Epidemiology,Treatment

ID: 211
Buprenorphine use and misuse among those with opioid use disorders with and without recent treatment

Angela DeVeaugh-Geiss, Indivior, Inc., angela.deveaugh-geiss@indivior.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: AIM To understand buprenorphine use among those with opioid use disorders (heroin/prescription opioids) and determine whether the extent of buprenorphine misuse varies by recent treatment for opioid problems. METHODS Using data from the 2016 National Survey on Drug Use and Health, past-year prevalence of buprenorphine use (use only vs. misuse) was estimated among those with past-year heroin use disorder (HUD) or prescription opioid use disorder (RxOUD), stratified by recent (defined as last/current in past year) treatment for heroin or prescription opioids. RESULTS Two-thirds (68.6%) of individuals with HUD reported past-year buprenorphine use, with slightly more reporting misuse (55.1%) vs. use (44.9%), compared to 32.5% of those with RxOUD reporting buprenorphine use, with nearly twice as much misuse (65.1%) versus use (34.9%). Most individuals with HUD used buprenorphine, regardless of whether they were recently treated for heroin use (77.0% vs. 62.2% for treated versus untreated, respectively). However, individuals with HUD who were recently treated were less likely to misuse (49.1%) than those who were not treated (60.7%). In contrast, buprenorphine use was more than twice as likely among individuals with RxOUD who were recently treated for opioids vs. those who were not (61.0% vs. 26.6%, respectively), though in both groups, approximately two thirds reported misuse (61.7% and 66.7%, respectively). CONCLUSION There was a high prevalence of buprenorphine use among those with HUD and much of this use included misuse, particularly among those not recently treated. Buprenorphine use was less prevalent among individuals with RxOUD, and nearly two-thirds reported buprenorphine misuse regardless of recent treatment. Though many individuals with HUD and RxOUD are using buprenorphine with a prescription, there remains substantial buprenorphine misuse, i.e., diverted buprenorphine or prescribed buprenorphine not used as directed by a physician, which may reflect barriers to access through legitimate treatment programs or providers.

Willing to present orally: Yes

Financial Support: Indivior Inc.

Name of Sponsor (If you are NOT) a CPDD Member: Howard Chilcoat

Email Address of Sponsor : howard.chilcoat@indivior.com

Prefix: Dr.

First Name: Angela

Middle Initial: M

Last Name: DeVeaugh-Geiss

Degrees: MA MD Ph.D etc:: PhD, MS

Email: angela.deveaugh-geiss@indivior.com

CC Email: angela@mykolab.com

Company Affiliation: Indivior, Inc.

Mailing Address: 10710 Midlothian Turnpike

Address 2: Suite 430

City: North Chesterfield

State: VA

Zip/Postal: 23235

Country: United States

Phone: 9196191607

ID: 212
Predictors of success in pregnant women receiving medication treatment for opioid use disorder

Cara Struble, Wayne State University, fv8376@wayne.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Dependence

Other Topic: Perinatal

Abstract: AIM: Pregnant women with opioid use disorder (OUD) are at increased risk for numerous medical complications. Although medication treatment (MT) is the standard of care for pregnant women with OUD, little is known about factors impacting treatment success for pregnant women receiving MT. The current ongoing study is examining characteristics that might predict continuing opioid use during pregnancy in a sample of women receiving methadone. METHODS: To date, 22 pregnant women enrolled in this study (mean age=30.53 years) have received MT in our metro-Detroit clinic and given birth. At baseline, women provide demographic and drug use information. Depression (BDI), opioid craving (DDQ), resiliency (BRS), therapy expectations (PATHEV) and social support are assessed at baseline and weekly throughout treatment. Preliminary analysis used simple linear regression to examine baseline factors predicting the proportion of opioid-positive urine drug screens during pregnancy. Final analyses will examine how weekly changes in depression, resiliency and social support affect both maternal and infant outcomes at delivery. RESULTS: Findings reveal that number of weeks pregnant at treatment initiation, age of heroin initiation, resiliency (BRS), and confidence in treatment expectancies (PATHEV) predicted the proportion of opioid-positive urine drug screens during pregnancy, $F(4,10)= 5.66$, $p = .031$, $R2 = .79$. Later heroin initiation ($\beta = .82$, $p = .017$) and lower resiliency ($\beta = -.69$, $p = .024$) were significant predictors of greater opioid use in the model. CONCLUSION: Initial findings suggest that women who started heroin use at later ages and have lower levels of resiliency may be a particularly vulnerable group that could benefit from additional treatment support and services. Increasing our understanding of factors impacting success for pregnant women in MT is extremely important; uncovering these factors would allow clinicians to identify potentially vulnerable individuals, provide insight into relevant treatment targets, and improve treatment outcomes for these women and their infants.

Willing to present orally: No

Financial Support: Department of Psychiatry and Behavioral Neurosciences, Wayne State University School of Medicine, Detroit, MI

Name of Sponsor (If you are NOT) a CPDD Member: Leslie Lundahl

Email Address of Sponsor : llundahl@med.wayne.edu

Prefix: Ms.

First Name: Cara

Middle Initial: A

Last Name: Struble

Degrees: MA MD Ph.D etc:: MA

Email: fv8376@wayne.edu

CC Email: caraanns513@gmail.com

Company Affiliation: Wayne State University

Mailing Address: 1 Lafayette Plaisance Street

Address 2: APT 1607

City: Detroit

State: MI

Zip/Postal: 48207

Country: United States

Phone: 9736176957

ID: 213
Primary care provider attitudes toward substance use: Results of the Substance Abuse Attitudes Survey (SAAS) among urban public hospital primary care physicians

Jennifer McNeely, New York University School of Medicine, jennifer.mcneely@nyumc.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Treatment

Abstract: AIM: The under-treatment of alcohol and drug use in primary care settings has been attributed, in part, to negative attitudes toward substance use among physicians. Thus, in conducting an efficacy study of technology-assisted screening and brief intervention (SBI) for drug use, we assessed substance use attitudes among participating primary care providers (PCPs). METHODS: A total of 26 PCPs were recruited from adult primary care (N=19) and HIV (N=7) clinics of two urban public hospitals; one declined. Eligible PCPs were currently practicing faculty physicians. All PCPs self-completed the Substance Abuse Attitude Survey (SAAS) on paper, at baseline. The SAAS is a validated 50-item survey that collects responses to statements about alcohol and drug use on a 5-point Likert-type scale. Using a previously established 3-factor solution (Jenkins, 1990), items were grouped into categories of 'stereotypes/moralism'; 'treatment views'; and 'permissiveness' and assigned scores corresponding to positive/neutral/negative attitudes toward substance use. RESULTS: Participants were 61.5% female, and had an average of 10.8 years in practice (SD=8.4, range=2-33). 24.0% reported high satisfaction treating patients with drug problems (48.0% moderate/some satisfaction, 28.0% low satisfaction). On the SAAS, 78.73% disagreed with stereotyping or moralizing statements, and 78.67% held positive attitudes regarding substance use treatment. For the permissiveness category, which captures attitudes toward policy, safety, and social norms, 48.85% agreed with permissive statements, 35.77% disagreed, and 15.38% were neutral. CONCLUSION: Overall, PCPs did not endorse stereotyped or moralistic statements, were positive about treatment, and reported mixed attitudes regarding permissiveness. Responses to permissiveness items reflect diverse attitudes toward drug laws/legalization and health risks of recreational use. Limitations include outdated language in the SAAS, potential social desirability bias, and restriction to PCPs who volunteered for a SBI study. At study end, we will examine the association between attitudes and SBI adoption, and assess for changes in SAAS scores following participation.

Willing to present orally: Yes

Financial Support: NIDA R34DA040830

Name of Sponsor (If you are NOT) a CPDD Member: Joshua Lee

Email Address of Sponsor : joshua.lee@nyulangone.org

Prefix: Dr.

First Name: Jennifer

Last Name: McNeely

Degrees: MA MD Ph.D etc:: MD,MS

Email: jennifer.mcneely@nyumc.org

Company Affiliation: New York University School of Medicine

Mailing Address: 180 Madison Ave., 17th floor

City: New York

State: NY

Zip/Postal: 10016

Country: United States

Phone: 212-263-4975

ID: 214
A stable heroin hapten (6-AmHap) vaccine formulation slated for a phase 1 clinical trial induces long duration antibody titers that block the antinociceptive effects of heroin and other opioids

Gary Matyas, Walter Reed Army Institute of Research, gmatyas@hivresearch.org

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aims: We have recently described a novel heroin hapten, 6-AmHap, when conjugated to tetanus toxoid (TT), and mixed with Army Liposome Formulation (ALF) as an adjuvant, induced protective efficacy against heroin challenge of immunized mice and rats. (Sulima et al., J. Med Chem 2018). Protective efficacy was observed against both subcutaneous (SC) and intravenous (IV) challenges. Vaccine-induced antibodies bound to heroin, its degradation products and cross-reacted with other opioids. The aim of this study was to determine the duration of the protective efficacy of the vaccine. Methods: 6-AmHap was conjugated to TT, mixed with ALF and aluminum hydroxide. Rats and mice were immunized 4 times. The sera was tested for antibody titer by ELISA and affinity to heroin, its metabolites and other opioids. Efficacy against heroin or other opioid repeat-dose challenges was assessed using antinociception assays. Results: The vaccine elicited IgG levels to 6-AmHap of ~1.2 mg/mL that persisted over a year in both rats and mice. The 6-AmHap vaccine prevented heroin-induced antinociception following repeated IV heroin challenges over a year in immunized rats. The rats typically had a 0% maximum possible effect (MPE) from multiple doses and reached 100% MPE with one more dose. The mean heroin dose needed to reach 100% MPE in the thermal place preference assay was 4 mg/kg and the tail immersion (TI) assay was 2 mg/kg. Using equilibrium dialysis with UPLC-MS/MS quantification, the Kd values of the antibodies to 6-acetylmorphine ranged from 0.1-0.9 nM. The average EC50 for SC challenge of the immunized mice was 1.7, 1.0 and 7.7 mg/kg for heroin, hydromorphone and hydrocodone, respectively in the (TI) assay. Conclusions: 6-AmHap is a promising candidate heroin/opioid vaccine that induced high titer and high affinity antibodies that persisted for over a year. It is currently being transitioned to Phase 1/2a clinical trial to determine safety and efficacy.

Willing to present orally: Yes

Financial Support: The work of AS, AEJ, and KCR was supported by the NIH Intramural Research Programs of the National Institute on Drug Abuse and the National Institute of Alcohol Abuse and Alcoholism, The work of GRM, OBT, CW, and ZB was supported through a Cooperative Agreement Award (no. W81XWH-07-2-067) between the Henry M. Jackson Foundation for the Advancement of Military Medicine and the U.S. Army Medical Research and Materiel Command (MRMC). The work was partially supported by an Avant Garde award to GRM from NIDA (NIH grant no. 1DP1DA034787-01) and UG3/UH3 grant 1UG3DA048351-01.

Name of Sponsor (If you are NOT) a CPDD Member: Kenner Rice

Email Address of Sponsor : kennerr@nida.nih.gov

Prefix: Dr.

First Name: Gary

Last Name: Matyas

Degrees: MA MD Ph.D etc:: Ph.D.

Email: gmatyas@hivresearch.org

CC Email: tsingleton@hivresearch.org

Company Affiliation: Walter Reed Army Institute of Research

Mailing Address: 503 Robert Grant Avenue

City: Silver Spring

State: MD

Zip/Postal: 20910

Country: United States

Phone: 3013199973

ID: 215
Naltrexone as a novel treatment strategy for nitrous oxide use disorder

Sarah Ickowicz, University of British Columbia, sarahickowicz@gmail.com

---

Abstract Category: Theoretical/Commentary

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Inhalants

Topic: Treatment

Abstract: AIM: Using a clinical case example, we describe and discuss the use of oral naltrexone as a novel treatment strategy for nitrous oxide use disorder. To our knowledge, use of naltrexone for craving reduction in nitrous oxide use disorder has not been previously described. BACKGROUND: Nitrous oxide is an inhalant drug of abuse that is readily available and legally obtained. Though frequency of reported cases of nitrous oxide use disorder is low, previous case reports have described severe neurological and psychiatric harms associated with chronic use. Despite this, evidence for pharmacotherapy is currently lacking. Preliminary evidence from rodent studies demonstrates nitrous oxide to exert its analgesic effect in part through endogenous opiate release in the brainstem, an effect that is likely mediated by kappa opiate receptors. Notably, the kappa opiate receptor has been previously implicated in a number of animal models of addiction. Clinical studies have shown variable efficacy for naltrexone across a number of substances including alcohol, nicotine, and stimulants. CASE DESCRIPTION: We present here a case of a 41 year old male with a nitrous oxide use disorder who was reportedly using of up to 400 8g canisters of nitrous oxide per day. Oral naltrexone was initiated at 50mg daily in an attempt to decrease cravings. The dose was subsequently up-titrated to 100mg daily, resulting in a decrease in nitrous oxide use to less than 60 8g canisters per week over a one month timeframe. CONCLUSION: Previous literature surrounding naltrexone provides both a plausible mechanism of action for craving reduction as well as a precedent for its use across a number of substances. While clinical studies are currently lacking, this case highlights naltrexone as a novel treatment strategy for nitrous oxide use disorder, with potential to reduce significant harms associated with chronic use.

Willing to present orally: Yes

Financial Support: SN is supported by a Health Professional Investigator Scholar Award from MSFHR. SI is enrolled in a NIDA-funded research fellowship offered in partnership with the British Columbia Centre on Substance Use (grant R25-DA037756).

Name of Sponsor (If you are NOT) a CPDD Member: Seonaid Nolan

Email Address of Sponsor : seonaid.nolan@bccsu.ubc.ca

Prefix: Dr.

First Name: Sarah

Last Name: Ickowicz

Degrees: MA MD Ph.D etc:: MD, FRCP

Email: sarahickowicz@gmail.com

Company Affiliation: University of British Columbia

Mailing Address: 400-1045 Howe St

City: Vancouver

State: BC

Zip/Postal: V6Z 2A9

Country: Canada

Phone: 604 362 2242

ID: 216
Sexual risk among substance using African Americans with a main partner

Caravella McCuistian, University of Cincinnati, mccuiscl@mail.uc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Sex Differences

Abstract: AIM African American substance users represent a population at high-risk for HIV. While sexual practices can differ based on partner status, research suggests that having a main partner does not decrease risk. Further, gender differences exist in factors associated with HIV risk, including attitudes towards condoms. The current study 1) explored gender differences in attitudes towards condoms and sexual risk behavior and 2) examined the relationship between attitudes and unprotected sex among African American substance users. METHOD This study was a secondary analysis of the baseline data from two National Drug Abuse Treatment Clinical Trial Network datasets (CTN 0018 and CTN 0019). Only African American substance users who reported a current main partner were included (n = 203). RESULTS Aim 1 results revealed significant gender differences in attitudes towards condoms, $F(2,200) = .7.34$, $p < .01$, with men reporting more motivational barriers than women. Approaching significance, men were also more likely to believe that condom use would impede the sexual experience. No gender differences in unprotected sex were observed. For Aim 2, the perception that condoms negatively impact the sexual experience was a significant predictor of unprotected sex ($\beta = -.22$, $p < .05$). Additional findings revealed that 40.9% of the sample reported both a main and casual partner. The sample reported low condom use overall, with an average of 88.5% of sexual occasions over the last 3 months being unprotected. CONCLUSION Findings suggest that African American substance using men and women may have different attitudes towards condoms that could impact their consistent use. Despite indicating they have a main partner, many participants reported having a casual partner as well. Considering the high level of unprotected sex, these findings support the need for gender-specific sexual health interventions that target individuals who are in both casual and monogamous relationships.

Willing to present orally: Yes

Financial Support: None

Name of Sponsor (If you are NOT) a CPDD Member: James Sorensen, PhD

Email Address of Sponsor : james.sorensen@ucsf.edu

Prefix: Ms.

First Name: Caravella

Last Name: McCuistian

Degrees: MA MD Ph.D etc:: MA

Email: mccuiscl@mail.uc.edu

Company Affiliation: University of Cincinnati

Mailing Address: 189 3rd St.

Address 2: Apt A209

City: Oakland

State: CA

Zip/Postal: 94607

Country: United States

Phone: 937-239-8622

ID: 217
Effects of methamphetamine isomers on d-methamphetamine self-administration and food-maintained responding in male rats

Linda Dwoskin, University of Kentucky, ldwoskin@uky.edu

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Stimulants

Topic: Treatment

Other Topic: drug discovery

Abstract: Despite escalating methamphetamine (METH) use and high relapse rates, pharmacotherapeutics for METH use disorders are not available. METH abuse is generally attributed to the d-isomer. Self-administration of l-METH has been examined only in rhesus monkeys with a history of cocaine self-administration or drug-naïve rats using high toxic doses. AIM: The purpose of the present study was to determine the ability of l-METH and, for comparison, d-METH to engender self-administration in experimentally-naïve rats, as well as to decrease d-METH self-administration and food-maintained responding were examined. METHODS: Male Sprague-Dawley rats were used in 3 separate experiments (n=18, 12, and 8, respectively). In Experiment 1, the acquisition of l- or d-METH self-administration followed by dose-response determinations was studied. In Experiment 2, rats were trained to self-administer d-METH (0.05 mg/kg/infusion) and, then, various doses of l- or d-METH were given acutely prior to the session; the effect of repeated l-METH (30 mg/kg) also was examined. In Experiment 3, rats were trained to respond for food reinforcement and, then, various doses of l- or d-METH were given acutely prior to the session; the effect of repeated l-METH (3 mg/kg) also was examined. RESULTS: Reliable acquisition of l- and d-METH self-administration was obtained at unit doses of 0.5 and 0.05 mg/kg/infusion respectively ($F(3,39)=13.6$. p . The dose-response function for l-METH self-administration was flattened and shifted rightward compared to d-METH self-administration, with peak responding for l- and d-METH occurring at unit doses of 0.17 and 0.025, respectively. Also, l-METH was approximately 10-fold less potent than d-METH in decreasing d-METH self-administration ($F(1,67)=16.1$, p and 2-fold lower in decreasing food-maintained responding ($p>0.05$). Tolerance did not occur to repeated l-METH pretreatments on either measure. CONCLUSION: l-METH has lesser abuse liability than d-METH, and may be a useful pharmacotherapy for METH use disorder.

Willing to present orally: Yes

Financial Support: Supported by NIH K01 DA039306 (SJK), P50 DA05312 (MTB), U01 DA13519 (LPD), U01 DA043908 (LPD) and T32 DA016176 (LPD).

Prefix: Dr.

First Name: Linda

Middle Initial: P.

Last Name: Dwoskin

Degrees: MA MD Ph.D etc:: Ph.D.

Email: ldwoskin@uky.edu

CC Email: lbr229@uky.edu

Company Affiliation: University of Kentucky

Contact Title: Professor

Mailing Address: 789 S. Limestone

City: Lexington

State: KY

Zip/Postal: 40536-0596

Country: United States

Phone: (859) 257-4743

Fax: (859) 257-7564

Membership Year: 1997

Sponsor: Thomas H. Kelly & Roger D. Spealman

ID: 218
Differences in stimulant misuse motives between education level

Alexander Peterkin, Palo Alto University, apeterkin@paloaltou.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Behavior

Abstract: Hypotheses. 1) There will be a significant difference in number of academic and enhancement motives for stimulant misuse between different education levels. 2) The above relationships will remain significant after controlling for gender, grades, memory and concentration difficulties, stimulant abuse and dependence, interest in risk-taking behaviors, and importance of religion. Species. Human Number of Subjects. 2878 Procedures. This was a retrospective analysis of data collected from the National Survey of Drug Use and Health (NSDUS) in 2016. Data were analyzed on those who answered "Yes" to "Have you ever used stimulants not directed by your doctor?" Participants were grouped into four education levels (Elementary/Middle School, High School, College, and No School) based on their answer to "What grade are you currently in?" Composite scores were created based on answers to dichotomous questions regarding three academic motives and four enhancement motives for misuse. Statistical Analyses. Multivariate analysis of variance (MANOVA) and multivariate analysis of covariance (MANCOVA) Results. All overall models were significant. Post-hoc analysis revealed that college students had significantly more academic motives than high school students, 95% CI [.059, .413], and those not in school, 95% CI [.529, .748]. High school students displayed significantly more enhancement motives than college students, 95% CI [.160, .364], and those not in school, 95% CI [.175, .358]. These results did not remain significant when all covariances were controlled for, $F(3, 2866) = 1.445$, $p = .228$, but did remain significant when importance of religion was removed from the model, $F(3, 2873) = 2.366$, $p = .032$. Conclusions. Academic motives seem to be the primary motivation for stimulant misuse among college students. High school students, on the other hand, seem to also be motivated by factors that motivate other forms of substance use, such as getting high or experimenting, when misusing stimulants. A high degree

Willing to present orally: No

Financial Support: None

Prefix: Mr.

First Name: Alexander

Middle Initial: L

Last Name: Peterkin

Degrees: MA MD Ph.D etc:: MS

Email: apeterkin@paloaltou.edu

Company Affiliation: Palo Alto University

Mailing Address: 1791 Arastradero Rd

City: Palo Alto

State: CA

Zip/Postal: 94304

Country: United States

Phone: 7037744972

ID: 219
Impact of decision-making capacities on 3-months treatment outcome among patients treated for cannabis use disorder

Marc Auriacombe, Université de Bordeaux, marc.auriacombe@u-bordeaux.fr

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Other

Other Topic: neuropsychology, executive function

Abstract: Aim: Studies have shown impaired performance on tests of decision-making capacities among patients with cannabis use disorder. This impaired decision-making might be a barrier to addiction treatment outcome response either through reduced compliance and/or reduced treatment efficacy. The main goal of this study was to assess the impact of decision-making capacities on cannabis addiction treatment outcomes at 3-months and to explore possible mechanisms. Method: Decision-making capacities were measured using the Iowa Gambling Task (IGT) before addiction treatment admission. Addiction was characterized with the Addiction Severity Index (ASI), DSM-5 diagnostic criteria and craving assessment. Treatment outcome was defined as change in the ASI Drug Composite Score (CS). Quantification of treatment service use was assessed by the Treatment Service Review (TSR) and the ASI. A multivariate regression was used to control for potential confounders and explanatory variables. Results: 39 subjects were included. IGT net score at inclusion was significantly associated with improvement of ASI Drug CS at 3-month follow-up ($\rho = -0.328$; $p = 0.045$). This association was lost when adjusting for level of education. Conclusion:Decision-making capacities as measured by the IGT might represent a prognostic factor among patients starting outpatient treatment for cannabis use disorder. Further studies are needed to determine how level of education influences this association.

Willing to present orally: Yes

Financial Support: French Government Health Research Grant (PHRC) and French Government Addiction Agency (MILDECA).

Prefix: Dr.

First Name: Marc

Last Name: Auriacombe

Degrees: MA MD Ph.D etc:: M.D., M.Sc.

Email: marc.auriacombe@u-bordeaux.fr

CC Email: marc.auriacombe@u-bordeaux.fr

Company Affiliation: Université de Bordeaux

Mailing Address: 121 rue de la Béchade

City: Bordeaux

State: France

Zip/Postal: F-33076

Country: France

Phone: 33 5 56 56 17 38

Fax: 33-5 56 56 17 27

Membership Year: 1996

Sponsor: Charles P. O'Brien & George E. Woody

Travel Award: 1992

Research Interests: Clinical Drug Development,Treatment

ID: 220
Physical health and gambling and gaming disorders: A critical and systematic review of the literature

Marc Auriacombe, Université de Bordeaux, marc.auriacombe@u-bordeaux.fr

---

Abstract Category: Literature Review

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Gaming addiction, gambling addiction

Topic: Other

Other Topic: physical health

Abstract: Aim: Gambling and Gaming disorders were introduced as addictions in DSM-5 and ICD-11. Links between these disorders and psychiatric comorbidities have been extensively investigated, but so far the impact on physical health has been overlooked. Our objective was to evaluate the impact of gaming and gambling disorders on the physical health of gamers and gamblers. Method: A systematic review of the literature was based on use of PubMed/Medline to retrieve studies with the following key words: «gambling», «pathological gambling», « gambling health», «gaming», «pathological gaming», «gaming health». 133 articles were obtained. After screening titles/abstracts then full reading of papers and references, 14 articles reporting 57848 subjects with gambling disorder and 11 articles reporting 63887 subjects with gaming disorder were selected for this review. Results: All 25 papers described the physical health of individuals with gaming or gambling disorders. For gambling, data showed high prevalence for sleep disorders (35 to 68%), digestive disorder (20 to 40%), headaches (20 to 30%) and cardiovascular disorders (tachycardia (9%) and coronary artery disease (2 to 23%)). Results were mostly significant when compared to the general population. For gaming, available studies reported qualitative data. Most frequently reported symptoms were sleeping complaints, joint pain, headaches and visual problems. These symptoms were more frequently described for teenagers. Sleeping complaints were the most frequently reported symptom. Conclusion: This review documented that individuals with gaming or gambling disorders have an impaired physical health. Further studies are needed to better understand the causal role of addiction, gaming, and gambling. Knowledge of these physical symptoms could help primary care physicians to better screen for gambling and gaming disorders among patients.

Willing to present orally: Yes

Financial Support: Internal funds

Prefix: Dr.

First Name: Marc

Last Name: Auriacombe

Degrees: MA MD Ph.D etc:: M.D., M.Sc.

Email: marc.auriacombe@u-bordeaux.fr

CC Email: marc.auriacombe@u-bordeaux.fr

Company Affiliation: Université de Bordeaux

Mailing Address: 121 rue de la Béchade

City: Bordeaux

State: France

Zip/Postal: F-33076

Country: France

Phone: 33 5 56 56 17 38

Fax: 33-5 56 56 17 27

Membership Year: 1996

Sponsor: Charles P. O'Brien & George E. Woody

Travel Award: 1992

Research Interests: Clinical Drug Development,Treatment

ID: 221
Reduced-nicotine cigarettes: Behavioral-economics of operant reinforcement

Matthew Johnson, Johns Hopkins University School of Medicine, mwj@jhu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Behavior

Abstract: AIM The Tobacco Control Act provided the FDA with authority to regulate nicotine content in cigarettes, and reducing cigarette nicotine content has been proposed as a means for reducing cigarette consumption. However, data are limited regarding the relative abuse liability of reduced- vs. full-nicotine cigarettes . The current study aimed to address this gap using an operant behavioral economic demand approach. METHODS Cigarette-deprived, dependent smokers (n=16) completed multiple, operant experimental sessions. Demand curves were generated as participants worked for cigarette puffs across a range of fixed-ratio requirements (Lindsley plunger pulls; FR-10 to FR-10,000 for 3 puffs), with both full- (14.8 mg/g) and reduced-nicotine (4.8, 2.2, or 1.3 mg/g across participants) cigarettes available alone and concurrently. Following completion of demand sessions, participants were given reduced-nicotine cigarettes to smoke over a three-week exposure period. Participants then returned to the laboratory to repeat the demand sessions. RESULTS Neither demand intensity (consumption at lowest price) nor demand elasticity (price-sensitivity) differed between full- and reduced-nicotine cigarettes before or after at-home exposure. Similarly, as full-nicotine ratio increased, consumption of concurrently-available reduced-nicotine cigarettes increased at both timepoints. However, there was a reduction in demand intensity and increase in demand elasticity for both full- and reduced-nicotine content cigarettes following the exposure period in the single-item but not concurrent demand procedures. CONCLUSION These data, although still preliminary with recruitment ongoing, indicate that the abuse liability of reduced-nicotine cigarettes is comparable to full-nicotine cigarettes; however, prolonged exposure to reduced-nicotine cigarettes can reduce cigarette demand and, in-turn, cigarette consumption, at least when only one cigarette type is available. Furthermore, these data suggest that reduced-nicotine cigarettes may serve as substitutes for standard cigarettes in current smokers, but may ultimately lead to reduced levels of cigarette consumption.

Willing to present orally: Yes

Financial Support: NIDA R01DA0425272

Prefix: Dr.

First Name: Matthew

Middle Initial: W.

Last Name: Johnson

Degrees: MA MD Ph.D etc:: Ph.D.

Email: mwj@jhu.edu

Company Affiliation: Johns Hopkins University School of Medicine

Mailing Address: 5510 Nathan Shock Drive

City: Baltimore

State: MD

Zip/Postal: 21224-6823

Country: United States

Phone: (410) 550-0056

Membership Year: 2003

Sponsor: Warren K. Bickel, Ph.D. and Ronald Griffiths

Travel Award: 2007

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 222
The prevalence of polysubstance use among psychiatric and emergency department patients in West Virginia

James Mahoney, West Virginia University School of Medicine, james.j.mahoney@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Other

Other Topic: Polysubstance use

Abstract: Aim: In 2017, it was estimated that 11.8 million people in the United States misused opioids with more than 63,000 deaths nationally. West Virginia continues to have the highest drug overdose mortality in the nation with 58 deaths per 100,000 population, well ahead of all other states. The purpose of this study was to assess the rate of polysubstance use. Methods: In this retrospective study utilizing the WVU Medicine electronic medical record data repository, deidentified data were extracted from the following healthcare encounters: inpatient psychiatric admissions, psychiatric outpatient visits, and emergency department visits between 2015 and 2017. Inclusion criteria required that individuals have a diagnosis of opioid use disorder (OUD) and provided a positive urine toxicology for opioids at the time of the initial encounter with the healthcare system. Results: A total of 1,845 persons met the inclusion criteria 73% of which had polysubstance use. Across psychiatric inpatients, outpatients, and emergency room admissions, 41-45% were positive for opioids and one additional substance, 21-28% were positive for opioids and two additional substance, and 3-6% were positive for opioids and 3 or more additional substances. Benzodiazepines were the most common co-occurring substance, 47% among psychiatric inpatients, 45% among psychiatric outpatients, and 40% among ED patients. Cannabis was the second most common co-occurring drug (33%-36%), and cocaine the third most common co-occurring drug (23% - 32%). Among ED admissions, 89 were also diagnosed with substance toxicity/overdose; of those, 44% were positive for benzodiazepines, 34% cannabis, and 32% cocaine in addition to opioids. Conclusion: These data demonstrate that the current substance use epidemic in the U.S. extends well beyond opioids, suggesting that comprehensive substance use disorder prevention and treatment strategies are needed.

Willing to present orally: No

Financial Support: The author (JJM) receives support by the National Institute of General Medical Sciences of the National Institutes of Health under Award Number, U54GM104942-03. The funding source had no other role other than financial support. The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH.

Prefix: Dr.

First Name: James

Last Name: Mahoney

Degrees: MA MD Ph.D etc:: Ph.D.

Email: james.j.mahoney@gmail.com

CC Email: james.j.mahoney@gmail.com

Company Affiliation: West Virginia University School of Medicine

Mailing Address: 930 Chestnut Ridge Road

City: Morgantown

State: WV

Zip/Postal: 26505

Country: United States

Phone: 8327993687

Sponsor: Dr. Richard De La Garza and Dr. Thomas Kosten

Research Interests: Behavioral Pharmacology,Clinical Drug Development

Date of Membership: 11.16.18 approved

ID: 223
Examining the impact of chronic non-cancer pain on buprenorphine treatment response for individuals with opioid use disorder

Kelly Peck, University of Vermont, krpeck@uvm.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim. Despite the prevalence of chronic non-cancer pain (CNCP) among individuals receiving opioid agonist treatment (OAT) for opioid use disorder (OUD), the effect of CNCP on OAT outcomes is not well-established. In this secondary analysis, we compared treatment outcomes between participants with and without CNCP who received Interim Buprenorphine Treatment (IBT) during waitlist delays to more comprehensive opioid treatment. Methods. Participants were 37 individuals with OUD who completed the Brief Pain Inventory at intake and received a 12-week IBT intervention consisting of buprenorphine maintenance with bi-monthly clinic visits and technology-assisted monitoring. At monthly assessments, participants completed staff-observed urinalysis, the Beck Anxiety Inventory, Beck Depression Inventory (BDI-II), the Brief Symptom Inventory, and Addiction Severity Index (ASI). Results. At study intake, demographic and drug use characteristics were generally similar among participants with (n = 15) and without (n = 22) CNCP; however, individuals with CNCP were more likely to report opioid use that began with a valid prescription and more severe medical problems (p's 0.05). Participants with CNCP also demonstrated significant improvements on the BDI-II and ASI Medical and Drug subscales during treatment (p's < 0 .05), though they still reported greater medical severity at each assessment compared to those without CNCP. Finally, participants with CNCP reported less improvements in legal and family and social problems relative to those without CNCP. Conclusion. Despite presenting with severe medical problems at intake, participants with CNCP achieved significant reductions in illicit opioid use, drug-related consequences, and depressive symptoms. Even so, additional medical, legal, and social resources may be helpful for individuals with CNCP as they cope with ongoing medical and psychosocial problems.

Willing to present orally: Yes

Financial Support: This work was supported in part by the National Institute on Drug Abuse (R01DA042790, R34DA037385, and T32DA007242), the National Institute of General Medical Sciences (P20GM103644), and the Laura and John Arnold Foundation.

Prefix: Dr.

First Name: Kelly

Middle Initial: R

Last Name: Peck

Degrees: MA MD Ph.D etc:: Ph.D

Email: krpeck@uvm.edu

Company Affiliation: University of Vermont

Mailing Address: Vermont Center on Behavior and Health, 1 South Prospect Street, UHC-MS #482

City: Burlington

State: VT

Zip/Postal: 05401

Country: United States

Phone: 802-656-9610

Membership Year: 2017

Sponsor: Dr. Stacy Sigmon, PhD

Research Interests: Psychiatric/Medical Morbidity,Treatment

ID: 224
Item response theory analyses of DSM-5 substance use disorder criteria in French outpatient addiction clinic participants

Marc Auriacombe, Université de Bordeaux, marc.auriacombe@u-bordeaux.fr

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: alcohol, opiates, cocaine, tobacco, cannabis

Topic: Epidemiology

Other Topic: diagnostic criteria

Abstract: Aim:To examine the dimensional properties of the DSM-5 SUD criteria to characterize the latent severity continuum for alcohol, opiates, cocaine, cannabis and tobacco use in French outpatient addiction clinic participants. Methods: Item response theory(IRT)analysis was performed. Factor and2-parameter IRT analysis were used to investigate the dimensionality and psychometric properties of alcohol (n= 657), opiates (n= 112), cocaine (n= 119), tobacco (n= 818) and cannabis (n= 436) criteria, among current users. We compared total information area index and 95% Confidence Intervals (CI) for each of the 5 substances. Results: The sample consisted in 1189 participants(68% males, mean age 38.7 years (SD=11)). The prevalence of all DSM-5 criteria and craving was high for all substances especially for craving (ranged from 71% to 87% across substances). One-factor dimensionality was confirmed and craving criterion had a high severity (ranged from -1.29 to -0.67) and discrimination (ranged from 2.11 to 3.05) compared to other criteria for all substances. Total Information Area and 95% CIs showed that the addition of abuse and craving criteria improved the total information for alcohol, cannabis and tobacco. Conclusion:Consistent with other studies in clinical samples of current users, our findings supported the unique dimensionality of the 11 SUD criteria. The craving criterion was involved in the improvement of the total information and the high severity (frequency) and discrimination of craving criterion suggested that this criterion would be a specific criterion among the diagnostic criteria.

Willing to present orally: Yes

Financial Support: French Government Addiction Agency MILDECA, Progamme Hospitalier de recherche clinique (PHRC)

Prefix: Dr.

First Name: Marc

Last Name: Auriacombe

Degrees: MA MD Ph.D etc:: M.D., M.Sc.

Email: marc.auriacombe@u-bordeaux.fr

CC Email: marc.auriacombe@u-bordeaux.fr

Company Affiliation: Université de Bordeaux

Mailing Address: 121 rue de la Béchade

City: Bordeaux

State: France

Zip/Postal: F-33076

Country: France

Phone: 33 5 56 56 17 38

Fax: 33-5 56 56 17 27

Membership Year: 1996

Sponsor: Charles P. O'Brien & George E. Woody

Travel Award: 1992

Research Interests: Clinical Drug Development,Treatment

ID: 225
A statewide pharmacy-based naloxone purchase trial in Massachusetts

Robin Pollini, West Virginia University, Robin.Pollini@hsc.wvu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Other

Other Topic: Overdose

Abstract: Aims: In response to rising opioid overdose rates, a large number of states have implemented standing order policies allowing naloxone purchase without prescription at pharmacies. Massachusetts was among the first to promote such a policy in 2014. We conducted a statewide naloxone purchase trial to assess naloxone access at pharmacies. Methods: We randomly selected 200 of 1,096 retail pharmacies and conducted purchases between May and September, 2018. Purchasers did not use illicit opioids but had a family member or friend at risk of illicit opioid overdose. We trained purchasers to adhere to a standardized purchase protocol to insure uniformity across purchase attempts. Purchases were in cash; where multiple naloxone formulations were available, purchasers chose the least expensive option with a cap of $150. We used descriptive statistics to analyze results. Results: Overall, 157 of 200 purchase attempts (78.5%) were successful. Most purchases (84.0%) were NARCAN® nasal spray. Most (80.5%) were asked for a name, DOB, or address to complete the purchase. In a small number of attempts, purchasers were asked for unnecessary information including who the naloxone was for (13.5%) and/or why they wanted to buy naloxone (7.0%), and 6.5% were asked for ID. The most common reasons for incomplete purchase were not stocking naloxone or related components (e.g., syringe, nasal atomizer) (44.2%), price greater than $150 (27.9%), and requiring a prescription (18.6%). With regard to state-mandated counseling, 55.4% of purchases involved directing the purchaser to review written information materials and 47.8% involved verbal counseling. Verbal counseling most commonly included information on how to use/assemble the naloxone (72.0%) and the importance of calling 911 (70.7%). Conclusions: We documented a high level of implementation among Massachusetts pharmacies of the naloxone standing order policy. Information on how Massachusetts' pharmacies implemented this policy may provide guidance for states struggling to achieve similarly high participation levels.

Willing to present orally: Yes

Financial Support: National Institute on Drug Abuse R01 DA040807

Prefix: Dr.

First Name: Robin

Middle Initial: A.

Last Name: Pollini

Degrees: MA MD Ph.D etc:: PhD, MPH

Email: Robin.Pollini@hsc.wvu.edu

Company Affiliation: West Virginia University

Mailing Address: 3606 Collins Ferry Road

Address 2: Research Ridge - Suite 201

City: Morgantown

State: WV

Zip/Postal: 26505

Country: United States

Phone: 443-416-6493

Fax: 304-293-0265

Membership Year: 2003

Sponsor: Drs. Steffanie Strathdee and Jane Maxwell

Research Interests: Epidemiology,Policy

ID: 226
Cannabidiol decreases drug choice in rhesus monkeys responding under a food versus remifentanil choice procedure

David Maguire, University of Texas Health Science Center, maguired@uthscsa.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM Opioid abuse remains a serious public health challenge despite the availability of medications that are effective in some patients. Cannabidiol is a nonpsychoactive constituent of cannabis that is thought to have potential as a treatment for opioid abuse. However, effects of cannabidiol on opioid self-administration have not been well characterized. This study examined effects of cannabidiol in monkeys responding under a food versus drug choice procedure, which is very sensitive to changes in the reinforcing (i.e., abuse-related) effects of drugs. METHODS Three male rhesus monkeys served as subjects. Responding on one lever delivered a 300-mg sucrose pellet and responding on the other lever delivered an i.v. infusion of the mu opioid receptor agonist remifentanil. Daily sessions comprised 4 blocks each with 2 forced trials followed by 10 choice trials. The dose of remifentanil (0.000032-0.001 mg/kg/infusion) increased across blocks within each session allowing for determination of a complete dose-effect curve. Cannabidiol (3.2-17.8 mg/kg) was administered i.v. 15 min prior to test sessions. RESULTS Remifentanil dose-dependently increased choice of remifentanil over food. Cannabidiol decreased choice of intermediate doses of remifentanil, and increased choice of food, shifting the remifentanil dose-effect curve >3 fold rightward. Doses of cannabidiol that shifted the dose-effect curve for choice did not decrease the total number of choice trials completed. CONCLUSION Rightward shifts in the remifentanil dose-effect curve for choice suggests that cannabidiol attenuated the positive reinforcing effects of remifentanil. Because the total number of choice trials completed was not decreased, this effect of cannabidiol is the result of reallocation of behavior rather than a generalized suppression of behavior. The selective attenuation of opioid-maintained behavior suggests cannabidiol might be an effective treatment for opioid abuse.

Willing to present orally: No

Financial Support: This work was supported by the National Institutes of Health [Grant R01DA005018] and the Welch Foundation [Grant AQ-0039].

Name of Sponsor (If you are NOT) a CPDD Member: Charles France

Email Address of Sponsor : france@uthscsa.edu

Prefix: Dr.

First Name: David

Last Name: Maguire

Degrees: MA MD Ph.D etc:: Ph.D.

Email: maguired@uthscsa.edu

Company Affiliation: University of Texas Health Science Center

Mailing Address: 7703 Floyd Curl Drive

City: San Antonio

State: TX

Zip/Postal: 78779

Country: United States

Phone: -2105674172

Membership Year: 2012

Sponsor: Dr. Charles France, Ph.D.

Research Interests: Behavioral Pharmacology Pharmacology

ID: 227
Substance use disorder diagnosis and craving: Comparison of substance users accessing treatment and substance users in harm reduction programs

Marc Auriacombe, Université de Bordeaux, marc.auriacombe@u-bordeaux.fr

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: alcohol, opiates, cocaine, tobacco, cannabis

Topic: Dependence

Other Topic: diagnostic criteria

Abstract: Aim: To compare substance use disorder (SUD) prevalence, distribution of endorsed SUD criteria and intensity of craving between substance users in Harm Reduction (HR) settings and those accessing treatment (Tx). Methods: Data was extracted from the ADDICAQUI and COSINUS Cohorts. Substance users who sought treatment at an outpatient addiction clinic (n=1,143) and users in HRprograms (n=130) in Bordeaux, France were assessed with the ASI, a visual analog scale of craving and DSM-5 SUD criteria.Pearson's chi-squared testwas performed for categorical variables and student-t test or a Welch test for continuous variables. A Bonferroni correction was implemented, which resulted in a critical value for significance of p < 0 .003. Results: Analyses were conducted separately for current users of alcohol (Tx n= 657, HR n=89), opiates (Tx n= 112, HR n=102), cocaine (Tx n= 119, HR n=82), tobacco (Tx n= 818, HR n=127) and cannabis (Tx n= 436, HR n=95). There were no difference between the HR and Tx groups, but HR subjectswere younger (test value, p

Willing to present orally: Yes

Financial Support: French Government Addiction Agency MILDECA

Prefix: Dr.

First Name: Marc

Last Name: Auriacombe

Degrees: MA MD Ph.D etc:: M.D., M.Sc.

Email: marc.auriacombe@u-bordeaux.fr

CC Email: marc.auriacombe@u-bordeaux.fr

Company Affiliation: Université de Bordeaux

Mailing Address: 121 rue de la Béchade

City: Bordeaux

State: France

Zip/Postal: F-33076

Country: France

Phone: 33 5 56 56 17 38

Fax: 33-5 56 56 17 27

Membership Year: 1996

Sponsor: Charles P. O'Brien & George E. Woody

Travel Award: 1992

Research Interests: Clinical Drug Development,Treatment

ID: 228
Who gains the most from online training in addiction medicine? Development and evaluation of a free, open-access online certificate in addiction medicine

Lauren Gorfinkel, Mailman School of Public Health at Columbia University, lauren.gorfinkel@outlook.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim: To evaluate changes and differences in knowledge acquisition between different health care professionals before and after completion of a newly-established online certificate in addiction medicine. Methods: Learners enrolled in a 17-module certificate program and completed pre- and post- knowledge tests using online multiple-choice questionnaires. Knowledge acquisition was evaluated using a repeated measures t-test of mean test scores before and after the online course. Differences in pretest scores and change-in-scores between participants from varying health professions were evaluated using linear regression. Following certificate completion, a subset of learners completed online course evaluation form. Results: Of the total 6985 participants who registered for the online course between May 15, 2017 and February 22, 2018, 3466 (49.6%) completed the online pre-test questionnaire. A total of 1010 participants completed the full course, achieving the required 70% scores. Participants self-reported working in a broad range of health-related fields, including nursing (371), medicine (92), counselling or social work (69), community health (44), and pharmacy (34). The median graduation year was 2010 (n = 363, interquartile range 2002-2015). Knowledge of addiction medicine increased significantly post-certificate (mean difference 28.21; 95% Confidence Interval 27.32-29.10; $p < 0$ .001). Physicians scored significantly higher on the pre-test than any other health discipline ($p < 0$ .01), while the greatest improvement in scores was seen in the counselling professions ($p < 0$ .05) and community outreach ($p < 0$ .01). Conclusions: This free, online, open-access certificate in addiction medicine was found to improve knowledge of learners from a variety of disciplines and backgrounds. Scaling up “low threshold” learning opportunities may further advance addiction medicine training, thereby helping to narrow the evidence-to-practice gap.

Willing to present orally: Yes

Financial Support: Applying for Travel Awards through CPDD and Columbia University

Name of Sponsor (If you are NOT) a CPDD Member: Jan Klimas

Email Address of Sponsor : jan.klimas@bccsu.ubc.ca

Prefix: Ms.

First Name: Lauren

Last Name: Gorfinkel

Email: lauren.gorfinkel@outlook.com

Company Affiliation: Mailman School of Public Health at Columbia University

Mailing Address: 280 W 117th St, Apt 2B

City: New York

State: NY

Zip/Postal: 10026

Country: United States

Phone: 6262415068

ID: 229
The effects of naloxone-precipitated opioid withdrawal on the parasympathetic nervous system

Jonathan Wai, Columbia University Medical Center, Jonathan.Wai@nyspi.columbia.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Neurobiology

Abstract: AIM: The sympathetic nervous system (SNS) is activated in individuals experiencing opioid withdrawal. However, the contribution of the parasympathetic nervous system (PNS) during withdrawal remains unclear. This study aims to evaluate the changes in cardiac vagal tone during opioid withdrawal via measurements of heart rate variability (HRV). METHODS: Electrocardiogram (ECG) measures were collected in 2-min epochs during a naloxone challenge procedure. The Wang Test (Wang et al., 1974) was used to measure the presentation of both objective and subjective indicators of opioid withdrawal. Participants received an intramuscular dose of 0.2mg naloxone, with a second dose (0.2-0.4mg) given at 10 minutes, if necessary, to induce withdrawal. Assessments were made every 10 min for up to 50 min. HRV was measured before and after naloxone administration. The root mean square of successive differences (RMSSD) and high frequency heart rate variability (HF-HRV) were calculated from the ECG to measure PNS activity. RESULTS: All participants (n=6) were male, otherwise healthy, daily heroin users (average age=49 years). Self-reported heroin use was 7 bags/day. The average total naloxone dose administered was 0.33mg. The mean pre- and post-naloxone withdrawal scores were 0.67 and 15, respectively (a post-naloxone score of 10 was used to confirm opioid dependence). Comparisons using a Wilcoxon Signed-Ranks Test showed RMSSD ($Z=-2.201$, $p=0.028$) and HF-HRV ($Z=-2.201$, $p=0.028$) were significantly lower during withdrawal (mean RMSSD=19.54 ms; mean HF=155.75 ms^2) compared to baseline (mean RMSSD=27.39 ms; mean HF=301.38 ms^2). However, heart rate was not significantly elevated ($Z=-1.572$, $p=0.116$) during withdrawal. CONCLUSION: These data suggest that withdrawal reduces PNS activity, and HRV may be a more sensitive measure of withdrawal than heart rate. Targeting both the PNS and SNS may be important for effectively treating opioid withdrawal.

Willing to present orally: Yes

Financial Support: NIDA T32-DA007294-26

Name of Sponsor (If you are NOT) a CPDD Member: Sandra D. Comer

Email Address of Sponsor : sdc10@cumc.columbia.edu

Prefix: Dr.

First Name: Jonathan

Last Name: Wai

Degrees: MA MD Ph.D etc:: MD

Email: Jonathan.Wai@nyspi.columbia.edu

Company Affiliation: Columbia University Medical Center

Mailing Address: 1051 Riverside Dr Unit 66

City: New York

State: NY

Zip/Postal: 10032-1007

Country: United States

Phone: 6467745819

ID: 230
A novel neuropeptide decreases opioid self-administration

James Kasper, University of Texas Medical Branch, jakasper@utmb.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Behavior

Abstract: Aim: Neuromedin U (NMU) and its NMU receptor 2 (NMUR2) are expressed in the limbic-corticostriatal circuitry involved in the enhanced motivational attributes of drugs of abuse, which are key factors in sustained opioid use disorder (OUD) and relapse. The NMUR2 is a G protein-coupled receptor which is enriched in a key node of this neurocircuitry, the nucleus accumbens. NMU regulates behavioral responses to psychostimulants and alcohol, but NMU has not been evaluated in the context of any opioid. Therefore, we evaluated the effects of NMU to alter self-administration of the prescription opioid oxycodone. Methods: Male Sprague-Dawley rats (n=11/group) were implanted with indwelling jugular catheters and trained to self-administer oxycodone (0.1 mg/kg/inf) to criterion (less than 10% infusion variability for three days) on fixed ratio schedule (FR 5). The effects of systemic pretreatment with NMU (0.3 mg/kg) or vehicle were assessed on both fixed and progressive ratio responding for oxycodone. Data were analyzed using students t-test or repeated measure ANOVA. Results: NMU decreased oxycodone taking throughout the session ($p < 0$ .05 for main effect of time, treatment, and interaction), but did not alter latency to respond. NMU also decreased progressive ratio breakpoints ($p < 0$ .05 for main effect of time, treatment, and interaction), but, again, did not significantly alter latency to respond. Conclusion: NMU decreased the rewarding and motivational effects of oxycodone in a rat model. The current study suggests that NMU/NMUR2 has promise for future drug discovery efforts for the suppression of relapse in OUD.

Willing to present orally: No

Financial Support: R03DA033437, P30DA028821, T32DA07287, Peter F. McManus Charitable Trust, Weisman Family Foundation, and Clinical and Translational Science Award (UL1TR001439 and KL2TR001441) from the National Center for Advancing Translational Science

Prefix: Dr.

First Name: James

Middle Initial: M.

Last Name: Kasper

Degrees: MA MD Ph.D etc:: Ph.D.

Email: jakasper@utmb.edu

Company Affiliation: University of Texas Medical Branch

Mailing Address: 301 University Blvd

City: Galveston

State: TX

Zip/Postal: 77555-0615

Country: United States

Phone: 4097477064

Fax: 409-747-7050

Membership Year: 2015

Sponsor: Dr. Kathryn Cunningham, Ph.D,

Research Interests: Behavioral Pharmacology Neurobiology

ID: 231
Preconceptional, gestation, and postpartum buprenorphine exposure in rats: Litter outcomes, development, and adolescent behavior

Chela Wallin, Wayne State University, fz7628@wayne.edu

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Perinatal

Abstract: AIM: The recent opioid crises in the US lead to an increase in women treated with opioid maintenance therapy (buprenorphine; BUP), which has resulted in an escalation of infants exposed to opioids in utero. However, there is a dearth of knowledge regarding developmental consequences following exposure, especially in regards to preconceptional use. Our model is representative of an established user by starting BUP exposure 7 days prior to conception and continuing throughout postpartum. METHODS: Virgin female Sprague Dawley rats (N=30) were exposed to either saline, low (0.3 mg/kg), or high (1 mg/kg) doses of BUP for 7 days then bred in house with naïve males. Weight gain, stress course, and maternal behavior were tracked in successful pregnancies (N=26). Subsequent offspring (N=246) were assessed daily for weight, development, sex differences, and behavioral outcomes (i.e., anxiety-like behavior, pain- and stress-sensitivity). RESULTS: Results revealed high levels of BUP exposure reduced dam weight gain, litter size, and maternal care ($p < .05$). Further, males exposed to high-dose BUP were significantly larger in weight and length than females ($p < .05$). Further analysis of collected behavioral measures will reveal whether physiological alterations are associated with behavioral changes. CONCLUSION: Results confirmed expectations that BUP would significantly alter maternal gestation and interaction, as well as reduce offspring weight, delay maturation, and impact behavioral outcomes. To our knowledge, we are the first to use BUP in a preconceptional exposure model, as well as report according maternal and offspring characteristics. Future work will assess developmental differences in offspring born to mothers established on commonly abused opiates (morphine/oxycodone) that transition to an approved opioid maintenance therapy.

Willing to present orally: Yes

Financial Support: This study was funded by a ReBUILD Detroit Pilot Project Award to SB, a Betty Neitzel Award to SB and SEB & The Ben and Brenda Rosen Research Award to CMW

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Scott E. Bowen

Email Address of Sponsor : ad4771@wayne.edu

Prefix: Ms.

First Name: Chela

Middle Initial: M

Last Name: Wallin

Degrees: MA MD Ph.D etc:: B.S.

Email: fz7628@wayne.edu

CC Email: fz7628@wayne.edu

Company Affiliation: Wayne State University

Mailing Address: 55 W Canfeild, unit 106

City: Detroit

State: Michigan (MI)

Zip/Postal: 48201

Country: United States

Phone: 6165818317

ID: 232
Investigating the sensitivity to a4b2 compounds using nicotine drug discrimination in enriched and impoverished rats

Dustin Stairs, Creighton University, dustinstairs@creighton.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Nicotine/Tobacco

Topic: Behavior

Abstract: Aim: Previous work using a rodent environmental enrichment paradigm has shown that rats raised in enriched conditions (EC) have a decreased sensitivity to the discriminative stimulus effects of nicotine compared to rats raised in impoverished conditions (IC). The current study attempted to extend these enrichment findings to a different training dose of nicotine as well as test selective α4β2 nicotinic compounds to see if there was differential sensitivity in EC and IC rats. Methods: Twenty-four male Sprague Dawley rats were randomly assigned to the EC or IC condition. Rats were trained to discriminate nicotine (0.4 mg/kg, s.c.) from saline on a two-lever operant drug discrimination task. Once rats allocated at least 80% of responses on the injection-appropriate lever, a nicotine generalization curve was determined (0, 0.03, 0.056, 0.2, and 0.4 mg/kg). Next, the selective α4β2 antagonist, DHβE, was administered (0, 0.3, 1.0, or 3.2 mg/kg; s.c.) prior to the nicotine training dose. Additionally, an α4β2 partial agonist, varenicline (0, 0.3, 1.0, or 3.0 mg/kg; i.p.), was substituted for the training dose of nicotine. Results indicated that EC rats acquired nicotine drug discrimination slower than IC rats. There were no enrichment differences in the nicotine generalization curve. The nicotinic antagonist DHβE equally antagonized the effects of the training dose of nicotine in both EC and IC rats. The nicotinic partial agonist varenicline showed greater levels of substitution for the training dose of nicotine in EC rats compared to IC rats. Conclusion: Given the enrichment paradigm is used as a model of the sensation-seeking personality trait, the varenicline data may indicate a greater therapeutic effectiveness in low sensation-seeking individuals.

Willing to present orally: Yes

Financial Support: CURAS Summer Fellowship for Undergraduate Research from Creighton College of Arts and Science

Prefix: Dr.

First Name: Dustin

Middle Initial: J.

Last Name: Stairs

Degrees: MA MD Ph.D etc:: Ph.D.

Email: dustinstairs@creighton.edu

Company Affiliation: Creighton University

Mailing Address: Department of Psychological Science

Address 2: 2500 California Plaza

City: Omaha

State: NE

Zip/Postal: 68178

Country: United States

Phone: -4022802461

Membership Year: 2010

Sponsor: Drs. Michael Bardo and William Stoops

Research Interests: Clinical Drug Development

ID: 233
Sensation seeking, sexual orientation, and emerging adult drug abuse

Timothy Regan, Texas A&M University, tregan2149@tamu.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: non-alcohol drugs, broadly

Topic: Treatment

Abstract: AIM: Research demonstrates that sensation seeking, a personality trait characterized by searching and taking risks for varied, novel, and intense experiences, is associated with higher levels of drug and alcohol use. Research also demonstrates that sexual minority status is associated with higher levels of substance use, most typically through group-specific minority stress factors. We sought to examine how personality traits like sensation seeking may influence substance abuse among sexual minority individuals. METHODS: Participants were 217 emerging adults (Mage = 20.23, SD = 0.85) recruited from Amazon Mechanical Turk (MTurk). Of these participants, 67.7% identified as heterosexual, 9.7% as homosexual, 21.2% as bisexual, and 1.4% indicated other sexual orientations. Sensation seeking and drug abuse were self-reported using the Brief Sensation Seeking Scale (BSSS) and the Drug Abuse Screening Test (DAST), respectively. The current analysis is part of a larger study examining sexual risk behavior and geosocial networking application use. RESULTS: A preliminary MANOVA indicated sexual minorities (dummy-coded 0/1) scored significantly higher on the DAST (M = 1.87) compared to heterosexuals (M = 1.30). Next, sexual minority status, BSSS scores, and their interaction were entered into a linear regression predicting DAST scores. Results revealed an effect of moderation, such that the positive relationship between BSS total scores and DAST total scores was stronger for sexual minorities ($\beta = .13$, $p = .00$) compared to heterosexuals ($\beta = .05$, $p = .30$). CONCLUSION: These results demonstrate, while sensation seeking and sexual minority status may selectively indicate risk for substance use, sexual minorities high in sensation seeking may be at particular risk for problems related to drug misuse. Prevention and treatment efforts for drug abuse should consider personality-specific traits among sexual minorities, like sensation seeking. More research examining the addiction etiology of sexual minority individuals would inform targeted interventions for this unique demographic.

Willing to present orally: Yes

Financial Support: This study was funded by a dissertation enhancement award from the College of Liberal Arts at Texas A&M University to Sneha Thamotharan.

Name of Sponsor (If you are NOT) a CPDD Member: Sherecce A. Fields, Ph.D.

Email Address of Sponsor : safields@tamu.edu

Prefix: Mr.

First Name: Timothy

Last Name: Regan

Degrees: MA MD Ph.D etc:: MA

Email: tregan2149@tamu.edu

Company Affiliation: Texas A&M University

Mailing Address: 4235 TAMU Psychology Building

City: College Station

State: TX

Zip/Postal: 77843

Country: United States

Phone: 240-643-9090

ID: 234
The orexin system in the attenuation of relapse-related mechanisms in cocaine use disorder

Scott Lane, University of Texas McGovern Medical School, scott.d.lane@uth.tmc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Mechanisms of Action

Other Topic: orexin receptor system

Abstract: AIM: Preclinical research has established important functions for the orexin system in mediating arousal/sleep, stress, and cue-induced reinstatement of drug taking (e.g., relapse). The role of stress/anxiety and drug cue reactivity in human drug relapse is well established, but to date, the role of orexin system in modulating these phenomena has not been examined in humans with substance use disorders (e.g., cocaine). This first-in-human study sought to examine the effects of an orexin antagonist (Suvorexant) on interactions among stress/anxiety (cold pressor test), sleep (PSQI), inhibitory control / attentional bias (anti-saccade paradigm), and cocaine craving. METHODS: Twenty participants (10 Suvorexant, 10 placebo) with cocaine use disorder completed a 2-week preliminary outpatient trial with laboratory measurements taken during visits to the clinic laboratory on M, W, F. Suvorexant was given PO once per day @ 10 PM; 10 mg during week 1 and 20 mg during week 2. RESULTS: Data were analyzed using both Frequentist and Bayesian Mixed Linear Models. Results showed significant group x time interactions favoring Suvorexant over placebo for: inhibitory control (anti-saccade errors, p .97); craving (cocaine craving questionnaire, p .84); and stress reactivity (HR change induced by cold pressor, p .99). No effects were observed for sleep measures. More side effects were reported in the orexin group (p .98). Compliance was > 85%. CONCLUSION: The orexin system may provide a unique target for relapse prevention efforts.

Willing to present orally: Yes

Financial Support: McManus Foundation

Prefix: Dr.

First Name: Scott

Middle Initial: D.

Last Name: Lane

Degrees: MA MD Ph.D etc:: Ph.D.

Email: scott.d.lane@uth.tmc.edu

Company Affiliation: University of Texas McGovern Medical School

Contact Title: Professor

Mailing Address: 1941 East Road

City: Houston

State: TX

Zip/Postal: 77054

Country: United States

Phone: (713) 486-2535

Fax: (713) 486-2618

Membership Year: 2001

Sponsor: Don R. Cherek and John Grabowski

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 235
Drugs-violence nexus: Theory testing and health risk-factors among justice-involved Appalachian women

Grant Victor, University of Kentucky, grant.victor7@uky.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Behavior

Other Topic: Drug-related violence

Abstract: Background/Aims: This study examined the relationship between substance use and violence among justice-involved women in Appalachian Kentucky. Goldstein's (1985) tripartite conceptual framework was tested by building predictive group models based on participant's drug-related violence victimization. There were three aims of the current study. First, to build predictive group models based on the psychopharmacologic, economic-compulsive, and systemic relationship between drug use and violence. Second, examine the associations between predicted group models and mental health risk-factors. Third, examine the associations between predicted group models and infectious disease risk-factors. Method: This study used secondary data from a NIDA-funded grant focused on risk reduction among high-risk incarcerated women in Appalachia (N=400). All study recruitment and data collection procedures were approved by the university IRB. Participants were recruited from three jails in Appalachian Kentucky. Eight drug-related variables operationalized three predicted groups: 1) psychopharmacologic (Model 1); 2) economic-compulsive (Model 2); and 3) systemic (Model 3). The grouping variable was operationalized by lifetime exposure to violence victimization. Predicted group models were developed via discriminant analyses. Predicted group models were examined for associations with mental illness and risk factors for infectious disease using binary logistic regression analyses. Results: Each predicted group model was statistically significant. Model 1 was significantly associated with hallucinations (OR=2.48), unprotected sex while intoxicated (OR=2.54), injection drug use (OR=25.61), and life-threatening victimization (OR=2.31). Model 2 was significantly associated with depression (OR=1.80), hallucinations (OR=2.96), unprotected sex while intoxicated (OR=2.16), injection drug use (OR=4.10), and life-threatening victimization (OR=1.81). Model 3 was significantly associated having unprotected sex under the influence (OR=1.69). Conclusion: Findings build on Goldstein's (1985) tripartite conceptual framework by establishing predictive group models that were unique to rural justice-involved women. Prevention and treatment efforts aimed at rural justice-involved women may consider the complex relationship between drug use and violence; consideration of how these relationships impact risk factors related mental health and infectious disease is recommended.

Willing to present orally: No

Financial Support: 1R01DA033866-01A1

Prefix: Mr.

First Name: Grant

Last Name: Victor

Degrees: MA MD Ph.D etc:: MSW

Email: grant.victor7@uky.edu

Company Affiliation: University of Kentucky

Mailing Address: 258 Argonne Circle

City: Lexington

State: KY

Zip/Postal: 40517

Country: United States

Phone: 937-416-1882

ID: 236
CRF-5-HT interactions and motivation for stress-induced opioid relapse

Lynn Kirby, Lewis Katz School of Medicine at Temple University, lkirby@temple.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Neurobiology

Abstract: Previous studies have shown that stressors can inhibit 5-HT neuronal activity and release by stimulating release of the stress neurohormone corticotropin-releasing factor (CRF) within the serotonergic dorsal raphe nucleus (DRN). CRF effects on 5-HT DRN neurons are indirect, mediated by CRF-R1 receptors located on GABAergic afferents. Our laboratory is pursuing the potential role of these neurochemical interactions in stress-related psychiatric disorders including substance abuse. More recently, we have demonstrated a unique sensitization of 5-HT DRN neurons to GABAergic inhibition that is correlated with relapse to multiple drugs of abuse including opioids and in multiple models of stress-induced relapse. Furthermore, stimulation of GABA afferents to 5-HT DRN neurons is both necessary and sufficient for stress-induced relapse of previously extinguished morphine conditioned place preference (CPP). The current study demonstrates that stimulation of CRF-R1 within the DRN with the CRF-R1-preferring agonist ovine CRF is also sufficient to reinstate morphine CPP in the absence of a stressor, indicating a causal role for this circuit in stress-induced opioid relapse. We also examined the role of this circuitry in stress-induced negative affect with ultrasonic vocalizations (USVs). USVs are naturally emitted by rats in response to environmental challenges: 50 kHz calls indicate positive affective responses to stimuli such as social interaction whereas 22 kHz calls indicate negative affective responses to stimuli such as pain, stress and drug withdrawal. We found that a footshock stressor, commonly used in models of stress-induced reinstatement of drug self-administration, elicits strong 22 kHz distress calls in rats. However, if animals are pretreated with the intra-DRN CRF-R1 antagonist NBI 35965, these 22 kHz calls are significantly blunted. These data collectively support the hypothesis that stressors can elicit negative affective responses via their impact on CRF-5-HT circuits that motivate opioid relapse.

Willing to present orally: Yes

Financial Support: This work was supported by DA020126, DA037523 and DA013429.

Prefix: Dr.

First Name: Lynn

Last Name: Kirby

Degrees: MA MD Ph.D etc:: Ph.D.

Email: lkirby@temple.edu

Company Affiliation: Lewis Katz School of Medicine at Temple University

Contact Title: Assistant Professor

Mailing Address: 3500 N. Broad Street

City: Philadelphia

State: PA

Zip/Postal: 19140

Country: United States

Phone: (215) 707-8556

Fax: (215) 707-9468

Membership Year: 2007

Sponsor: Dr. Martin Adler and Dr. Toby Eisenstein

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 237
HIV pre-exposure prophylaxis (PrEP) prevention awareness, willingness and barriers among people who inject drugs (PWID) in Los Angeles and San Francisco, CA, 2016-2018.

Ricky Bluthenthal, Keck School of Medicine University of Southern California, rbluthen@usc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: People who inject drugs including opiates, methamphetamine, and cocaine

Topic: Prevention

Abstract: Aims: HIV PrEP is indicated for people who inject drugs (PWID). Few studies have examined acceptability of PrEP among PWID. We examine awareness of, willingness to, and barriers for PrEP uptake among active PWID. Methods: PWID were recruited using targeted sampling in Los Angeles and San Francisco, CA (n=601) from 2016 to 2018. Data from the 6-month interviews with HIV negative participants were used. Questions on PrEP included awareness of PrEP, willingness to take PrEP, and barriers to PrEP uptake. Logistic regression models of factors associated with awareness of and willingness to take PrEP were developed. Results: Among HIV-negative PWID, 2% were taking PrEP, 41% were aware of PrEP, and 59% reported willingness to take PrEP. PrEP awareness was associated with gay, lesbian, or bisexual identity (adjusted odds ratio [AOR]=1.91; 95% confidence interval [CI]=1.16, 3.15), under 40 years of age (AOR=1.81, 95% CI=1.23, 2.67), homelessness (AOR=1.61; 95% CI=1.01, 2.55), having high school education or more (AOR=2.31; 95% CI=1.47, 3.64), and not being Latino (AOR=1.81; 95% CI=1.14, 2.95). Willingness to take PrEP was associated with transactional sex (AOR=3.59; 95% CI=1.45, 8.88), sharing injection paraphernalia (AOR=1.81; 95% CI=1.17, 2.82), and HIV risk self-assessment greater than none (Low AOR=1.74; 95% CI=1.15, 2.63; Average AOR=2.00; 95% CI=1.02, 3.93; Moderately High AOR=4.03; 95% CI= 1.67, 9.72; Very High AOR=not significant). The most common barriers to PrEP were copays (39%), reduce efficacy of medication without daily use (35%), and concern that taking PrEP could lead to great risk (35%). Conclusion: Awareness of PrEP among PWID is insufficient, but is higher than in PWID samples in other cities (Kuo et al., 2016; Roth et al., 2018; Walters et al., 2017). Willingness to use PrEP was high and was most desired by higher risk PWID. Interventions to facilitate PrEP uptake among PWID are needed.

Willing to present orally: Yes

Financial Support: NIDA grant number R01DA038965

Prefix: Mr.

First Name: Ricky

Last Name: Bluthenthal

Degrees: MA MD Ph.D etc:: Ph.D.

Email: rbluthen@usc.edu

Company Affiliation: Keck School of Medicine University of Southern California

Mailing Address: Soto Street Building,SSB2001 N. Soto Street, 3rd Floor, MC 9239

City: Los Angeles

State: CA

Zip/Postal: 90033

Country: United States

Phone: (323) 442-8236

Fax: (323) 442-8201

Membership Year: 2013

Sponsor: Dr. Martin Iguchi and Dr. Robert Booth

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 238
Correlates of transactional sex among women who inject drugs: a mixed methods study.

Ricky Bluthenthal, Keck School of Medicine University of Southern California, rbluthen@usc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: People who inject drugs including opiates, methamphetamine, and cocaine

Topic: Other

Other Topic: Drug use among sex workers

Abstract: Aim: Transactional sex (exchanging sex for money or drugs) among women who inject drugs is associated with adverse health outcomes. We utilize a mixed methods approach to identify factors associated with transactional sex, and to describe social factors that influence transactional sex among women who inject drugs. Methods: People who inject drugs (PWID) (N=777, female N=203) were recruited using targeted sampling and interviewed in Los Angeles and San Francisco, CA (2011-2013). Logistic regression was used to determine factors associated with transactional sex in the last 6 months among women who inject drugs. Qualitative life history interviews with 113 PWID in Los Angeles and San Francisco, CA we conducted from 2011-2013. Summaries from 10 female PWID with reported current transactional sex are used in this analysis. Results: Transactional sex in the past 6 months was reported by 42 (21%) of the 203 participants included in the sample, with an average of 23 male partners. In multivariate regression analysis, reporting transactional sex among female PWID was associated with non-injected crack cocaine use (Adjusted Odds Ratio [AOR] = 5.15; 95% Confidence Interval [CI] = 2.20,12.06), parental drug use (AOR = 2.44; CI = 1.09, 5.46), injected for 10 to 19 years (AOR = 5.78; CI = 1.50, 22.28) as compared to less than 10 years, and reduced odds of high food security (AOR = 0.23; CI = 0.06, 0.92) as compared to very low food security. In qualitative interviews main themes included parental substance use and history of physical or sexual abuse.Conclusion: Female PWID who engage in transactional sex are at the intersection of multiple health risks including non-injected use of crack cocaine, having multiple sex partners, and family history of drug use. Interventions are needed at the individual and community level to reduce harms associated with these high-risk behaviors.

Willing to present orally: Yes

Financial Support: NIDA grant numbers R01DA027689, R01DA038965, R25DA026401, and T32DA007233-31.

Prefix: Mr.

First Name: Ricky

Last Name: Bluthenthal

Degrees: MA MD Ph.D etc:: Ph.D.

Email: rbluthen@usc.edu

Company Affiliation: Keck School of Medicine University of Southern California

Mailing Address: Soto Street Building,SSB2001 N. Soto Street, 3rd Floor, MC 9239

City: Los Angeles

State: CA

Zip/Postal: 90033

Country: United States

Phone: (323) 442-8236

Fax: (323) 442-8201

Membership Year: 2013

Sponsor: Dr. Martin Iguchi and Dr. Robert Booth

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 239
A longitudinal study of prescription opioid use and misuse during adolescence and adult substance use disorder symptoms

Sean McCabe, University of Michigan, plius@umich.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: AIM: This longitudinal study assesses characteristics associated with adolescents' prescription opioid misuse (POM) including co-ingestion, motives, specific opioid, subjective effects, and sequence of initiation of medical use of prescription opioids and POM in relationship to subsequent substance use disorder (SUD) symptoms. METHODS: Twenty-one independent national cohorts of U.S. high school seniors (modal ages=17-18; n=8,373) were surveyed in classrooms and followed up at age 35 using mailed questionnaires. RESULTS: The majority of adolescents who reported POM at baseline had co-ingested prescription opioids and other drugs, misused Schedule II opioid analgesics, and misused multiple opioid analgesics. Among adolescents who engaged in past-year POM, approximately 95% also used other substances and the majority simultaneously co-ingested prescription opioids with other substances (55.2%). Multivariable logistic regression analyses indicated adolescents who co-ingested prescription opioids and other substances, misused prescription opioids for pain relief, misused Schedule II opioid analgesics, misused multiple prescription opioids, or felt very high when using prescription opioids at baseline had significantly greater odds of SUD symptoms at age 35, relative to those who had no history of POM during adolescence, after adjusting for relevant covariates. Medical use of prescription opioids after initiating POM during adolescence was associated with significantly greater odds of SUD symptoms at age 35 relative to medical use of prescription opioids before POM during adolescence. CONCLUSION: This is the first U.S. national prospective study to examine the relationships between adolescents' POM characteristics and later SUD symptoms in early midlife. Several POM characteristics (co-ingestion, motives, specific opioid) and a distinct sequence of medical use of prescription opioids after initiating POM during adolescence predicted subsequent SUD symptoms. These results indicate substantial risk for developing SUD among adolescents who have initiated POM and reinforce the critical role of screening when prescribing opioid analgesics to detect high-risk youth. Supported by R01DA001411, R01DA016575, R01DA031160, R01DA036541, R01DA043691 and R01DA044245.

Willing to present orally: Yes

Financial Support: Supported by R01DA001411, R01DA016575, R01DA031160, R01DA036541, R01DA043691 and R01DA044245.

Prefix: Dr.

First Name: Sean

Middle Initial: Esteban

Last Name: McCabe

Degrees: MA MD Ph.D etc:: M.S.W., Ph.D.

Email: plius@umich.edu

CC Email: wooliver@umich.edu

Company Affiliation: University of Michigan

Contact Title: Professor, Director (Co), Research Professor

Mailing Address: 204 S. State Street

City: Ann Arbor

State: MI

Zip/Postal: 48109

Country: United States

Phone: (734) 615-8840

Membership Year: 2004

Sponsor: Carol J. Boyd, and Dr. Chris-Ellyn Johanson

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 240
Correlates of transactional sex among male people who inject drugs (PWID) in Los Angeles and San Francisco, CA

Ricky Bluthenthal, Keck School of Medicine University of Southern California, rbluthen@usc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: People who inject drugs including opiates, methamphetamine, and cocaine

Topic: Other

Other Topic: Drug use among sex workers

Abstract: Aims: Male people who inject drugs (PWID) engage in transactional sex (i.e., receive money or drugs in exchange for sex) are at high-risk for HIV, especially male PWID engaging in men who have sex with men (MSM) behaviors. Most research focusing on transactional sex and injection drug use has focused on women and has excluded male PWID. The goal of the present study is to identify factors associated with transactional sex among male PWID, as they influence high risk sexual behaviors. Methods: PWID in Los Angeles and San Francisco were recruited using targeted sampling methods in 2011–2013 and completed surveys that covered demographics, drug use, HIV risk, violence, and sex exchange, and other items. Logistic regression was used to determine factors independently associated with transactional sex in the last 6 months among male PWID. Results: Of the 572 male PWID included in the sample, 47 (8%) reported transactional sex in the past 6 months, with an average of 4 male sexual partners and 7 female sexual partners. In multivariable analysis, transactional sex among male PWID was associated with coerced sex in the last 12 months (Adjusted Odds Ratio [AOR]=11.26; 95% confidence interval [CI]=1.96, 64.76), gay or bisexual identity (AOR=5.57; 95% CI=2.61, 11.88), non-injection drug use in the last 30 days (AOR=3.15; 95%; CI=1.19, 8.36), and at least one episode of violent victimization in the last 12 months (AOR=2.54; 95% CI=1.24, 5.24). Male PWID who reported transactional sex were less likely to report heroin injection in the last 30 days (AOR=0.34; 95% CI=0.16, 0.72). Conclusion: Male PWID transactional sex was strongly associated with gay and bisexual identity, sexual coercion, violent victimization, and not injecting heroin. Interventions focused on this high-risk group are urgently needed and should include substance use disorder treatment, victimization services, and harm reduction services.

Willing to present orally: Yes

Financial Support: NIDA grant numbers R01DA027689, R01DA038965, R25DA026401, and T32DA007233-31.

Prefix: Mr.

First Name: Ricky

Last Name: Bluthenthal

Degrees: MA MD Ph.D etc:: Ph.D.

Email: rbluthen@usc.edu

Company Affiliation: Keck School of Medicine University of Southern California

Mailing Address: Soto Street Building,SSB2001 N. Soto Street, 3rd Floor, MC 9239

City: Los Angeles

State: CA

Zip/Postal: 90033

Country: United States

Phone: (323) 442-8236

Fax: (323) 442-8201

Membership Year: 2013

Sponsor: Dr. Martin Iguchi and Dr. Robert Booth

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 241
Predictors of neuroendocrine reactivity to social stress among smokers: Examining the roles of sex, adverse childhood experiences, and intranasal oxytocin

Caitlyn Hood, University of Kentucky, caitlyn.hood@uky.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Sex Differences

Abstract: AIM Adverse experiences in childhood relate to greater neuroendocrine responses to social stress in substance users; the neuropeptide oxytocin might attenuate this relationship. Given sex differences in neuroendocrine stress responses and oxytocin responses, it is unknown whether this association is similar for males and females. Therefore, this study evaluated the impact of a three-way interaction between sex, adverse childhood experiences, and acute oxytocin administration on neuroendocrine stress responses in smokers. METHODS Adult cigarette smokers (N=144; Mage=31.0; SDage=7.4; 63.2% female) participated in a laboratory visit. Participants completed the Adverse Childhood Experiences Questionnaire (ACE) and were randomized to receive intranasal oxytocin or placebo before undergoing the Trier Social Stress Task (TSST). Cortisol levels were assessed at pre- and post-oxytocin administration and at three time points following the TSST. Generalized linear mixed models were developed to predict post-TSST cortisol levels. Predictors included treatment assignment (placebo vs. oxytocin), sex (male vs. female), ACE scores, pre-oxytocin cortisol levels, and minutes since oxytocin administration. RESULTS Univariate analyses indicated cortisol responses following the TSST significantly differed by sex (b=-0.09, SE=0.03, t=-3.38, p=.001), but not by oxytocin administration (b=-0.01, SE=0.03, t=-0.42, p=.68) or ACE scores (b=-0.01, SE=0.01, t=-1.63, p=.11). The hypothesized three-way interaction between sex, oxytocin, and ACE scores was significant (b=-0.07, SE=0.03, t=-2.14, p=0.03). Linear correlations between ACE scores and peak cortisol response indicated higher ACE scores were associated with attenuated cortisol response in females, regardless of treatment condition. For males, higher ACE scores were associated with heightened cortisol response, particularly in the placebo group. This effect was attenuated by oxytocin. CONCLUSIONS Results indicate that the association between adverse childhood experiences and neuroendocrine reactivity to social stress, as well as the attenuating effect of oxytocin, is differentially impacted by sex. Future research is needed to elucidate oxytocin's impact on stress responses in male and female substance users.

Willing to present orally: Yes

Financial Support: This study was supported by National Institutes of Health grants from the National Institute on Drug Abuse (NIDA P50DA016511) and National Center for Advancing Translational Sciences (NCATS UL1TR001450). Effort on this project was provided by grants from the National Institute of Drug Abuse (NIDA U01DA031779, NIDA R01DA042114, NIDA K01DA036739, NIDA T32DA035200, NIDA R25DA020537)

Prefix: Ms.

First Name: Caitlyn

Middle Initial: O.

Last Name: Hood

Email: caitlyn.hood@uky.edu

Company Affiliation: University of Kentucky

Mailing Address: 111 D Kastle Hall

Address 2: 171 Funkhouser Dr

City: Lexington

State: KY

Zip/Postal: 40508

Country: United States

Phone: 8645809578

Membership Year: 2018

Sponsor: Dr. Craig Rush, PhD

Research Interests: Psychiatric/Medical Morbidity,Treatment

Date of Membership: 11.16.18 approved

ID: 242
Misclassification of opioid overdose by ambulance dispatch systems: Implications for take home naloxone programs

Rose Crossin, Monash University and Turning Point, rose.crossin@monash.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Policy

Abstract: AIMS Takers of calls to emergency ambulance dispatch systems typically implement a protocol for call management using systems such as the Medical Priority Dispatch System (MPDS™). These system protocols triage calls and provide instructions to callers on how best to treat the emergency. MPDS opioid overdose protocols have recently been amended to include instructions on the use of naloxone if available at the scene, but only for cases categorised as overdose. However, if opioid overdose calls are coded as cardiac arrest, naloxone use is excluded by protocol. We analysed data from a database of Electronic Patient Care Records (E-PCRs) completed by paramedics to determine how initial call triage matched with subsequent diagnosis to determine the extent to which appropriate MPDS categories are used in cases of opioid (in this case typically heroin) overdose. METHODS We analysed 'heroin'-related ambulance attendances (n=5,665) that occurred in Victoria, Australia (Jan 2012 – Dec 2017) collected through analysis of the VACIS® E-PCR system. Attendances were grouped on the basis of MPDS™ category as overdose, cardiac / respiratory, or other complaint, and cross-tabulated against whether the person showed a positive naloxone response after subsequent naloxone administration by paramedics indicated on E-PCRs. RESULTS Overall, 46.5% of heroin-related attendances with a positive naloxone response had a final MPDS™ dispatch code of cardiac / respiratory arrest, with only 37.6% correctly identified at final dispatch as an overdose. Those with a reduced respiratory rate (< 6 breaths / minute) or a Glasgow Coma Score of 3 were more likely to be categorised as cardiac / respiratory arrest. DISCUSSION Most heroin-related overdoses attended by ambulance are categorised as a cardiac arrest at initial dispatch by MPDS™ coding, the first aid instructions associated with this code preclude the use of take-home naloxone. This may result in missed opportunity for administration of naloxone by lay responders.

Willing to present orally: Yes

Financial Support: Applying for CPDD early career investigator and travel awards

Name of Sponsor (If you are NOT) a CPDD Member: Suzanne Nielsen

Email Address of Sponsor : suzanne.nielsen@monash.edu

Prefix: Dr.

First Name: Rose

Last Name: Crossin

Degrees: MA MD Ph.D etc:: PhD

Email: rose.crossin@monash.edu

CC Email: RoseC@turningpoint.org.au

Company Affiliation: Monash University and Turning Point

Mailing Address: 110 Church St

Address 2: Richmond

City: Melbourne

State: VI

Zip/Postal: 3121

Country: Australia

Phone: +61 3 8416 8461

ID: 243
Developmental trajectories of illicit drug use and prescription drug misuse among young adult medical cannabis patients and non-patient users in Los Angeles

Ekaterina Fedorova, Drexel University, evf26@drexel.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Policy

Abstract: Aim: Despite a growing interest to medical cannabis and its associated risks and benefits, no studies have examined the role of medical cannabis patient (MCP) status and self-reported medical cannabis use in longitudinal patterns of illicit/prescription drug use/misuse. Methods: 210 young adult MCP and 156 non-patient users (NPU) were recruited in Los Angeles between 2014-15. Analysis was limited to those who completed baseline and two annual follow up structured interviews, which resulted in a sample of n=322. Group-based modeling via PROC TRAJ procedure in SAS identified distinct developmental trajectories of illicit drug use and prescription drug misuse. Fixed effects regression analyses evaluated changes in cannabis practices and mental health outcomes by trajectory group. Results: Results supported a two-trajectory solution (high/low) for both illicit drug use and prescription drug misuse. Membership in high illicit drug use and high prescription drug misuse trajectories was associated with greater likelihood of alternative cannabis forms use, and with significantly higher drug use severity (DAST) and BSI anxiety scores, while BSI depression scores were significantly higher only for high illicit drug use trajectory group. While none of the trajectories were associated with MCP status, low illicit drug use trajectory members were more likely to report self-reported medical cannabis use. Finally, only high prescription drug misuse trajectory was associated with higher frequency of cannabis use. No differences were found on the severity of cannabis dependence scale (SDS) for either trajectory type. Conclusion: Results demonstrate that self-reported medical cannabis use (but not MCP status) is protective against illicit drug use while only high prescription drug misuse trajectory was associated with higher frequency of cannabis use. Therefore, future studies on cannabis use among young adults should consider a shift in focus from MCP status alone to self-reported medical cannabis use, and from cannabis frequency to the use of alternative cannabis forms.

Willing to present orally: Yes

Financial Support: NIDA (DA034067)

Prefix: Mrs.

First Name: Ekaterina

Last Name: Fedorova

Degrees: MA MD Ph.D etc:: DrPH

Email: evf26@drexel.edu

CC Email: ekaterina_fedorova@yahoo.com

Company Affiliation: Drexel University

Mailing Address: 3215 Market St. 4th Floor

City: Philadelphia

State: PA

Zip/Postal: 19104

Country: United States

Phone: 267-239-1978

Fax: 267-359-6000

Membership Year: 2017

Sponsor: Dr. Leo Beletsky, PhD

Research Interests: Epidemiology,Prevention

ID: 244
Substance use interventions for refugees in low- and middle-income countries: A review of the literature

M. Claire Greene, Columbia University, claire.greene@nyspi.columbia.edu

---

Abstract Category: Literature Review

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: N/A - literature review not limited to a specific substance

Topic: Treatment

Abstract: Aim: Unhealthy substance use is a prevalent, but neglected problem in many refugee communities. The objective of this review was to synthesize available literature on alcohol and other drug prevention and treatment strategies in refugees living in low- and middle-income countries (LMICs). Methods: We reviewed the academic and unpublished literature to identify programmatic reports and evaluations of substance use interventions in refugee and other relevant disadvantaged populations (e.g., conflict-affected persons) in LMICs. Results: We identified six substance use interventions in refugee populations and twenty-nine relevant substance use interventions delivered to other disadvantaged populations in LMICs. The most common type of interventions were brief interventions (n=13), but we also identified universal prevention (n=5), selective prevention (n=3), community-based treatment (n=8), psychological outpatient treatment (n=1), harm reduction (n=3) and capacity building (n=2) interventions in sub-Saharan Africa, South and Southeast Asia, Eastern Europe, Central Asia, and Latin America. Most studies provided information about the implementation of these interventions and did not include an effectiveness or impact evaluation. We identified several limitations related to measurement, generalizability, and a lack of studies on severe substance use disorder and drugs other than alcohol. Conclusions: Findings of this review suggest that it is feasible to provide substance use services to refugee and other disadvantaged populations in LMICs. The results of this review informed the development of six key recommendations for future operational research to evaluate the implementation and impact of substance use prevention and treatment programs in refugee populations in LMICs.

Willing to present orally: Yes

Financial Support: Supported by: United Nations High Commissioner for Refugees, National Institute on Drug Abuse (T32DA002792), National Institute of Mental Health (T32MH096724)

Prefix: Ms.

First Name: M. Claire

Last Name: Greene

Degrees: MA MD Ph.D etc:: MPH

Email: claire.greene@nyspi.columbia.edu

CC Email: claire.greene@nyspi.columbia.edu

Company Affiliation: Columbia University

Mailing Address: 70 Pine Street

Address 2: Apt. 1708

City: New York

State: NY

Zip/Postal: 10005

Country: United States

Phone: 8016943590

Membership Year: 2017

Sponsor: Dr. Eric Strain, PhD

Travel Award: Won Women and Gender 2018

Research Interests: Psychiatric/Medical Morbidity,Treatment

ID: 245
Mandated substance use disorder treatment for women: Associations with treatment retention

Dean Rivera, University of Southern California, drrivera@usc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Treatment

Abstract: AIM: Mandated substance use disorder (SUD) treatment is considered an efficacious strategy used in lieu of prosecution by the criminal justice (CJ) system and as a requirement for regaining child custody by Child Protective Services (CPS). Further, no known studies on mandated treatment among CPS involved women have been conducted - pointing to important research gaps. Aim 1: Determine differences in SUD treatment retention among women by mandated status. Hypothesis 1: Women mandated to treatment by either CPS or CJ will stay in treatment more days than those that enter voluntarily. METHODS: Data were from women (N = 245) admitted to a gender-responsive residential SUD treatment facility in Los Angeles. Participants were on average 32.2 years of age (SD = 8.9), Hispanic (57.6%), reported use of methamphetamines (77.6%), marijuana (55.9%) and/or alcohol to intoxication (50.6%), and were mandated to treatment by CJ (46.5%) and CPS (33.5%). Data obtained via research interviewer administered assessment using validated psychometric scales, and clinic records for days in treatment as a measure of retention. Using SAS 9.4, a hierarchal regression analysis was utilized for examining the association between primary independent variables, mandating agencies and self-referral, and dependent variable, days in treatment. RESULTS: Compared to women not mandated (Mean = 96.11, SD = 72.09 days), those mandated to SUD treatment regardless of source (CJ or CPS) stayed in treatment significantly longer (CJ: Mean = 133.86, SD = 79.43 days, p

Willing to present orally: Yes

Financial Support: This research study was funded by the 2018 Summer Research Award granted by the USC Suzanne Dworak-Peck School of Social Work.

Name of Sponsor (If you are NOT) a CPDD Member: Hortensia Amaro, Ph.D., membership ID number: 01630259

Email Address of Sponsor : hamaro@fiu.edu

Prefix: Mr.

First Name: Dean

Middle Initial: R

Last Name: Rivera

Degrees: MA MD Ph.D etc:: MSW

Email: drrivera@usc.edu

CC Email: drrivera@usc.edu

Company Affiliation: University of Southern California

Mailing Address: 1220 W. 28th St., #24

City: Los Angeles

State: California

Zip/Postal: 90007

Country: United States

Phone: 5107129824

ID: 246
Student led initiatives to incorporate addiction medicine training into undergraduate medical education in Detroit, MI

Irvin Lien, Wayne State University School of Medicine, ilien@med.wayne.edu

---

Abstract Category: Program Descriptions

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: The opioid epidemic is a complex problem that requires multifaceted solutions. Harm reduction and treatment interventions help treat the underlying root of opioid use disorder (OUD) and ensure patients have access to optimal treatment resources. Unfortunately, most medical school curricula do not provide an adequate foundation to equip medical students to identify and treat substance use disorders (SUDs). Despite the fact that physicians across all specialties work with these patients, only those in psychiatry or addiction medicine fellowships typically receive specialized SUDs education. One solution is to improve medical school curricula to better educate future physicians. “Detroit vs. Addiction” is a Wayne State University School of Medicine student-run organization that initiated bridging the gap in SUDs training for physicians in training. Through New Light Recovery Center, a methadone and buprenorphine clinic, first and second years volunteer to assist patients in the extensive process of addiction treatment. Fourth years are offered an elective at Tolan Park, Wayne State’s substance use clinic, to get additional experience. Naloxone administration training is now integrated into the required fourth year Emergency Medicine rotation. Medical students are offered the MAT-Waiver training to enable them to prescribe buprenorphine in the future. A pre- and post-experience survey helps assess how perspective of SUDs have been impacted by these programs. “Detroit vs. Addiction” is also collaborating with Detroit Receiving Hospital to initiate a buprenorphine provider network from the Emergency Department. The goal is for students to develop the skills to understand how to prescribe buprenorphine and build confidence to medically manage OUD, regardless of their chosen speciality. As the opioid epidemic continues to grow, more physicians need to be equipped to understand how to prescribe medication assisted treatment. By improving our school’s curriculum, we can train a new generation of physicians who are prepared to handle this expansive issue.

Willing to present orally: Yes

Financial Support: Wayne State University School of Medicine

Name of Sponsor (If you are NOT) a CPDD Member: Mark Greenwald

Email Address of Sponsor : mgreen@med.wayne.edu

Prefix: Mr.

First Name: Irvin

Last Name: Lien

Email: ilien@med.wayne.edu

Company Affiliation: Wayne State University School of Medicine

Mailing Address: 4225 Chrysler Dr.

Address 2: Apt A

City: Detroit

State: Michigan

Zip/Postal: 48201

Country: United States

Phone: 206-579-6591

ID: 247
Patient characteristics associated with the provision of opioid agonist therapy during hospitalization in a cohort of people who use opioids in Vancouver, Canada

Kate Colizza, University of Calgary, kate.colizza@ahs.ca

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim: Opioid agonist therapy (OAT) is not routinely provided in hospital settings, despite reducing the risk of leaving hospital against medical advice, illicit opioid use, and mortality. This study explored patient factors associated with OAT provision in hospital settings among a cohort of people who use illicit opioids. We explored whether participants at greater risk of opioid-related harm would be less likely to receive OAT in hospital. Methods: Data were derived from VIDUS and ACCESS, prospective cohorts of people who use drugs (PWUD) in Vancouver, Canada. The sample included participants who used illicit opioids and were hospitalized in the last six months. The outcome of interest was self-report of being prescribed OAT in hospitalwithin the last six months. Multivariable Generalized Estimating Equations (GEE) analyses were conducted to identify factors independently associated with inpatient OAT provision. Results: Between 2016 and 2018, 760 PWUD reported recent illicit opioid use, among whom 324 (42.7%) had been hospitalized at least once during the study period. At baseline, 234 participants had a recent hospitalization, among whom 161 (68.8%) were prescribed inpatient OAT. In multivariable GEE analyses, daily methamphetamine injection (adjusted odds ratio [AOR] = 0.43, 95% confidence interval [CI]: 0.21–0.88) and overdose in the last 6 months (AOR = 0.46, 95% CI: 0.26-0.80) were each independently negatively associated with receiving OAT in hospital, after adjusting for multiple potential confounders. Conclusion: Individuals with recent non-fatal overdose and polysubstance use are at high risk of fatal overdose and other opioid-related harms, yet are less likely to receive OAT in hospital. This represents an important gap for targeted intervention in provision of hospital care to PWUD.

Willing to present orally: Yes

Financial Support: The study was supported by the US National Institutes of Health (U01-DA038886, U01-DA0251525) and the Canadian Institutes of Health Research (MOP–286532).

Prefix: Dr.

First Name: Kate

Last Name: Colizza

Email: kate.colizza@ahs.ca

CC Email: katecolizza@gmail.com

Company Affiliation: University of Calgary

Mailing Address: 712 34 St NW

City: Calgary

State: AB

Zip/Postal: T2N 2X9

Country: Canada

Phone: 403 478 4500

Membership Year: 2018

Sponsor: Dr. Kathleen Brady, PhD

Research Interests: Epidemiology,Treatment

ID: 248
Benzodiazepine use does not decrease treatment retention in a low-threshold methadone program

Kenneth Morford, Yale University School of Medicine, kenneth.morford@yale.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Treatment

Abstract: AIM: Patients with opioid use disorder receiving methadone maintenance therapy (MMT) commonly use benzodiazepines (BZD). Evidence regarding the effect of BZD use on MMT outcomes is mixed. Low-threshold opioid treatment programs (OTP) focus on harm reduction and offer services to patients despite ongoing BZD use consistent with U.S. Food & Drug Administration (FDA) recommendations. For patients entering low-threshold MMT, we hypothesized that patients with BZD use at treatment entry would have similar 12-month retention compared to those without. METHODS: We conducted a retrospective cohort study of 3377 patients consecutively initiated on MMT from January 2015 to December 2017 at the APT Foundation in New Haven, CT. We used Chi-square tests to examine the association between 12-month retention and BZD use (by urine toxicology); as well as demographics, other substance use, and six psychosocial domains (using BASIS-24). We performed a Kaplan Meier analysis to compare time to discharge by BZD use with a log-rank test. RESULTS: Overall, 19% (n=629) had baseline BZD use. Female sex, white race, and unemployment were associated with BZD use (all p's < 0 .001). Oxycodone (p < 0 .001) and cannabis use (p=0.008) were also associated with BZD use. Thirty-one percent of patients with BZD use (n=171) and 31% without BZD use (n=757) were retained at 12 months (p=0.95). Median treatment duration was 182 days (95% CI, 152-239) and 175 days (95% CI, 156-196) for patients with and without BZD use, respectively. Kaplan-Meier curve showed no significant difference in treatment duration between groups (log-rank test p=0.73). CONCLUSION: Baseline BZD use had no significant effect on 12-month treatment retention or duration among patients receiving MMT in a low-threshold OTP. These data support FDA recommendations encouraging opioid agonist therapy for patients regardless of BZD use at intake. OTPs should focus on improving retention for patients with and without BZD use.

Willing to present orally: Yes

Financial Support: The project described was supported by the Research in Addiction Medicine Scholars (RAMS) Program, R25DA033211.

Prefix: Dr.

First Name: Kenneth

Last Name: Morford

Degrees: MA MD Ph.D etc:: MD

Email: kenneth.morford@yale.edu

Company Affiliation: Yale University School of Medicine

Mailing Address: 367 Cedar Street

City: New Haven

State: CT

Zip/Postal: 06520

Country: United States

Phone: 845-380-3255

Membership Year: 2018

Sponsor: Dr. David Fiellin, PhD

Research Interests: Epidemiology,Treatment

ID: 249
Elevated neutrophil to lymphocyte ratio (NLR) in cocaine use disorder as a marker of chronic inflammation

Scott Lane, University of Texas McGovern Medical School, scott.d.lane@uth.tmc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Other

Other Topic: Inflammation, Aging

Abstract: AIMS: Neutrophil to Lymphocyte ratio (NLR) is an inflammatory marker that may predict incidence, morbidity, and mortality in systemic disease and psychiatric disorders. Evidence of increased inflammation in CUD supports the premise for evaluating NLR as an inflammatory marker. Aging is associated with a decline in immune system function, often complicated with proinflammatory comorbidities. Here, we examined whether chronic cocaine use adds exacerbated inflammatory burden among older adults (50-65 years old) with CUD relative to a nationally representative sample of non-cocaine users, as measured by NLR. METHODS: The dataset included 107 participants meeting diagnostic criteria for CUD. NLR values were derived from routine complete blood count tests. Additional variables of interest in the CUD group included cocaine severity, psychiatric health, and social functioning. We used the National Health and Nutrition Examination Survey (NHANES) to extract data from adults (50-65) without CUD. A doubly robust propensity score method (inverse-probability-weighted regression adjustment, or IPWRA) was used to estimate group differences on NLR while controlling for potential confounding variables (age, gender, race, income, depression, nicotine, marijuana and alcohol use). All subjects with immunocompromising conditions were excluded from the analyses (e.g., HIV, STDs, TB, active infections). RESULTS: The propensity score model estimates revealed a significant difference in NLR between the groups b = 0.67, robust S.E. = 0.14, Z-score = 4.88, $p < .0001$; mean ± SE were CUD = 2.38 (± 0.13); controls = 1.71 (± 0.02). The b weight of 0.67 indicates a moderate effect size, confirming the initial hypothesis of greater inflammation in CUD subjects aged 50-65 versus an age matched nationally representative sample. CONCLUSIONS: The NLR may serve as a non-specific but easily obtainable marker of inflammatory processes in cocaine and other substance use disorders in individuals at heightened risk for inflammatory insult, e.g., aging substance users.

Willing to present orally: No

Financial Support: NIH / NIDA P50 DA-009262 NIH / NIDA R01 DA-030787 UTHealth McGovern Research Scholar Award

Prefix: Dr.

First Name: Scott

Middle Initial: D.

Last Name: Lane

Degrees: MA MD Ph.D etc:: Ph.D.

Email: scott.d.lane@uth.tmc.edu

Company Affiliation: University of Texas McGovern Medical School

Contact Title: Professor

Mailing Address: 1941 East Road

City: Houston

State: TX

Zip/Postal: 77054

Country: United States

Phone: (713) 486-2535

Fax: (713) 486-2618

Membership Year: 2001

Sponsor: Don R. Cherek and John Grabowski

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 250
New Haven Law Enforcement Assisted Diversion (LEAD): Formative assessment of program implementation and adaptation

Paul Joudrey, Yale School of Medicine, paul.joudrey@yale.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Police diversion program (non specific to drug type)

Topic: Other

Other Topic: Criminal Justice

Abstract: AIM: Municipalities are experimenting with police diversion programs given the early success of the Seattle Law Enforcement Assisted Diversion (LEAD) program in which officers connect individuals with substance use disorders to treatment instead of arrest. Unlike Seattle which had high substance use penalties, it is unknown how to adapt the LEAD model in municipalities with reduced penalties for nonviolent substance use related crimes. We examined 1) what portion of eligible arrest events among LEAD-trained officers were diverted and 2) officer perceptions of diversion attempts during program implementation. METHODS: We completed a mixed method formative program evaluation during the first eight months of implementation (October 2017 to July 2018). We obtained police data on LEAD-trained officer arrest events and classified each according to national LEAD guidelines as LEAD ineligible, eligible and possibly substance use-related, and eligible and substance use-related. We then completed 10 semi-structured interviews with LEAD-trained officers, purposively sampled to ensure variation by age and experience. Interview transcripts were analyzed using directed content analysis in accordance to Promoting Action on Research Implementation in Health Services framework. RESULTS: Among 574 arrest events, two individuals were diverted from the 19 (3.3%) which were eligible and substance use-related and 214 (37.3%) which were eligible and possibly substance use-related. The semi-structured interviews revealed reasons for few diversions. Potential participants were (1) already engaged with treatment services, (2) not ready for behavior change at arrest, and (3) perceived arrest as easier than LEAD participation. Arresting officers also perceived arrest as less time consuming than diversion. CONCLUSION: Few eligible arrest events resulted in diversion into the New Haven LEAD program. Municipalities with reduced penalties for nonviolent substance use related crimes need to minimize administrative barriers to diversion and promote the relative advantage of diversion within the community, including time required for officers to divert individuals.

Willing to present orally: Yes

Financial Support: Yale School of Medicine National Clinician Scholars Program

Name of Sponsor (If you are NOT) a CPDD Member: David Fiellin MD

Email Address of Sponsor : david.fiellin@yale.edu

Prefix: Dr.

First Name: Paul

Middle Initial: J

Last Name: Joudrey

Degrees: MA MD Ph.D etc:: MD MPH

Email: paul.joudrey@yale.edu

Company Affiliation: Yale School of Medicine

Mailing Address: PO Box 208088

Address 2: 333 Cedar Street

City: New Haven

State: CT

Zip/Postal: 06520

Country: United States

Phone: 216-262-7484

ID: 251
Stigma, discrimination, treatment effectiveness, and policy support: Comparing behavior analysts' views on substance use disorders and mental illness

Catalina Rey, University of Vermont, catalinanrey@gmail.com

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: substance use disorders otherwise not specified

Topic: Other

Other Topic: attitudes and stigma

Abstract: Aim: Only 10% of people who need treatment for a substance use disorder (SUD) receive it. Efforts are being made to increase access to effective treatment and it has been suggested that behavior analysts may be particularly well suited to working with patients with SUDs given their training in the analyses and reduction of problem behavior. Because their philosophical background proposes that problem behavior is determined by genetic and environmental factors as opposed to the will the individual, one would hypothesize that behavior analysts would not view individuals with SUD more negatively than those with mental illness. The purpose of this study was to compare behavior analysts' views on SUD versus mental illness. Methods: Behavior analysts completed 11 survey items assessing their attitudes on SUD, and the same 11 items assessing their attitudes on mental illness. Survey items measured stigma, acceptability of discrimination, the effectiveness of treatment, and support for policy issues. Paired t-tests were used to compare participants' visual analogue scale responses for each item. Results: Behavior analysts (N=288) had significantly more negative attitudes toward people with SUD than people with mental illness on all items on the survey. More specifically, respondents reported a greater desire for social distance and greater acceptability of discrimination for people with SUD than people with mental illness. They also reported less potential for recovery, lower support for policies to improve equity in insurance coverage, and were less supportive of using government funding to improve treatment, housing, and job support for people with SUD. Conclusion: Behavior analysts responded significantly more negatively toward individuals with SUD than those with mental illness for all survey items. Efforts to increase treatment access by encouraging more behavior analysts to work with this population will need to take these findings into consideration.

Willing to present orally: Yes

Financial Support: This work was partially supported by a grant from the National Institute on Drug Abuse, T32DA07242.

Prefix: Dr.

First Name: Catalina

Middle Initial: N

Last Name: Rey

Degrees: MA MD Ph.D etc:: PhD

Email: catalinanrey@gmail.com

Company Affiliation: University of Vermont

Mailing Address: 1195 North Avenue

Address 2: APT 208

City: Burlington

State: VT

Zip/Postal: 05408

Country: United States

Phone: 3057201011

Membership Year: 2018

Sponsor: Dr. Sarah Heil, PhD

Research Interests: Behavioral Pharmacology,Treatment

ID: 252
Design of the buprenorphine physician-pharmacist collaborative care of patients with opioid use disorder

Li-Tzy Wu, Duke University School of Medicine, litzy.wu@duke.edu

---

Abstract Category: Program Descriptions

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: INTRODUCTION: Opioid use disorder (OUD) and overdose deaths are a national crisis. While substantial resources have been invested, access to OUD care is complicated by a limited number of treating providers. Pharmacies can serve as an additional care setting for OUD treatment. We report design and rationale of an ongoing NIDA National Drug Abuse Treatment Clinical Trials Network (CTN) study to explore buprenorphine physician-pharmacist collaboration in OUD care. RATIONALE: Pharmacists' expertise in dispensing controlled medications and conducting medication education provide a foundation to engage this group in OUD care. This pilot study will collect feasibility data to develop an OUD collaborative care model and enable physicians to treat a higher number of patients, while helping pharmacists perform OUD management duties. METHODS: This is a prospective 24-week, open-label study of pharmacist-provided buprenorphine maintenance treatment of OUD. Sample: Seventy adults with OUD from three buprenorphine treatment clinics. Intervention: Six pharmacists will receive training concerning OUD and buprenorphine treatment with physician coaching. Following buprenorphine stabilization by the physician, participants will receive 6-month buprenorphine management at the pharmacy by the pharmacist, and will return to the physician's care at study end. Physician's supervision and release of buprenorphine prescriptions based on information gathered during pharmacy visits will be regulated by a collaborative practice agreement, which specifies roles and functions of physicians and pharmacists. The model will be tested in different clinical settings (academic, community-based, primary care). Aims and Measures: Feasibility and acceptability will be measured by recruitment rate, study retention, and medication adherence rate, and participants' safety and substance use. Pharmacist's fidelity to treatment; participant, physician, and pharmacist satisfaction with OUD care; and pharmacist's use of prescription drug monitoring programs will be recorded. CONCLUSIONS: Data gathered will be used to design randomized controlled studies to test effectiveness of physician-pharmacist collaborative care and OUD management.

Willing to present orally: No

Financial Support: This study was made possible by research support from the U.S. National Institutes of Health (UG1DA040317; HHSN271201400028C).

Prefix: Dr.

First Name: Li-Tzy

Last Name: Wu

Degrees: MA MD Ph.D etc:: RN, ScD, MA

Email: litzy.wu@duke.edu

CC Email: litzy.wu@duke.edu

Company Affiliation: Duke University School of Medicine

Contact Title: Professor

Mailing Address: Psychiatry BOX 3903

City: Durham

State: NC

Zip/Postal: 27710

Country: United States

Phone: 9198899369

Membership Year: 2000

Sponsor: Jim Anthony, Ph.D. & Georgiy Bobashev. Ph.D.- Drs. George Woody and Dr. Walter Ling

Research Interests: Molecular Biology Pharmacology Behavioral Pharmacology

ID: 253
Latent classes of opioid misuse motives across the US population

Ty Schepis, Texas State University, schepis@txstate.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: Aim: Rates of US opioid overdose continue to rise, with over 17,000 prescription opioid misuse (POM)-related overdoses in 2016 (Seth et al., 2018). A key, under-examined factor in POM are the underlying motives for POM. Han et al. (2018), using the 2015 National Survey on Drug Use and Health (NSDUH), found that the most common primary POM motive was "to relieve pain" (63.4%), with only limited numbers endorsing "to get high" (11.6%) or "to relax" (10.8%). However, many individuals also engage in POM with multiple underlying motives, and current categorizations may not accurately capture motive heterogeneity (e.g., Han et al., 2018; McCabe et al., 2009). Methods: To address this gap in knowledge, we generated empirical categorization profiles by applying latent class analysis motive-based variables in the 2015-16 NSDUH. Results found that a seven-class solution best fit the data. Results: The most common POM motive class was pain relief only (49.6%). Other classes (in order of declining prevalence) were: mixed, relax-pain relief, high, sleep-pain relief, dependent, experimenters. Those in the pain relief only class were less likely than members of other POM motive classes to endorse benzodiazepine misuse, any SUD diagnosis, SUD treatment, suicidal ideation and major depression (all past-year). Conversely, those in the dependent, mixed and high classes were most likely to endorse these outcomes. Conclusion: Thus, pain relief only motives are common, and those endorsing solely pain relief motives may need better pain management. Conversely, those engaged in POM to get high, for mixed motives or because of POM-related dependence are particularly substance-involved, with high rates of mental health concerns. These individuals will likely need multidisciplinary and significant interventions.

Willing to present orally: Yes

Financial Support: Supported by research grants R01DA042146, R01DA043691 and R01DA031160 from the National Institutes of Health.

Prefix: Dr.

First Name: Ty

Middle Initial: S

Last Name: Schepis

Degrees: MA MD Ph.D etc:: Ph.D.

Email: schepis@txstate.edu

Company Affiliation: Texas State University

Mailing Address: Department of Psychology

Address 2: 601 University Drive

City: San Marcos

State: TX

Zip/Postal: 78666

Country: United States

Phone: 512-245-6805

Research Interests: Etiology,Epidemiology

Date of Membership: 11.16.18 approved

ID: 254
The relationship between nicotine dependence level and DSM-V Nicotine Use Disorder diagnosis in a diverse simple of smokers seen in primary care

Marcel de Dios, University of Houston, madedios@uh.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Ethnic Differences

Abstract: A smoker's level of nicotine dependence is an important prognostic variable1-3 that can guide treatment2-4. Yet, concerns have been raised5-7 regarding measures of nicotine dependence and the utility of the DSM-V diagnostic criteria for Nicotine Use Disorder (NUD)7-8. AIM: The current study examined the convergent validity of widely used continuous measures of nicotine dependence and DSM-V NUD diagnosis in a diverse sample of primary care patients. METHOD: A sample of 670 adults recruited from primary care clinics in four US cities completed the Fagerstrom Test of Nicotine Dependence (FTND[M1])9, the Composite International Diagnostic Interview (CIDI-2[M2])10 and a demographics questionnaire. Level of nicotine dependence (FTND scores), heaviness of smoking index (HSI[M3])11 scores, diagnosis of NUD and NUD symptom counts were derived from the FTND and CIDI. Bivariate correlations examined the associations between study variables and a logistical regression model explored the relationship between FTND and HSI scores and DSM-V diagnosis. RESULTS: Participants were 46.6% (n=312) female with a mean age of 45.8 (SD=12.8). The sample included 383 (57.2%) African Americans, 202 (30.1%) non-Latino Whites, 58 (8.7%) Latino/Hispanics and 27 (4%) of other ethnic/racial categories. The mean FTND scores was 3.16 (SD=2.14); mean HSI score = 1.95 (SD=1.41). A total of 518 participants (77.3%) met DSM-V criteria for NUD and the mean NUD symptom count was 3.47 (SD=2.12). After controlling for age, gender, race, and education, FTND scores were significantly associated with NUD diagnosis (OR: 1.45, CI: 1.17 - 1.8; p=.001). HSI index scores were not found to be significantly associated with NUD diagnosis (OR: 0.976, CI: .712 - 1.33; p=.879). CONCLUSION: Findings support the convergent validity of the FTND and NUD diagnosis. The convergent validity of the HIS index was not supported among our sample of diverse smokers seen in primary care clinics.

Willing to present orally: No

Financial Support: There is no grant or other mechanism of financial support associated with this current study.

Prefix: Dr.

First Name: Marcel

Middle Initial: A.

Last Name: de Dios

Degrees: MA MD Ph.D etc:: Ph.D.

Email: madedios@uh.edu

Company Affiliation: University of Houston

Mailing Address: Department of PHLS

City: Houston

State: TX

Zip/Postal: 77230

Country: United States

Phone: (713) 563-8768

Fax: (713) 792-1152

Membership Year: 2011

Sponsor: Dr. Michael Stein and Dr. Alan J. Budney

Research Interests: Psychiatric/Medical Morbidity,Treatment

Date of Membership: Membership dues waived for 2018 per Dr. Finnegan 12.4.17

ID: 255
Effectiveness of medication-assisted treatment for opioid use in prison and jail settings: A meta-analysis and systematic review

Kelly Moore, East Tennessee State University, kelly.e.moore@yale.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim: Rates of opioid use in the criminal justice system (CJS) are disproportionately high relative to the general population, and opioid use carries unique risks among justice-involved populations (e.g., relapse, re-arrest, fatal overdose). Medication assisted treatments (MATs) are effective for reducing opioid use and its consequences, however, it is rarely offered in corrections. There is a need to examine the evidence base for the effectiveness of MATs during incarceration. Methods: This meta-analysis examined the effectiveness of MATs (methadone, buprenorphine, naltrexone) delivered during incarceration on community treatment engagement, opioid use, recidivism, and health risk behaviors following release. Randomized controlled trials (RCTs) and quasi-experimental studies published through December 2017 that examined induction to or maintenance on methadone (n=18 studies), buprenorphine (n=3 studies), or naltrexone (n=3 studies) in correctional settings were identified from PsycINFO and PubMed databases. There were enough methadone RCTs to meta-analyze. Quasi-experimental studies were systematically reviewed. Results: Among methadone RCTs involving 807 inmates (treatment n = 407, control n = 400), methadone provided during incarceration increased community treatment engagement (n=3 studies; OR = 8.69, 95% CI = 2.46; 30.75), reduced opioid use (n=4 studies; OR = 0.22, 95% CI = 0.15; 0.32) and injection drug use (n=3 studies; OR = 0.26, 95% CI = 0.12; 0.56), but did not reduce recidivism (n=4 studies; OR = 0.93, 95% CI = 0.51; 1.68). Buprenorphine and naltrexone were either superior or as effective as methadone in reducing opioid use post-release, but had mixed findings for the reduction of recidivism. Conclusion: Results provide the first meta-analytic summary of MATs delivered in correctional settings and support the use of MATs, especially for community treatment engagement and opioid use; additional research is needed to understand the reduction of recidivism.

Willing to present orally: Yes

Financial Support: NIDA grant (5T32DA019426-12; PI: Dr. Jacob Tebes) and State of Connecticut Department of Mental Health and Addiction Services

Name of Sponsor (If you are NOT) a CPDD Member: Sherry A. McKee, PhD

Email Address of Sponsor : sherry.mckee@yale.edu

Prefix: Dr.

First Name: Kelly

Middle Initial: E

Last Name: Moore

Degrees: MA MD Ph.D etc:: PhD

Email: kelly.e.moore@yale.edu

CC Email: mooreke2@etsu.edu

Company Affiliation: East Tennessee State University

Contact Title: Assistant Professor

Mailing Address: 420 Rogers-Stout Hall

Address 2: P.O. Box 70649

City: Johnson City

State: TN

Zip/Postal: 37614

Country: United States

Phone: 4234394849

ID: 256
A qualitative study of ketamine abuse in Thailand

Usaneya Perngparn, Chulalongkorn University, usaneya.p@chula.ac.th

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Club/Designer Drugs

Topic: Behavior

Other Topic: Youngster

Abstract: Background/Aims: After “War on Drugs” campaign in 2003, the use of other substances including club drugs have increased. The 2016 National Household survey on illicit drug use found 22,218 persons (0.44:1,000 population) reporting current ketamine (a club drug) users. The number of treatment as well as seizure increased during the last three years. The presentation aimed to present a qualitative study of ketamine use among youngsters. Method: Snowball technique was used to interview 250 ketamine users. The study areas included pub/bar and entertainment places. Results: Only 20% regularly used ketamine (K) and/or with ecstasy (E). Ratio of male to female users is 3:2. A small bottle, similar to an eye drop bottle of about 5 ml. K costs US$ 21-25. Reason of use: they use K for entertaining themselves. Some youngsters who never drink when they go out with friends would use a substance to get drunk. They claimed that K is not addictive. Using method: The methods of use are varied. For instance, they put K in an instant noodle cup bought from a convenient store, in a microwave for 5 minutes. After the water evaporated, only the powder was left. They would scrape it out of the cup with a teaspoon and inhaled it using a small bendable drinking straw. Some users put K in the bottom of a can and light under it to make K into powder before inhaling. However at present, it is easy to buy K in powder type. The injecting of K is rarely found. Conclusion: Ketamine is another type of club drugs that youngsters use when they go partying. Their using method and belief might cause health problems in the future. Funded by: The Office of Narcotics Control Board

Willing to present orally: Yes

Financial Support: The Office of Narcotics Control Board, Thailand

Prefix: Dr.

First Name: Usaneya

Last Name: Perngparn

Degrees: MA MD Ph.D etc:: Ph.D.

Email: usaneya.p@chula.ac.th

CC Email: chitlada.a@chula.ac.th

Company Affiliation: Chulalongkorn University

Mailing Address: College of Public Health Sciences, Inst. Building 2, Chula Soi 62, Phayathai Road. Pathumwan District

City: Bangkok

State: Thailand

Zip/Postal: 10330

Country: Thailand

Phone: 6622188200

Fax: 6622552177

ID: 257
Substance use in urban areas: Results from Chula HealthStreet surveys

Chitlada Areesantichai, Chulalongkorn University, chitlada.a@chula.ac.th

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Alcohol, cigarette, e-cigarette, marijuana, methamphetamine, club drugs

Topic: Epidemiology

Abstract: Background/Aim: The Chula HealthStreet model, the first innovation of social engagement and health, is relevant to the Thai urban context. This presentation describes the substance use experiences of general population participants who work in urban communities in Bangkok, Thailand Method: Face to face assessments were conducted among 12-65 year olds from 2017 to 2018. Results: A total of 1,837 people were surveyed. More than 80% was in the working age. Ratio of male to female is 1:1.4. Male tended to use substance more than female. 88% of males and 46% of females had experience of drinking alcohol, 60% of males had experience of smoking cigarettes. 8% of male smoked e-cigarette. The proportion of sleeping pill is significantly higher in female than in male (8.5% vs. 7.2%). The main reason of use sleeping pill was to release stress. Marijuana is the majority of drug use (14%) among urban participants. 6% of male and 2% of female had experiences of using methamphetamine. Club drugs (i.e. ecstasy, ketamine) were reported of using in their lifetime among urban men (1-3%). The differences of marijuana users between male and female are larger than other illicit drugs (10%). Conclusion: It is possible to collect information on health and substance use in urban populations through community engagement programs, such as HealthStreet. This ongoing program is vital for understanding current needs and concerns for the general population of Bangkok. The rates of substance use were higher than those found in the 2016 national Thai household survey. Fund by: The Strategy, Planning and Budgeting Unit, Chulalongkorn University

Willing to present orally: Yes

Financial Support: The Strategy, Planning and Budgeting Unit, Chulalongkorn University

Prefix: Dr.

First Name: Chitlada

Last Name: Areesantichai

Degrees: MA MD Ph.D etc:: Ph.D.

Email: chitlada.a@chula.ac.th

CC Email: usaneya.p@chula.ac.th

Company Affiliation: Chulalongkorn University

Mailing Address: College of Public Health Sciences, Ins. Building 2, Soi Chula 62, Phayathat Road oad

Address 2: Wangmai Sub-district, Pathumwan District

City: Bangkok

State: Thailand

Zip/Postal: 10330

Country: Thailand

Phone: 6622188200

Fax: 6622552177

ID: 258
Can inhibitory control training produce reductions in drinking? Influence of the control condition

Louise Mewton, University of New South Wales, louisem@unsw.edu.au

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Treatment

Abstract: Aim: Training inhibitory control has produced reductions in alcohol use amongst heavy drinkers. However, the longevity of effects remains unknown, and much research has used suboptimal control conditions. Here, we assess the effectiveness of "Beer-NoGo" inhibitory training to reduce consumption up to four weeks post-training, compared to a "Beer-Go" control task, an online version of the Brief Alcohol Intervention (BAI) and an Oddball control condition. Methods: 81 regular drinkers were randomised into one of four training conditions. In the Beer-NoGo condition, participants responded to a letter superimposed on waterrelated images and refrained from responding to another letter superimposed on beerrelated images. The mapping was reversed for the Beer-Go condition, while the Oddball control condition was presented with letters only, and inhibition was not required. The last condition was an online BAI. Alcohol use was assessed using a bogus taste test and weekly alcohol consumption. Results: Taste test consumption was greater in the Beer-Go condition than the Beer- NoGo, which did not differ from the Oddball and BAI conditions. All groups reduced alcohol intake during the study; however, the Beer-Go group reduced their drinking while the Beer-NoGo group increased in the first week. No group differences were apparent at the fourth week. Conclusion: The Beer-NoGo task did not produce effects beyond simple assessment on reducing alcohol use among regular drinkers, and previously reported training effects may be artefacts of the Beer-Go task as a suboptimal control. More robust forms of inhibitory training are necessary for becoming a useful clinical adjunct for managing alcohol abuse.

Willing to present orally: Yes

Financial Support: UNSW Scientia Fellowship

Prefix: Dr.

First Name: Louise

Last Name: Mewton

Degrees: MA MD Ph.D etc:: PhD

Email: louisem@unsw.edu.au

Company Affiliation: University of New South Wales

Mailing Address: 22-32 King St

City: Randwick

State: NS

Zip/Postal: 2032

Country: Australia

Phone: +61422801081

ID: 259
The hidden harm: Child academic performance is negatively impacted by heroin using parents

Qurat Ain, National Taiwan Normal University, aineenwz@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Other

Other Topic: Child harms and drug using parents

Abstract: Aim: Studies found that children born to the families with drug addiction have more trauma experience of neglect and violence which leads to their behavior problems and psychological distress. However, limited attention was paid to their executive functioning and academic performance. This study proposed that children in heroin use families had worse achievement than those with other types of drug use families. METHOD: Of 102 consented patients in three drug treatment clinics from Pakistan, 50 were heroin abusers while 52 abused drugs but not heroin. Parent's age, heroin use and 56-item drug using habit were reported by patients. Child sex and academic achievement was provided by their school teachers. Multiple regression was performed to test the association of child achievement and their parent's heroin use. RESULTS: Mean age and drug using habit of drug treatment patients were 35.01 years old and 143.80 respectively. Mean academic achievement of children was 30.52. Results from multiple regression showed that children with heroin use parents and being males had significantly lower academic achievement. CONCLUSION: The study finding supported our hypothesis that children performed worse academically with the heroin use parents. Another finding is that boys were impacted more than girls. In Pakistan, boys experienced more parental violence, physical harms, neglect problems as well as social stigma. Aim: Studies found that children born to the families with drug addiction have more trauma experience of neglect and violence which leads to their behavior problems and psychological distress. However, limited attention was paid to their executive functioning and academic performance. This study proposed that children in heroin use families had worse achievement than those with other types of drug use families.

Willing to present orally: Yes

Financial Support: Pir Mehr Ali shah Arid agriculture university, Pakistan Department of health promotion and health education, National Taiwan Normal University, Taiwan

Name of Sponsor (If you are NOT) a CPDD Member: Chuan-Yu Chen

Email Address of Sponsor : chuanychen@ym.edu.tw

Prefix: Ms.

First Name: Qurat

Middle Initial: UL

Last Name: Ain

Degrees: MA MD Ph.D etc:: PhD

Email: aineenwz@gmail.com

CC Email: tonylee@ntnu.edu.tw

Company Affiliation: National Taiwan Normal University

Mailing Address: No. 162 Sec.1 He-Ping East Road, Taipei, Taiwan 10610

Address 2: No. 162 Sec.1 He-Ping East Road, Taipei, Taiwan 10610

City: Taipei

State: Taipei, Taiwan

Zip/Postal: 106

Country: Taiwan

Phone: +886-2-7734-1701

ID: 260
Mixed drug intake as predicator of mental health status, Bahir-Dar, north west Ethiopia

Aster Dagnew, University of Gondar, aster.asrat3@gmail.com

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Epidemiology

Abstract: Mixed drug intake as predicator of mental health status, Bahir-Dar, North West Ethiopia Aster Asrat Dagnew (PhD) College of Social Sciences and Humanities, University of Gondar, Post Box 196, Gondar, Ethiopia E-mail: aster.asrat3@gmail.com Abstract Background. Khat, characterized by an evergreen addictive and stimulant plant, is widely consumed in Ethiopia. Studies indicate khat is highly affecting the mental health and the social skill of youth. In Ethiopia, the youth consume khat along with other substances like alcohol, cigarette and hashish. Thus, the main objective of this study was to predict the levels of anxiety, depression and social-skill from the magnitude of khat use and mixed drug intake of BDU students. Methods. 112 participants were selected using repeated survey sampling technique. The levels of anxiety and depression and social-skill were assessed by depression symptoms inventory and social avoidance and distress scale respectively. Descriptive and inferential statistics were conducted to analyze the data. Results. The study revealed that 33% dependent and 67% non-dependent khat users. Severity of dependency on khat was statistically significant positive relationship with anxiety and depression ($p < 0 .01$) and negative relationship between severity of dependency and the level of social-skill ($p < 0 .05$). Besides, amount of khat consumed and number of additional drug being used were significant predictors of depression and anxiety respectively. Out of 16% of the variation contributed to anxiety, Out of 8.4% of the variation in level of depression, 7.8% was contributed by the powerful predictor of amount of khat chewed per chewing session. Conclusion. The amount of khat and mixed drug usage are associated to higher level of depression and anxiety respectively. Therefore, students are recommended to avoid their consumption of khat. In addition, the investigators recommend for stakeholders to design and implement drug free environment. Keywords: Drug Consumption, Predicators, Mental Health Status, University Students, Ethiopia.

Willing to present orally: Yes

Financial Support: CPDD

Prefix: Dr.

First Name: Aster

Middle Initial: Asrat

Last Name: Dagnew

Degrees: MA MD Ph.D etc:: PHD

Email: aster.asrat3@gmail.com

CC Email: asratboza@yahoo.com

Company Affiliation: University of Gondar

Contact Title: Assistant Professor

Mailing Address: 196

Address 2: centeral Gondar

City: Gondar

State: 03

Zip/Postal: 196

Country: Ethiopia

Phone: +251920774056

ID: 261
Differences in the tryptophan system between primary and substance induced depression

Francina Fonseca, Institut de Neuropsiquiatria i Addiccions (INAD), Hospital del Mar Research Institute-IMIM; Universitat Autònoma Barcelona-UAB, mffonseca@parcdesalutmar.cat

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Neurobiology

Abstract: AIMS: To study the kynurenine pathway in subjects diagnosed with: cocaine use disorder (CUD); alcohol use disorder (AUD), CUD primary major depression (CUD-primary-MDD), alcohol primary major depression (AUD-primary-MDD), cocaine-induced major depression (CUD-induced-MDD); alcohol-induced major depression (AUD-induced-MDD), major depression (MDD) and matched-healthy controls (HC). METHODS: A total of 73 subjects participated in the study; 9 AUD, 14 CUD, 9 AUD-primary-MDD, 14 CUD-primary-MDD, 9 AUD-induced-MDD, 8 CUD-induced-MDD, 5 MDD and 8 HC. Clinical diagnoses were obtained with the Psychiatric Research Interview for Substance use and Mental Disorders (PRISM). Markers belonging to the serotonin-kynurenine pathway were quantified by liquid chromatography tandem mass spectrometry (LC-MS/MS). The enzymatic activity of IDO/TDO, KAT and Kynureninase was established by the calculation of Kyn/Trp, KA/Kyn and AA/Kyn ratios respectively. RESULTS: In the cocaine groups, the comparison between CUD-induced-MDD and MDD revealed significant differences for 5HT (decreased in MDD, p=0.039) and Kyn/5HT (increased in MDD, p=0.012) whereas for Kyn and 5HIAA/5HT trends were observed (increased in MDD, p=0.090 and p=0.054 respectively). In the alcohol groups, the comparison between AUD-induced -MDD and MDD revealed only a trend in the decrease of Kyn levels (p=0.069) in AUD-induced -MDD. CONCLUSIONS: The results for MDD confirm the serotonin - kynurenine hypothesis of depression which proposes a misbalance from tryptophan catabolism towards the kynurenine pathway contributing to depression symptomatology. Also, we detected different biochemical behaviour between subjects with Cocaine Use disorder with primary-MDD or induced-MDD suggesting a different mechanism in the pathogenesis of cocaine induced-MDD.

Willing to present orally: Yes

Financial Support: Instituto de Salud Carlos III–FEDER-Red de Trastornos Adictivos UE-FEDER 2016 RD16/0017/0010 and RD16/0017/0003; AGAUR-Suport Grups de Recerca (2017 SGR316 and SGR530); Fondo de Investigación Sanitaria. ISCIII (PS09/02121, PI12/01838, PI14/00178, y PI16/00603); Plan Nacional sobre Drogas (2012I054); Acció instrumental d'Intensificació de Professionals de la Salut - Facultatius especialistes (PERIS: SLT006/17/00014).

Name of Sponsor (If you are NOT) a CPDD Member: Rafael de la Torre

Email Address of Sponsor : rtorre@imim.es

Prefix: Dr.

First Name: Francina

Last Name: Fonseca

Degrees: MA MD Ph.D etc:: MD, PhD

Email: mffonseca@parcdesalutmar.cat

CC Email: ffonseca@imim.es

Company Affiliation: Institut de Neuropsiquiatria i Addiccions (INAD), Hospital del Mar Research Institute-IMIM; Universitat Autònoma Barcelona-UAB

Mailing Address: Passeig Marítim, 25-29

City: Barcelona

State: Spain

Zip/Postal: 08003

Country: Spain

Phone: +34932483379

Fax: +34932483445

ID: 262
"Instant coffee sachet" users ─ A new face of new psychoactive substances in Taiwan

Lian-Yu Chen, Taipei City Hospital, lianyu0928@gmail.com

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: New psychoactive substance

Topic: Epidemiology

Abstract: Aim: Increasing new psychoactive substances (NPS) use has been a global health issue. A new drug use pattern of ingesting multiple substances from an" instant coffee sachet" became popular in Taiwan. With increasing associated morbidities and moralities, we aimed to examine the clinical characteristics of these "instant coffee users" and their toxicology results. Methods: We included 156 treatment-seeking participants aged 20 to 65 who claimed to ingest such "instant coffee sachet" in the past 30 days in 2017 in a psychiatric center. With their consent, their urine sample was examined by liquid chromatograph mass spectrometers (LC-MS) for toxicological test. We then described their socio-demographics, psychiatric profiles and toxicological findings confirmed by LC-MS. Then, we compared their toxicology findings and their clinical manifestations. Results: The "instant coffee sachet" users were mainly male (70.5%) and 42.9% were aged 20-29. More than half of them sought treatment through emergency department. 41% of their toxicological findings showed amphetamines, 10.9% ketamine and 13.4% synthetic cathinones. None of synthetic cannabinoid was detected in the urine samples of the "instant coffee sachet" users. Furthermore, among those whose urine sample showed synthetic cathinones, 73% of them visited ED and 53% reporting suicidal attempt. Conclusion: This study introduced a new drug use pattern of "instant coffee sachet" and aimed to fill in the knowledge gap of the clinical manifestations of NPS in Asia. As such drug use pattern was linked to high risk behaviors, it is imperative to educate the public and health professionals on the danger NPS.

Willing to present orally: Yes

Financial Support: Taipei City Hospital grant 10701-62-002 (P.I.: Dr. Lian-Yu Chen) MOST grant 106-2314-B-532-010-MY2 (P.I.: Dr. Lian-Yu Chen)

Prefix: Dr.

First Name: Lian-Yu

Last Name: Chen

Degrees: MA MD Ph.D etc:: MD, PhD

Email: lianyu0928@gmail.com

Company Affiliation: Taipei City Hospital

Mailing Address: 309, Donde Rd, Xingyi Dist,

City: Taipei

State: Taiwan

Zip/Postal: 110

Country: Taiwan

Phone: 886-2-28263141-1350

Membership Year: 2017

Sponsor: Dr. Eric Strain and Dr. Silva Martins

Research Interests: Psychiatric/Medical Morbidity

ID: 263
Drug discrimination cannabinoid validation in the female Lister Hooded rat

Sharon Rowton, Covance Laboratories, sharon.rowton@covance.com

---

Abstract Category: Theoretical/Commentary

Abstract Detail: Animal Study

Drug Category: Marijuana/Cannabinoids

Topic: Behavior

Abstract: INTRODUCTION Drug discrimination studies for the nonclinical assessment of abuse potential of CNS-active drugs and/or its major metabolites conducted under Good Laboratory Practices (GLP) are recommended according to the Food and Drug Administration Guidance on the Assessment of Abuse Potential of Drugs (January 2017). In general, stimulants, sedatives, benzodiazepines, opioids, and hallucinogens act as good discriminative stimuli, and training rats to distinguish between these drugs and vehicle is relatively straight forward. Cannabinoids however can prove challenging. AIM The aim of this study was to train female Lister Hooded rats to discriminate between Delta-9, tetrahydrocannabinol (Δ9-THC) and saline. METHOD Discrimination training commenced using an intraperitoneal injection of Δ9-THC (2 mg/kg) which resulted in only 50% of the rats lever pressing; none of the rats exhibited clinical signs suggestive of impaired lever pressing ability. The dose of Δ9-THC was gradually reduced with 1.5 mg/kg selected as the optimum for training. RESULTS The dose response curve for Δ9-THC was as anticipated, with dose levels clearly defined in terms of vehicle-like (0.25 mg/kg), partial generalisation (0.75 mg/kg) and full generalisation (1.5 and 3 mg/kg). Amphetamine, morphine, midazolam and Δ9-THC (administered subcutaneously at 1.5 mg/kg) did not generalise to Δ9-THC. The synthetic cannabinoids WIN55,212-2 (CB1 agonist) and CP-47,497 (CB1 agonist) also failed to generalise; JWH-018 (CB1 and CB2 agonist) on the other hand demonstrated full generalisation to Δ9-THC. CONCLUSION In conclusion, training rats to recognise Δ9-THC as a discriminative stimulus was successfully achieved. However, due to animal variability in terms of sensitivity to THC, the dose level may require modification on a study by study basis in order to find an optimum training dose. This was an in-house validation, supported by Covance Laboratories Inc.

Willing to present orally: No

Financial Support: This was an in-house validation, supported by Covance Laboratories Inc.

Name of Sponsor (If you are NOT) a CPDD Member: Beatriz Rocha

Email Address of Sponsor : Beatriz.rocha@covance.com

Prefix: Dr.

First Name: Sharon

Last Name: Rowton

Degrees: MA MD Ph.D etc:: Ph.D

Email: sharon.rowton@covance.com

CC Email: sirowton@live.co.uk

Company Affiliation: Covance Laboratories

Mailing Address: Otley Road

City: Harrogate

State: North Yorkshire

Zip/Postal: HG3 1PY

Country: United Kingdom

Phone: 44 01423 635337

Sponsor: Dr. Beatriz Rocha and Dr. Mary-Jeane Kallman

Research Interests: Behavioral Pharmacology,Pharmacology

Date of Membership: applying for full membership Sept. 1 review 18

ID: 264
A brief point-of-prescription intervention to improve appropriate use of opioids

Erin Winstanley, West Virginia University, erinwinstanley@me.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Prevention

Abstract: Aim:Technology-based Prescription Opioid Safety Education (T-POSE) is a pharmacist-delivered self-management intervention to improve the safe use, storage and disposal of prescription opioids. The purpose of this study is to evaluate the effectiveness of T-POSE in improving the safe use of prescription opioids. Methods:A prospective multisite randomized clinical trial (n=97) was conducted comparing T-POSE to usual care. Participants were recruited from two hospitals in West Virginia and telephone followed-up interviews were conducted at one- and three-months. Patients were eligible for the study if they were being discharged with an opioid prescription, were 18-75 years old and did not self-report lifetime use of heroin or illicit prescription opioid. Results:The mean participant age was 57 years old, 40.2% were male and 63.2% were unemployed. Less than half of the participants reported having previously received information on how to safely use prescription opioids and 70% reported that they would definitely use products that dissolve unused medications. More than half (63%) reported using prescription opioids for reasons other than pain. Nearly a third (30%) self-disclosed having a family member with a substance use disorder and several patients expressed fears of becoming addicted to opioids. Preliminary follow-up data suggests that T-POSE participants were more likely to recall information on safe disposal, were less likely to store their medication on their nightstand and had higher overall satisfaction. Conclusion:Previous cross-sectional research confirmed that T-POSE was a feasible hospital-based intervention that was acceptable to patients. The results of this clinical trial suggests that T-POSE is prospectively associated with improvement in knowledge and behaviors reflecting safe prescription opioid use.

Willing to present orally: Yes

Financial Support: The research reported in this abstract was supported by the National Institute of General Medical Sciences of the National Institutes of Health under Award Number 2U54GM104942-02.

Prefix: Dr.

First Name: Erin

Middle Initial: L.

Last Name: Winstanley

Degrees: MA MD Ph.D etc:: Ph.D.

Email: erinwinstanley@me.com

CC Email: erin.winstanley@hsc.wvu.edu

Company Affiliation: West Virginia University

Contact Title: Asst/ Professor

Mailing Address: Department of Behavioral Medicine & Psychiatry

Address 2: 930 Chestnut Ridge Road

City: Morgantown

State: WV

Zip/Postal: 26505

Country: United States

Phone: 304-293-9192

Membership Year: 2005

Sponsor: Margaret Ensminger, Ph.D.- Drs. Eric Strain and Annie Umbricht

Research Interests: Health Services,Psychiatric/Medical Morbidity,Treatment

Date of Membership: applying for upgrade Assoc. to Reg. 1.1.19

ID: 265
The performance of working memory and brain structural changes in chronic ketamine users

Yi-Hsuan Liu, National Yang Ming University , t1232936@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: ketamine

Topic: Imaging

Abstract: AIM Ketamine, a drug used both in treating depression and as a drug of abuse, has properties similar to opiates. Some studies have suggested an impact of chronic ketamine exposure on brain structure and cognitive function. This study investigated the effects of ketamine exposure on working memory capacity and brain area volumes. METHODS 64 participants were recruited, 32 ketamine users (mean age = 23.12 years, SD = 5.23 years) and 32 smokers (controls) (mean age = 23.93 years, SD = 4.11 years). The N-back task, requiring a stimulus to be compared to one previously presented, was used to measure working memory performance. High resolution T1-weighted structural magnetic resonance image scans were also acquired using a 3.0-T Siemens MRI scanner to compare differences in gray matter volume (GMV) between the two groups using voxel-based morphometry (VBM). RESULTS Participants showed decreased accuracy with increased difficulty on the N-back task (e.g. accuracy was better for comparing the current stimulus with the one immediately prior to it than when it had to be compared with a stimulus presented two prior). Additionally, ketamine users had significantly lower accuracy compared to control group on the task for 1-back ($p = 0.006$) and 2-back ($p = 0.02$) trials. Imaging data showed that, also compared to controls, ketamine users had decreased GMV in the right inferior frontal gyrus, left inferior frontal gyrus, anterior cingulate gyrus and left superior temporal gyrus. However, no significant correlation was found between N-back accuracy and decreased GMV for any area. CONCLUSION Results suggest chronic ketamine exposure results in reduced working memory ability and structural changes in the brain. Whether these brain morphology changes relate to behavioral differences remains to be determined. In the future, brain areas involved in higher-order executive function network should be examined with the aim of relating structural changes to performance differences.

Willing to present orally: Yes

Financial Support: MOST 106-2410-H-003-028- MOST 107-2410-H-003-038-MY2

Name of Sponsor (If you are NOT) a CPDD Member: Chuan-Yu Chen

Email Address of Sponsor : chuanychen@ym.edu.tw

Prefix: Ms.

First Name: Yi-Hsuan

Last Name: Liu

Degrees: MA MD Ph.D etc:: Ph.D student

Email: t1232936@gmail.com

Company Affiliation: National Yang Ming University

Mailing Address: Rm. 1, 3F., No.45, Sec. 2, Shipai Rd., Beitou Dist.,

City: Taipei city

State: Taiwan

Zip/Postal: 11267

Country: Taiwan

Phone: +8869631919161

ID: 266
Characterizing age-based differences in fentanyl risk communication using qualitative methods

Sarah Bagley, Boston University School of Medicine, sarah.bagley@bmc.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Behavior

Abstract: AIM: In many states, deaths due to fentanyl overdose are increasing amid reports that people do not understand the risks associated with fentanyl use. Overdose risk communication, a two-way process of information exchange to negotiate better risk-related outcomes, has not been examined. This study aimed to explore experiences with and preferences for fentanyl-related overdose risk communication, and identify how these vary by age. METHODS: We purposively sampled two groups of people with past year fentanyl use in Boston for qualitative interviews: Those 35 years. Equal numbers of men and women were recruited in each group. We conducted a grounded content analysis of professionally transcribed interviews. Codes were analyzed to build themes around risk communication preferences and behaviors, and compare strategies currently employed vs. those desired by each age group. RESULTS: Twenty participants were enrolled, equally sampled across age categories. All but one reported experiencing overdose, and many attributed this to fentanyl. Participants wanted to talk about overdose risk with others; the most credible sources being people who had experienced addiction. While participants were open to discussing risks with health care providers, fourteen participants had experienced stigma in health care settings that undermined risk conversations. They sought communication that was non-judgmental, respectful, expressed compassion, and did “not sugar coat it”. Younger participants wanted interactive, practical training, such as how to recognize an overdose. Older participants wanted facilitated referrals or direct handoffs to treatment in post-overdose settings as a means to reduce risk, which were lacking in such settings. CONCLUSION: People using fentanyl wanted to talk about risks with others, emphasizing the need for compassion and recognizing the difficulties of making behavior change or entering treatment. Harm reduction and treatment messages desired by each age group differed, and offer opportunities for outreach efforts to tailor topics and services.

Willing to present orally: Yes

Financial Support: Supported by Boston University Clinical and Translational Sciences Institute (1UL1TR001430) and the National Institute on Drug Abuse (K23DA044324).

Name of Sponsor (If you are NOT) a CPDD Member: Sarah Bagley

Email Address of Sponsor : Sarah.Bagley@bmc.org

Prefix: Dr.

First Name: Sarah

Last Name: Bagley

Degrees: MA MD Ph.D etc:: M.D.

Email: sarah.bagley@bmc.org

Company Affiliation: Boston University School of Medicine

Mailing Address: 801 Mass. Ave., Crosstown 2 GIM

City: Boston

State: MA

Zip/Postal: 2118

Country: United States

Phone: 6179499990

Membership Year: 2013

Sponsor: Dr. Jeffrey Samet

Research Interests: Epidemiology Treatment

ID: 267
Nested case-control analysis of real world healthcare data evaluating medications to be repurposed for stimulant use disorders

Emily Hankosky, University of Kentucky, venheim1@illinois.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Treatment

Abstract: AIM. Misuse of stimulants (cocaine and amphetamines) is a pervasive public health problem, but there are no pharmacotherapies approved to treat stimulant use disorders. Health claims are a burgeoning resource to evaluate pharmacotherapies with potential to be repurposed. METHODS. We used the Truven Marketscan Commercial Claims Database (Jan 2009 – Dec 2016) to conduct nested case-control analyses evaluating the association of two medications, bupropion (Wellbutrin®, Zyban®) and amphetamine-dextroamphetamine (Adderall®), and two medication classes (anxiety and ulcer medications) with stimulant use disorder remission. Enrollees between the ages of 18-65 years were included if they had an International Classification of Disease (ICD-9 or ICD-10) diagnosis of cocaine or amphetamine use disorder, prescription drug and mental health insurance coverage, and 3 months of data availability prior to the first diagnosed stimulant use disorder. Cases were individuals with a diagnosis of remission for amphetamine or cocaine use disorder (n=758 or n=997, respectively). We implemented incidence density sampling to match cases with controls (1:4) for time at risk (n=3,032 and n=3,988 for amphetamine and cocaine use disorder, respectively). Conditional logistic regression was used to model the probability of remission given exposure to a medication after adjusting for age, sex, region, and behavioral health visits. RESULTS. For cocaine use disorder, there were no significant associations between prescription of the investigated medications or medication classes and remission. Among enrollees with amphetamine use disorder, prescription of bupropion and anxiety medications significantly increased odds of remission by 1.6 (99% confidence interval [CI] 1.1 – 2.3) and 1.4 (99% CI 1.04 – 2) times, respectively. CONCLUSION. This work demonstrates the feasibility of applying an iterative workflow to healthcare big data to evaluate medications with potential for repurposing. Future work is needed to elucidate the conditions under which bupropion and anxiety medications may improve outcomes for individuals with amphetamine use disorder.

Willing to present orally: Yes

Financial Support: NIDA T32 DA016176, NIDA F32 DA045483, and CTSA UL1TR001998

Prefix: Dr.

First Name: Emily

Middle Initial: R

Last Name: Hankosky

Degrees: MA MD Ph.D etc:: PhD

Email: venheim1@illinois.edu

CC Email: e.hankosky@uky.edu

Company Affiliation: University of Kentucky

Mailing Address: 1901 Mint Julep Lane

City: Lexington

State: KY

Zip/Postal: 40514

Country: United States

Phone: 7192382976

Membership Year: 2011

Sponsor: Dr. Joshua Gulley

ID: 268
High-dose lorcaserin: Interaction with intravenous cocaine and effects on drug self-administration

Ken Grasing, Kansas City VA Medical Center, kgrasing@kumc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Treatment

Abstract: AIM: Lorcaserin is a selective agonist for 2C serotonin receptors approved by the FDA for weight-loss therapy, at a dose of 10 mg twice-daily. In animals, relatively high doses can attenuate either cue-induced responding or drug taking. We have previously reported that single 10 mg doses of lorcaserin did not modify cocaine self-administration, but potentiated some of the positive subjective effects of cocaine. This study was designed to assess a two-fold higher dose. METHODS: Single 20 mg doses of lorcaserin were evaluated for their effects on the addictive properties of cocaine, using a randomized, double-blind, placebo-controlled, cross-over design. Non-treatment-seeking, regular cocaine users (7 participants) received both oral placebo and lorcaserin, followed by low- or high- doses of intravenous cocaine (0.23 or 0.46 mg/kg-injection). They were then allowed to self-administer the lower dose of cocaine. RESULTS: Intravenous cocaine produced orderly increases in 'high', 'stimulated', and 'good' drug effects. In addition, craving for drug use and values for the Addiction Research Center Inventory Morphine Benzedrine Group (MBG) were greater after intravenous cocaine. Combined treatment with high-dose lorcaserin and cocaine was well tolerated. Subjects self-administered more active (cocaine) than placebo injections (4.30 ± 0.74 vs 1.29 ± 0.42 injections). Oral lorcaserin did not modify cocaine self-administration or its positive subjective effects. Neither latency for lever pressing nor MBG values were altered by lorcaserin. CONCLUSION: Based on a limited number of subjects, combined treatment with cocaine and lorcaserin administered at a dose two-fold greater than currently approved for treatment of obesity appears safe. Lorcaserin did not modify drug reinforcement, latency for responding, or the positive subjective effects of cocaine. Although only single doses were tested, high-dose lorcaserin did not have obvious anti-addictive properties in this human laboratory study.

Willing to present orally: Yes

Financial Support: Supported by grants 1R21DA037556 (NIDA) and 589-KG-0012 (Department of Veterans Affairs).

Prefix: Dr.

First Name: Ken

Last Name: Grasing

Degrees: MA MD Ph.D etc:: M.D.

Email: kgrasing@kumc.edu

CC Email: kenneth.grasing@va.gov

Company Affiliation: Kansas City VA Medical Center

Contact Title: Assistant Professor

Mailing Address: 4801 Linwood Blvd.

City: Kansas City

State: MO

Zip/Postal: 64128

Country: United States

Phone: (913) 901-7051

Fax: (816) 922-4712

Membership Year: 1993

Sponsor: M.J. Kreek & M.W. Adler

Travel Award: 1990

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 269
Effects of therapeutic cannabis consumption on simulated driving and road safety

Patricia Di Ciano, Centre for Addiction and Mental Health, patricia.diciano@camh.ca

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Other

Other Topic: Driving

Abstract: Aims: As cannabis is legalized, it is of growing importance to monitor its use and associated outcomes. Recent surveys indicate that 30% of Canadians have used cannabis and, among these respondents, 12% have used the drug for medical purposes. Converging evidence suggests that recreational use of cannabis is associated with impairments in driving; however, the effects of therapeutic use of cannabis on driving have not been investigated. The purpose of the present study was to assess the effects of therapeutic cannabis use on simulated driving and its relationship to demographic variables and levels of THC and metabolites in blood, oral fluid and urine. Methods: Participants that used cannabis therapeutically on a daily basis attended the lab where they drove the driving simulator prior to smoking their own cannabis cigarette and again 30 minutes after smoking cannabis, under both normal and distracted driving conditions. Blood and urine were also collected before and after smoking cannabis; subjective scales and demographic information were also collected. Results: Even prior to smoking cannabis, there was a relationship between the amount smoked per day and lane weaving. After smoking cannabis, mean speed was decreased under both normal and distracted driving conditions ($t(13)=2.938$, $p=0.012$; $t(13)=2.337$, $p=0.038$) and this was correlated with the amount smoked on that day. Therapeutic use of cannabis also increased subjective reports of drug liking ($t(13)=-7.156$, $p < 0 .001$). THC and metabolites were increased in blood after smoking; residual THC was detected in blood despite not smoking that day. Conclusions: The present study provides the first experimental evidence that therapeutic use of cannabis can impact driving-related skills.

Willing to present orally: Yes

Financial Support: Ministry of Transportation of Ontario

Name of Sponsor (If you are NOT) a CPDD Member: Bruna Brands

Email Address of Sponsor : bruna.brands@camh,ca

Prefix: Dr.

First Name: Patricia

Last Name: Di Ciano

Degrees: MA MD Ph.D etc:: PhD

Email: patricia.diciano@camh.ca

CC Email: patricia.diciano@camh.ca

Company Affiliation: Centre for Addiction and Mental Health

Mailing Address: 33 Russell St

Address 2: T-700

City: Toronto

State: ON

Zip/Postal: M5S 2S1

Country: Canada

Phone: 6472189481

ID: 270
Characterizing the malleability of cigarette product preference and consumption

Danielle Davis, University of Vermont, ddavis4@uvm.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Behavior

Abstract: AIM: Cigarette preference can be experimentally shifted to a less preferred product by increasing response cost to obtain the preferred product. However, it is unclear how such shifts impact overall consumption, which could be particularly relevant when examining a nicotine reduction policy. The aim of this study is to examine how total consumption is impacted by a response cost-manipulated shift in cigarette preference. METHODS: Participants were 169 established smokers from a parent study examining populations vulnerable to tobacco addiction. After double-blind exposure to cigarettes varying in nicotine content, participants completed two types of concurrent choices tasks in which normal nicotine content (NNC) (15.8mg/g) and very low nicotine content (VLNC) (0.4mg/g) cigarettes were concurrently available. Participants completed a task in which both cigarettes were available at an equal, low fixed-ratio cost of 10 computer mouse clicks. Next, participants completed a second task in which the VLNCs remained available at FR10, but the NNCs were now available at a progressive-ratio cost wherein the number of clicks required to obtain NNCs increased progressively after each option was chosen (i.e. 10,160,320,…8400 clicks). Preference for the NNCs in each task type was compared with repeated measures ANOVA. Total number of choices within tasks (i.e. total consumption) was compared using paired samples t-tests. RESULTS: Preference was shifted from the NNCs to the VLNCs when cost for the former was increased (pCONCLUSION: These results suggest that in a marketplace where the ability to obtain NNCs is more difficult or costly, it would be expected that an increase in preference for VLNCs may occur, along with a decrease in overall cigarette consumption.

Willing to present orally: Yes

Financial Support: Tobacco Centers of Regulatory Science award U54DA036114 from the National Institute on Drug Abuse (NIDA) and the US Food and Drug Administration (FDA), Center of Biomedical Research Excellence award P20GM103644 from the National Institute of General Medical Sciences (NIGMS).

Prefix: Ms.

First Name: Danielle

Middle Initial: R.

Last Name: Davis

Degrees: MA MD Ph.D etc:: Ph.D.

Email: ddavis4@uvm.edu

Company Affiliation: University of Vermont

Mailing Address: 1415 J Arnold Clinic1 So. Prospect Street

City: Burlington

State: VT

Zip/Postal: 5401

Country: United States

Phone: 6789831253

Membership Year: 2016

Sponsor: Dr. Stephen Higgins, PhD

Research Interests: Behavioral Pharmacology Policy Treatment

ID: 271
Periadolescence toluene exposure alters behavioral responsiveness to later ethanol or cocaine challenges in swiss-webster mice

Cameron Davidson, Wayne State University, fw4948@wayne.edu

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Other (specify)

Other Drug Category: Inhalants

Topic: Tolerance/Dependence

Abstract: AIM: Inhalants, such as toluene, are one of the most commonly abused drugs among early adolescents. Drug use during adolescence can have lasting neurobiological and neurobehavioral consequences including impaired decision-making, increased risk taking, and increased drug use. There is a dearth of systematic investigations on how binge-toluene exposure during adolescence may affect responses to other drugs of abuse later in life. Our aim was to explore this using a preclinical model. METHODS: Adolescent male Swiss-Webster mice (N=364) were exposed during postnatal days (PND) 28-32 to 0, 2000, or 4000 parts per million (ppm) of toluene vapor for 30 min/day using a static-exposure chamber. Locomotor activity was recorded on PND 36 (after 4 days of abstinence) or on PND 44 (after 12 days) during cumulative dosing with either ethanol (0, 0.5, 1, 2, 4 g/kg), cocaine (0, 2.5, 5, 10, 20 mg/kg), or saline (5 control injections). RESULTS: Results from toluene exposure itself demonstrated that repeated exposure dose-dependently increased locomotor behavior with 4000 ppm producing sensitization and increasing locomotor activity across all 5-exposure sessions. Results after both abstinence periods demonstrated that previous toluene exposure resulted in decreased activity (desensitization) to higher cocaine doses (10 and 20 mg/kg) with the mice tested at PND 44 also showing significantly lower locomotion after 5 mg/kg. Mice previously exposed to 4000-ppm toluene and later challenged with ethanol showed a non-significant trend for less locomotor activity after 4 g/kg ethanol compared to air-exposed mice. CONCLUSION: These results are consistent with the thesis that toluene exposure during adolescence, especially in “binge-like” patterns, can alter subsequent effects of drugs of abuse. Such differences in drug sensitivity may impact the propensity for continued or increased drug use as well as increasing the risk of later drug-related disorders.

Willing to present orally: Yes

Financial Support: This research was supported in part by a grant from the Betty Neitzel Foundation (Department of Psychology, Wayne State University)

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Scott Bowen

Email Address of Sponsor : ad4771@wayne.edu

Prefix: Mr.

First Name: Cameron

Middle Initial: J.

Last Name: Davidson

Degrees: MA MD Ph.D etc:: MA

Email: fw4948@wayne.edu

Company Affiliation: Wayne State University

Mailing Address: 1326 FALL RIVER RD

City: YPSILANTI

State: Michigan

Zip/Postal: 48198-3126

Country: United States

Phone: 3174189325

ID: 272
Severity of methamphetamine use among methadone patients in Vietnam: Prevalence and correlates

Giang Le, Hanoi Medical University, leminhgiang@hmu.edu.vn

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Treatment

Abstract: AIM: The increase in methamphetamine use, especially among opioid injection drug users, could challenge addiction and HIV outcomes of the methadone maintenance therapy (MMT) in Vietnam. This study reports on levels of severity of methamphetamine use and correlates among a sample MMT patients in Hanoi, the capital city. METHODS: We conducted ASSIST-based screening and urine drug tests among 1605 patients in five largest MMT clinics. Among 566 patients who either had urine positive with methamphetamine and/or reported moderate- or higher risk use (ASSIST ≥4), 427 agreed to participate in a survey. Questionnaire domains include socio-demographic characteristics, substance use history, stigma towards methadone, PHQ2 for depression screening, and Amphetamine Cessation Symptom Assessment (ACSA). Chi-square or Kruskall-Wallis tests and a multinomial logistic regression were performed to identify correlates with levels of severity. RESULTS: The median age was 39 years (IQR:34-44); most were male (97%); about 15% were HIV-positive; the median number of years of heroin use was 12 (IQR:8-17) and the median age of first methamphetamine use was 32.5 years (IQR:27-40). By ASSIST score, 22.7%, 68.6% and 8.7% were at low, moderate and high levels of severity, respectively. Participants who injected heroin in the past 3 months and had greater ACSA-fatigue had greater odds of high (vs. low) methamphetamine use. Greater ACSA-craving scores were associated with greater odds of both high (vs. low) and of high (vs. moderate) use. Each year of self-reported opioid use was associated with a 1.12 times (95% CI: 1.01-1.24) greater odds of high (vs. low) use. Participants from one clinic had significantly higher odds of high (vs. low) use than other four. CONCLUSION: Methamphetamine use among methadone patients in Hanoi is substantial. Interventions should take into account not only severity levels but also patterns of heroin use as well as cluster effects of patients in the same clinic.

Willing to present orally: Yes

Financial Support: PEPFAR Vietnam Program

Name of Sponsor (If you are NOT) a CPDD Member: Steve Shoptaw

Email Address of Sponsor : SShoptaw@mednet.ucla.edu

Prefix: Dr.

First Name: Giang

Middle Initial: M.

Last Name: Le

Degrees: MA MD Ph.D etc:: M.D., Ph.D.

Email: leminhgiang@hmu.edu.vn

CC Email: lg282@cumc.columbia.edu

Company Affiliation: Hanoi Medical University

Mailing Address: Room 322, # 1 Ton That Tung Street

City: Hanoi

State: Vietnam

Zip/Postal: 10000

Country: Viet Nam

Phone: +(84) 913 281 842

ID: 273
Quantification of observable behaviors induced by kappa agonists in rhesus monkeys: Effects of signaling bias

Sally Huskinson, University of Mississippi Medical Center, shuskinson@umc.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Behavior

Abstract: Aim Kappa-opioid agonists (k-agonists) are antinociceptive but have side effects that limit therapeutic utility. Side effects might be ameliorated through selective intracellular signaling (i.e., biased signaling). This study determined behavioral profiles for a mu-opioid agonist and four k-agonists varying in signaling bias. We predicted k-agonists would produce profiles distinct from a mu agonist and that biased k-agonists would produce distinct profiles from unbiased (traditional) k-agonists. Methods Adult male rhesus monkeys (N=6) were administered oxycodone (OXY) or k-agonists with different signaling biases: salvinorin A (SVA) and U50,488 (U50), unbiased; nalfurafine (NF) and triazole 1.1 (TRZ), biased. Species-typical and drug-induced behaviors were recorded by observers blinded to drug conditions. Dose-response and time-course assessments were conducted for the drugs alone. Repeated-measures ANOVAs and Dunnett's post-hoc tests were used to determine which doses and timepoints were significantly different from saline. In addition, an examination of the effects of combining select k-agonists with OXY is underway. Results OXY decreased tactile/oral exploration (manipulation of environmental features) and self-groom and increased scratch, facial rub (purported indicator of gastrointestinal distress), and passive visual (motionless posture, eyes open). SVA and U50 (unbiased) decreased tactile/oral exploration, self-groom, and scratch, and increased passive visual and lip droop (purported to indicate muscle relaxation). NF (biased) decreased tactile/oral exploration and scratch and increased passive visual. TRZ (biased) decreased facial rub at a relatively low dose but had no effects on any other behaviors. Consistent with previous reports, SVA had the shortest and U50 and NF had the longest duration of action. Conclusion All k-agonists had distinct profiles from OXY. TRZ had a profile distinct from other k-agonists in its inability to alter species-typical or drug-induced behaviors. NF was distinct from SVA and U50 in its inability to decrease self-groom or induce lip droop. These results suggest that gradations along the spectrum of bias, even within biased agonists, produce distinct behavioral profiles.

Willing to present orally: Yes

Financial Support: NIDA grants DA039167 (KBF), DA018151 (TEP), AA016179 (DMP), and DA045011 (SLH)

Prefix: Dr.

First Name: Sally

Middle Initial: L.

Last Name: Huskinson

Degrees: MA MD Ph.D etc:: Ph.D.

Email: shuskinson@umc.edu

Company Affiliation: University of Mississippi Medical Center

Mailing Address: 2500 N. State Street

City: Jackson

State: MS

Zip/Postal: 39216

Country: United States

Phone: 6018155619

Fax: 601-984-5899

Membership Year: 2013

Sponsor: Dr. William Woolverton, Ph.D. and Dr. Freeman and Dr. Platt

Research Interests: Behavioral Pharmacology,Pharmacology

ID: 274
Assessment of impairment following oral and vaporized cannabis administration in infrequent cannabis users

Tory Spindle, Johns Hopkins University School of Medicine , spindletr@vcu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Behavior

Abstract: AIM: Cannabis has become more accessible with recent policy changes. Increasingly, cannabis is orally ingested or inhaled with vaporizers. There is a need to characterize cannabis doses likely to cause impairment, and identify measures that reliably differentiate impairment from discriminable drug effects in the absence of impairment. METHODS: Nine infrequent cannabis users (≥ 30 days since last use) completed six, double-blind outpatient sessions (separated by 1 week) in which they consumed cannabis brownies (0, 10, or 25mg THC) or inhaled vaporized cannabis (0, 5, or 20mg THC). Blood was sampled and subjective, cognitive, and psychomotor effects were assessed before cannabis administration and for 8hrs thereafter. The Digit Symbol Substitution Task (DSST), Paced Serial Addition Task (PASAT), Divided Attention Task (DAT), and DRUID Application measured cognitive/psychomotor performance. Field sobriety tests were also administered (results not yet available). RESULTS: For oral and vaporized cannabis, ratings of "Drug Effect" increased significantly in a dose-dependent manner (ps CONCLUSION: 10 and 25mg oral and 20mg vaporized THC doses increased subjective drug effects and impaired cognitive/psychomotor performance compared to placebo; 5mg vaporized cannabis produced discriminative drug effects without impairment. The DAT and DRUID appeared to be the most robust measures for identification of impairment. Reliable markers of cannabis intoxication/impairment are needed given the expanding legal cannabis market.

Willing to present orally: Yes

Financial Support: National Institute of Justice

Prefix: Dr.

First Name: Tory

Last Name: Spindle

Degrees: MA MD Ph.D etc:: Ph.D.

Email: spindletr@vcu.edu

CC Email: tspindl1@jhmi.edu

Company Affiliation: Johns Hopkins University School of Medicine

Mailing Address: 5510 Nathan Shock Dr

City: Baltimore

State: MD

Zip/Postal: 21224

Country: United States

Phone: 4105500529

Membership Year: 2017

Sponsor: Dr. Thomas Eissenberg, PhD

Research Interests: Behavioral Pharmacology,Epidemiology

ID: 275
Smoking prevalence and trends among a U.S. national sample of women of reproductive age in rural versus urban settings

Tyler Nighbor, University of Vermont, tyler.nighbor@uvm.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Epidemiology

Abstract: AIM: U.S. smoking prevalence is declining at a slower rate in rural than urban settings and contributing to regional health disparities. Cigarette smoking among women of reproductive age is particularly concerning due to the potential for serious maternal and infant adverse health effects should a smoker become pregnant. The aim of the present study was to examine whether this rural-urban disparity impacts women of reproductive age (ages 15-44) including pregnant women. METHODS: Data came from the ten most recent years of the U.S. National Survey on Drug Use and Health (2007-2016). We estimated prevalence of current smoking and nicotine dependence among women categorized by rural-urban residence, pregnancy status, and trends using chi-square testing and multivariable modeling while adjusting for common risk factors for smoking. RESULTS: Despite overall decreasing trends in smoking prevalence, prevalence was higher among rural than urban women of reproductive age overall ($\chi 2(1) = 579.33$, p

Willing to present orally: Yes

Financial Support: This research was conducted as part of the activities of the Tobacco Centers of Regulatory Science (TCORS) Vulnerable Populations Working Group, which is a collaborative effort supported by the National Institutes of Health (NIH) and Food and Drug administration (FDA). Support came from TCORS award P50DA036114 from the National Institute on Drug Abuse (NIDA) and FDA , TCORS Award P50CA180908 from the National Cancer Institute (NCI) and FDA, Center for Evaluation and Coordination of Training and Research award U54CA189222 from NCI and FDA, Institutional Training Grant award T32DA07242 from NIDA, Centers of Biomedical Research Excellence P20GM103644 award from the National Institute on General Medical Sciences, and Research awards R01HD078332 from the National Institute of Child Health and Human Development (NICHD) and R01HD075669 from NICHD and Centers for Disease Control and Prevention. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health or Food and Drug Administration. The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

Name of Sponsor (If you are NOT) a CPDD Member: Stephen T. Higgins

Email Address of Sponsor : stephen.higgins@uvm.edu

Prefix: Dr.

First Name: Tyler

Last Name: Nighbor

Degrees: MA MD Ph.D etc:: Ph.D.

Email: tyler.nighbor@uvm.edu

CC Email: tdnighbor@mix.wvu.edu

Company Affiliation: University of Vermont

Mailing Address: 1191 North Avenue

Address 2: Apt 107

City: Burlington

State: VT

Zip/Postal: 05408

Country: United States

Phone: 2096620191

ID: 276
PWID and provider perspectives on factors influencing MAT uptake among PWID in Ukraine: Highlights from HPTN 074 study

Tetiana Kiriazova, Ukrainian Institute on Public Health Policy, kiriazova@uiphp.org.ua

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Other Topic: MAT

Abstract: AIM Medication-assisted treatment (MAT) is an effective method of addiction treatment and HIV prevention. However, in Kyiv, Ukraine, only 4% of estimated 30000 people who inject drugs (PWID) were receiving MAT in September 2018. To expand MAT, program-developers need to understand barriers and facilitators of MAT uptake among PWID. METHODS As part of the HPTN074 study, which assessed an intervention to facilitate HIV and drug treatment in PWID, we conducted in-depth interviews with 15 PWID living with HIV (median age 33 years; 10 men, 5 women) and 8 providers (infectious disease and addiction physicians and counselors) to explore barriers and facilitators of MAT uptake. We coded interviews in NVivo for analysis and developed matrices to identify themes and patterns. RESULTS PWID and providers often reported similar multi-level barriers to MAT initiation for PWID. Main structural barriers were high-threshold entry to MAT program (costly examinations; limited number of slots), lack of geographical access and limited time of MAT sites' operation. The majority of respondents reported PWID's lack of information about MAT and misconceptions of methadone treatment ("free drug", "no way out", "one foot in a grave"). All participants talked about community-level stigma towards PWID, including those in addiction treatment. However, PWID and providers saw different drug-related barriers to treatment: while PWID were worried about MAT/ART drug interactions, providers demonstrated stigmatizing attitude underlying PWID's prioritization of drugs over health. Motivation for a life change and social support were facilitators reported by all participants. CONCLUSION In Ukraine, PWID face numerous barriers to MAT, reported by both PWID and providers. It is necessary to facilitate geographical access and ensure low-threshold MAT programs. PWID's negative attitudes to methadone treatment indicate the need for social marketing campaigns to address myths surrounding drug treatment. Education of medical providers about drug dependence may increase understanding of addiction and decrease stigma towards drug-dependent patients.

Willing to present orally: Yes

Financial Support: This work was supported by the National Institute of Allergy and Infectious Diseases (NIAID), the National Institute of Mental Health (NIMH), and the National Institute on Drug Abuse (NIDA) of the National Institutes of Health (NIH). The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH.

Name of Sponsor (If you are NOT) a CPDD Member: Jeffrey H. Samet, Boston Medical Center

Email Address of Sponsor : jsamet@bu.edu

Prefix: Dr.

First Name: Tetiana

Last Name: Kiriazova

Degrees: MA MD Ph.D etc:: Ph.D.

Email: kiriazova@uiphp.org.ua

CC Email: kiriazova@uiphp.org.ua

Company Affiliation: Ukrainian Institute on Public Health Policy

Mailing Address: 4 Malopidvalna Str, office 6

City: Kyiv

State: KY

Zip/Postal: 01001

Country: Ukraine

Phone: 442783132

ID: 277
Social provision, substance use and sexual orientation from a nationally representative sample of adults from NESARC-III

Carol Boyd, University of Michigan, caroboyd@umich.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Other

Other Topic: SEXUAL MINORITIES (LGB)

Abstract: AIM: This study assessed associations among social provision and alcohol use disorder (AUD), tobacco use disorder (TUD) and drug use disorder (DUD) by sexual identity and sex (male/female). METHODS: Data were from the 2012-2013 National Epidemiologic Survey on Alcohol and Related Conditions (NESARC-III), a nationally representative cross-sectional sample of adults in the United States. Data were collected via in-person interviews, respondents (N=36,309) were given $90.00 for their participation in the survey. The sample included: heterosexual men (n=15,190); sexual minority (SM) men (n=534); heterosexual women (n=19,454) and SM women (n=817). Measures: Social provision was determined using the 12-item Interpersonal Support Evaluation List; a score of 4 indicates the highest level of social provision (e.g., someone I could turn to for personal problems). All substance use disorders—AUD, TUD, and DUD—were determined using the Alcohol Use Disorder and Associated Disabilities Interview Schedule-5 (AUDADIS-5) with the endorsement of 2 or more symptom criteria indicating the presence of a disorder. RESULTS: Regression models were used to analyze associations between social provision and alcohol, tobacco and drug use disorders. Sexual minority (SM) adults had higher proportions of all substance use disorders with SM women experiencing the highest prevalence. Heterosexual women had the largest social provision scores (3.51), followed by heterosexual men (3.50), sexual minority women (3.42), and sexual minority men (3.33). Higher levels of social provision were generally associated with lower odds of substance use disorders, although this was not true for SM women. For SM women, social provision was not associated with lower odds of AUD, TUD, or DUD. CONCLUSION: Findings from this study provide important new knowledge about social provision and substance use disorders among sexual minority and heterosexuals. Understanding how various forms of social support influence substance use disorders can inform prevention strategies.

Willing to present orally: Yes

Financial Support: R01DA043696, R01AA025684, R01DA036541, and R01CA212517

Prefix: Dr.

First Name: Carol

Middle Initial: J.

Last Name: Boyd

Degrees: MA MD Ph.D etc:: PH.D, MSN, FIAAN, FAAN

Email: caroboyd@umich.edu

Company Affiliation: University of Michigan

Contact Title: Director,

Mailing Address: Center for the Study of Drugs, Alcohol, Smoking & Health (DASH Center)

Address 2: 400 N. Ingalls

City: Ann Arbor

State: MI

Zip/Postal: 48109-5482

Country: United States

Phone: (734) 615-2910

Membership Year: 2002

Sponsor: Charles R. Schuster PH.D. - Chris Ellyn Johanson

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 278
Direct relationship between family functioning and methamphetamine use among opioid injection drug users in Hanoi, Vietnam

Giang Le, Hanoi Medical University, leminhgiang@hmu.edu.vn

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Behavior

Abstract: AIM: The pattern of drug use in Vietnam has changed rapidly over the past decade. A large number of opioid injetion drug users (OIDU) reportedly use methamphetamine, and yet little is known about factors influencing this pattern of use. The study describes a predictive model for methamphetamine use among OIDU in Hanoi, the capital of Vietnam. METHODS: We conducted a cross-sectional survey among 521 OIDU who were recruited through chain referral and outreach at out-of-treatment settings and addiction as well as HIV treatment clinics. Participants: (1) were aged 18 or older; (2) reported a history of heroin injection in the 12 months before the survey; (3) agreed for a urine test to detect methamphetamine and opiate metabolites. Methamphetamine use includes self-report of methamphetamine use during the 30 days before the survey or urine tested positive with methamphetamine. Structural equation modeling was applied to examine a predictive model of risk factors for methamphetamine use. RESULTS: The average age of participants was 38.1±6.5 years. The mean duration of heroin use was 9.1±5.0 years; 33.9% reportedly were receiving methadone treatment. About 33% of participants qualified as methamphetamine users as defined in this study. In the structural equation model, younger age (β=-0.17, $p < 0$ .001); longer history of heroin use (β=0.13, $p < 0$ .001), using simultaneously methamphetamine with MDMA and/or cannabis (β=0.28, $p < 0$ .001) and not using condom during sex (β=0.14, $p < 0$ .001) were individual-level risk factors. At the family level, family functioning played a protective role towards methamphetamine use (β=-0.14; $p < 0$ .001). Having mental health disorders reduced family functioning (β=-0.31, $p < 0$ .001), which in turn was associated with methamphetamine use. CONCLUSION: Methamphetamine use among OIDU in Hanoi, Vietnam is substantial. Future interventions should pay attention to both individual- and family-level factors such as family relationships and support.

Willing to present orally: No

Financial Support: R03DA037783 (PI: Giang Le)

Name of Sponsor (If you are NOT) a CPDD Member: Daniel Feaster

Email Address of Sponsor : DFeaster@biostat.med.miami.edu

Prefix: Dr.

First Name: Giang

Middle Initial: M.

Last Name: Le

Degrees: MA MD Ph.D etc:: M.D., Ph.D.

Email: leminhgiang@hmu.edu.vn

CC Email: lg282@cumc.columbia.edu

Company Affiliation: Hanoi Medical University

Mailing Address: Room 322, # 1 Ton That Tung Street

City: Hanoi

State: Vietnam

Zip/Postal: 10000

Country: Viet Nam

Phone: +(84) 913 281 842

ID: 279
Molecular mechanisms underlying incubation of morphine craving in Long Evans rats

Hannah Mayberry, Temple University, tuh34406@temple.edu

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Neurobiology

Other Topic: Relapse/Craving

Abstract: AIM One of the major contributing factors to the current opioid epidemic in the United States is relapse. According to JAMA, drug relapse rates are on par with other chronic relapsing diseases, such as Type I diabetes, hyptertension, and asthma. Despite years of research, current treatments are not highly effective and relapse rates remain high. The DSM-V now includes drug craving as a criterion for Opioid Use Disorder, illustrating the prevalence of drug craving in this population. Intensely physical cravings, often precipitated by previously drug-paired cues, not only characterize the disease state but persist into abstinence, often resulting in relapse. The aim of our work is to elucidate molecular mechanisms underlying drug craving after morphine self-administration. METHODS Craving is difficult to assess in rodents; therefore, we use an incubation of craving model, which allows us to examine cue-induced drug craving after various abstinence periods. In this model, drug-seeking behavior elicited by exposure to previously drug-paired cues increases in a time-dependent fashion. Here, Long Evans rats were trained to intravenously self-administer morphine for ten days. After one or thirty days of forced abstinence, morphine-experienced rats were either behaviorally tested for signs of incubation of craving or their brains were dissected and tissue from reward-related brain regions collected. Although reward-seeking is largely governed by overlapping neural circuitry, it has been shown that underlying molecular mechanisms are dissociable by reinforcer. Thus, we replicated our experiments with sucrose, which acts as a natural reinforcer. RESULTS We have established incubation of morphine and sucrose craving in male and female rats. These cohorts allow us to investigate opioid-specific molecular mechanisms in a potentially sex-specific way. CONCLUSION Our studies have laid the groundwork for a more robust understanding of the molecular changes that specifically accompany opioid craving and contribute to relapse, in order to better inform future opioid-targeted treatments.

Willing to present orally: Yes

Financial Support: K01 DA039308 and DP1 DA046537

Name of Sponsor (If you are NOT) a CPDD Member: Ellen Unterwald

Email Address of Sponsor : ellen.unterwald@temple.edu

Prefix: Ms.

First Name: Hannah

Middle Initial: L

Last Name: Mayberry

Degrees: MA MD Ph.D etc:: BS

Email: tuh34406@temple.edu

Company Affiliation: Temple University

Mailing Address: 150 N 21st Street

Address 2: Apartment 3FF

City: Philadelphia

State: PA

Zip/Postal: 19103

Country: United States

Phone: 5712838365

ID: 280
Impaired driving: Effects of opioids, alcohol and their combination on simulated driving performance

Shanna Babalonis, University of Kentucky, College of Medicine, babalonis@uky.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Behavior

Abstract: Aims: Despite the prevalence and enormous public health impact of driving under the influence of drugs, there are sparse data examining acute opioid effects on driving performance. The aim of this study is to examine the effects of oxycodone alone and in combination with alcohol in humans on simulated driving performance, subject-rated outcomes and psychomotor measures. Methods: Healthy adult participants (n=11) without current opioid or alcohol use disorder completed this within-subject, double blind, placebo-controlled, randomized outpatient study. Six 8-hr sessions were completed during which oral oxycodone (0, 5, 10mg) was administered 30min prior to oral alcohol (0, 0.8g/kg) for a total of 6 test conditions. Driving performance, participant- and observer-rated outcomes, psychomotor performance, and physiological effects were assessed. Results: Active alcohol increased subjective ratings (e.g., drug liking) and impaired driving performance (relative to placebo) on several outcomes (e.g., lateral control) (p

Willing to present orally: Yes

Financial Support: R56DA036635 (SLW), UL1RR033173 (UK CTSA)

Prefix: Dr.

First Name: Shanna

Last Name: Babalonis

Degrees: MA MD Ph.D etc:: Ph.D.

Email: babalonis@uky.edu

CC Email: brenda.milward@uky.edu

Company Affiliation: University of Kentucky, College of Medicine

Mailing Address: 845 Angliana Ave

City: Lexington

State: KY

Zip/Postal: 40508

Country: United States

Phone: 8592571881

Membership Year: 2006

Sponsor: Dr. Thomas Kelly, Ph.D.

ID: 281
A qualitative investigation of addiction counselor experiences and perspectives on the implementation of an open-access medication-assisted treatment model

Lindsay Oberleitner, Yale University, lindsay.oberleitner@yale.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM: To examine addiction counselors' experiences working in open-access medication-assisted treatment (MAT) programs that have scaled up to address the opioid crisis. METHODS: 31 counselors from the APT Foundation (18 women, 13 men) were interviewed about their experiences working in APT's "open-access MAT model," whereby prospective clients are enrolled rapidly in MAT, irrespective of their ability to pay, and provided real-time access to a menu of treatment options from which they were free to choose. Between 2007 and 2017, APT's MAT client census grew from 1,400 to 5,200. Three team members (a clinical psychologist, physician, and post-doctoral public policy researcher) coded the interviews via a grounded theory approach, with two researchers independently reviewing each item. The team reviewed themes and reconciled disagreements (rater agreement was 96%). Themes reported by more than 10% of participants are described. RESULTS: Counselors provided an accurate description of key aspects of the open-access model (e.g., "same day access" – 76%; "system responsive to client"/"barrier reduction" – 76%). Counselors described perceived advantages for clients (e.g., "it works"; "individualized to client needs" – 27%), their own work (e.g., "less demands"; "good/great" – 52%), and for community health (e.g., "crime reduced"; "decreased overdose risk" – 42%). Perceived disadvantages included "need for more intensive services for some clients" - 26%; "negative clinician outcomes (uneven workload, high demands)" - 32%; and "negative client outcomes impact on therapeutic relationship, chaotic)" - 19%). CONCLUSION: While counselors working in an open access framework describe multiple benefits to their clients, themselves, and to the public, reported perceived disadvantages should be further explored and addressed to facilitate further MAT scale-up to respond to the current opioid crisis.

Willing to present orally: Yes

Financial Support: APT Foundation, Inc

First Name: Lindsay

Last Name: Oberleitner

Degrees: MA MD Ph.D etc:: Ph.D.

Email: lindsay.oberleitner@yale.edu

Company Affiliation: Yale University

Mailing Address: 26 Cooper Ave.

City: New Haven

State: CT

Zip/Postal: 6460

Country: United States

Phone: -3134186143

Fax: (203)781-4681

Membership Year: 2012

Sponsor: Dr. Declan Barry, Ph.D.

Date of Membership: removed 8.3.18 owes for 2017*2018 $100 for MIT

ID: 282
Medical problems in women with comorbid PTSD and SUD by various substances use categories

Therese Killeen, Medical University of South Carolina, killeent@musc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Treatment

Abstract: Aims: Post-traumatic stress disorder (PTSD) and substance use disorders (SUD) are associated with increased risk of developing or worsening of medical problems. This study explores the occurrence and severity of medical problems among various substances of abuse in individuals with PTSD and SUD. Methods: Participants were treatment seeking women with comorbid PTSD and SUD (N = 67) enrolled in a study exploring the feasibility and efficacy of a Mindfulness Meditation intervention. Descriptive statistics determining occurrence and severity of adverse events by categories of substances were calculated with mean and standard deviation. Due to non-normal distributions within substance use category, a one-sided Wilcoxon rank sum test was used, as well as Cochran-Mantel Haenzel statistics. Results: Thirty–four women reported at least one adverse medical event from baseline to 6 month follow-up, with an average of 2.70 (1.9) adverse events. Seventeen of the 34 women with an opioid use disorder (OUD) had an average of 2.59 (1.66) adverse events. Fifteen of the 34 women with other SUDs had an average of 3.07 (2.19) adverse events. There was no difference in number of adverse events by substance category (p=0.34). Among those with OUD, adverse events were rated as 13.6% mild, 31.8% moderate and 54.6% severe. Among those with other SUD, 22.2% were mild, 46.7% moderate and 31.1% severe. There was a statistically significant difference in severity of adverse events by substance category, with increased severity among those with OUD compared to other SUD (p=0.042). Conclusions: Medical problems commonly occur in women with comorbid PTSD and SUD. Although there are no differences in the number of adverse medical events by substance category, women with OUD are more likely to report a higher level of severity of medical events. Identifying and addressing medical problems may be indicated to improve treatment outcomes.

Willing to present orally: Yes

Financial Support: NIDA

Prefix: Dr.

First Name: Therese

Last Name: Killeen

Degrees: MA MD Ph.D etc:: Ph.D/APRN

Email: killeent@musc.edu

CC Email: killeen.therese@gmail.com

Company Affiliation: Medical University of South Carolina

Mailing Address: 67 President St., MSC 250861

Address 2: Rm 539 North

City: Charleston

State: SC

Zip/Postal: 29425

Country: United States

Phone: (843) 792-5232

Membership Year: 2005

Sponsor: Kathleen T. Brady, Dace Svikis

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 283
Same- and next-day access improves linkage to outpatient MOUD care post-discharge

Payel Roy, Boston University School of Medicine, payel.roy@bmc.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim Inpatient addiction consult services lower barriers to accessing medications for opioid use disorder (MOUD), however not every patient initiated on medication in the hospital links to outpatient care. To better understand wait-times as a barrier to MOUD, we aimed to determine whether patients evaluated for MOUD on an inpatient addiction consult service with fewer number of days between discharge date and follow-up appointment date had improved linkage to outpatient MOUD care. Methods We extracted appointment data and demographic and clinical measures from electronic medical records and retrospective chart review of adults diagnosed with opioid use disorder (OUD) evaluated by an Addiction Consult Service in Boston, MA between July 2015 and August 2017 who were 1) recommended medication treatment on discharge and 2) provided a follow-up appointment at our hospital post-discharge for initiation or continuation of treatment. Descriptive statistics assessed age distributions, gender, distance from the hospital, and insurance status. Multivariable logistic regression assessed whether arrival to the appointment post discharge was associated with having shorter wait-times (0-1 vs. 2+ days). Results In total, 137 patients were included for study. Among patients who had wait-times of 0-1 day, 58% arrived to their appointment compared to wait-times of 2 or more days (40%). There were no significant differences between groups based on age, gender, or distance living from the hospital, but they differed by insurance status. After adjusting for covariates, patients with 0-1 day of wait-time had 2.3 times the odds of arriving to their appointment [95% CI 1.1-4.8] compared to patients who had 2+ days of wait-time. Conclusion For hospitalized patients with OUD evaluated for initiating MOUD, same- or next-day appointments vs. longer wait times likely improves linkage to outpatient MOUD care post-discharge.

Willing to present orally: Yes

Financial Support: This research was supported by the following grants: NIDA R25DA033211, NCATS 1UL1TR001430, and NIDA T32DA041898.

Prefix: Dr.

First Name: Payel

Middle Initial: J

Last Name: Roy

Degrees: MA MD Ph.D etc:: MD

Email: payel.roy@bmc.org

Company Affiliation: Boston University School of Medicine

Mailing Address: 801 Massachusetts Ave

Address 2: 2nd Floor

City: Boston

State: MA

Zip/Postal: 02118

Country: United States

Phone: 6174146919

Membership Year: 2018

Sponsor: Dr. Jeffrey Samet, MD

Research Interests: Health Services,Treatment

ID: 284
An investigation of the reinforcing potential of PN6047 by conditioned place preference testing in rats

David Heal, RenaSci Ltd., david.heal@renasci.co.uk

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Dependence

Abstract: Aim: PN6047, a novel selective δ-opioid agonist, is being developed to treat persistent chronic pain. PN6047's reinforcing potential has been evaluated in conditioned place preference (CPP) using rats. Heroin was the positive control. Methods: CPP was conducted in a 3-compartment apparatus separated by guillotine doors. The drug- and vehicle-paired compartments were contextually differentiated. After 4 days of handling, male, Wistar rats were allowed to move freely between the compartments for 15min while cameras tracked their movements (Habituation). On Days 7-10 (Conditioning), rats received saline (1mL/kg, s.c.), heroin (1 mg/kg, s.c.), PN6047 (3mg/kg, i.p.), PN6047 (9mg/kg, i.p.) or vehicle (1.5 mL/kg, i.p.) and were restricted to their corresponding compartment for 40min. The following day, those that received heroin or PN6047 received saline or vehicle and were restricted to the opposite compartment. This procedure was repeated over 4 days. CPP was performed 24hr after the last conditioning day. The guillotine doors were removed and rats were allowed to roam freely for 15min. Preference scores (time spent in sec in the drug-paired compartment minus 450 sec [50% of the test session]) are reported as mean±SEM, n=12/group. Results: Saline or vehicle did not produce any preference between the compartments, i.e. Post-conditioning vs Habituation (Saline = 6.92±51.78 vs 8.09±23.4; Vehicle = -9.61±34.35 vs 4.36±23.16). Heroin produced robust preference for the drug-paired compartment (99.54±41.26 vs 5.61±23.7, $p < 0$ .05). Neither dose of PN6047 induced place preference (PN6047 [3mg/kg] = -27.66±40.32 vs 4.69±27.78; PN6047 [9mg/kg] = 64.86±51.57 vs 5.07±20.18). Conclusion: The μ-opioid agonist, heroin, produced significant CPP. However, no significant CPP seen with the δ-opioid receptor agonist, PN6047. Therefore PN6047 does not produce reinforcing effects that induce CPP in rats. If these results translate to humans they predict PN6047 will not produce rewarding effects that could lead to abuse.

Willing to present orally: No

Financial Support: Grant from RenaSci

Prefix: Dr.

First Name: David

Middle Initial: J.

Last Name: Heal

Degrees: MA MD Ph.D etc:: Ph.D.,DSc

Email: david.heal@renasci.co.uk

CC Email: david.heal@renasci.co.uk

Company Affiliation: RenaSci Ltd.

Contact Title: Executive Director

Mailing Address: BioCity, Pennyfoot Street

City: Nottingham

State: Notts

Zip/Postal: NG1 1GF

Country: United Kingdom

Phone: 44 115 912 4261

Membership Year: 2010

Sponsor: Dr. Jack Henningfield and William Woolverton

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 285
Family planning among female syringe exchange clients

Sarah Heil, University of Vermont, sarah.heil@uvm.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Perinatal

Abstract: AIM Women who have opioid and other substance use disorders have a high rate of unintended pregnancy and a low rate of effective contraceptive use. A small number of studies have tested integrating family planning (FP) services into drug treatment settings and have observed positive results. Syringe exchange programs may be another unique setting in which to incorporate FP services. The present study examines the FP needs of female clients of a syringe exchange program (SEP). METHODS Women of reproductive age who were current clients at an SEP in Burlington, VT, could complete a written survey assessing demographics, drug use, and FP needs and were compensated $20 for doing so. RESULTS Women (N=42) averaged 32 years of age and a high school education and most were unemployed and on Medicaid. Familiarity with all contraceptive methods was high (80%+) and 50% reported a history of using the most effective methods. However, about half (45%) reported that their most recent pregnancy was unintended and 47% have used emergency contraception. Most (93%) were not currently trying to get pregnant, but 50% either were not using any contraception or were using one of the less effective methods. A notable percentage (32%) reported that a health care provider had discriminated against them because of their drug use or other characteristics. Thirteen potential barriers to accessing contraception were not strongly endorsed, but were led by concerns about cost, transportation, provider coercion, and stigmatization by providers. Most women (70%) were interested in receiving FP services at the SEP. DISCUSSION A large percentage of female syringe exchange clients have a history of unintended pregnancy and are currently at risk. Most clients were interested in having FP services provided at the SEP and many of the barriers to accessing FP services could be overcome by such co-location.

Willing to present orally: Yes

Financial Support: R01DA036670

Prefix: Dr.

First Name: Sarah

Middle Initial: H.

Last Name: Heil

Degrees: MA MD Ph.D etc:: Ph.D.

Email: sarah.heil@uvm.edu

CC Email: sarah.heil@uvm.edu

Company Affiliation: University of Vermont

Mailing Address: UHC, OH3 MS482

Address 2: 1 South Prospect St.

City: Burlington

State: VT

Zip/Postal: 5401

Country: United States

Phone: (802) 656-8712

Fax: (802) 656-5793

Membership Year: 2003

Sponsor: Dr. Stephen T. Higgins- Dr. Warren K. Bickel

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

Date of Membership: changed from Reg. to Fellow off the BOD/18

ID: 286
Gender differences in substance use, victimization and mental health among adolescents in therapeutic residential care

Sergio Fernandez-Artamendi, Universidad Loyola Andalucía, sfernandezartamendi@outlook.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Adolescent

Other Topic: Mental Health, Gender differences, Victimization

Abstract: AIM: Evaluate gender differences in substance use, victimization and mental health in adolescents in therapeutic residential care (TRC) METHODS: 380 adolecents (69,7% boys; average age = 15,29 years old and SD = 1,33) participated in the study. The Youth Self Report (YSR) was used to evaluate mental health problems. The Juvenile Victimization Questionnaire (JVQ) was utilized to assess victimization. The Cannabis Problems Questionnaire for Adolescents - Short form (CPQ-A-S) and the Rutgers Alcohol Problems Index (RAPI) were used to measure substance use problems. Descriptive analyses were carried out for the main instruments, as well as bivariate analyses (Student t and corrlations) to evaluate gender differences in mental health and substance use problems. Correlations were calculated between mental health, victimization and substance use problems. RESULTS: 63,8% of adolescents scored over clinical levels in RAPI and 56,5% in CPQ-A-S. Significant correlations were found in boys and girls between alcohol use problems and internalizing (r = .147 and .379 respectively) and externalizing (.509 and .531) symptoms. Cannabis use problems also correlated with internalizing problems in boys (.135) and externalizing in boys and girls (.466 and .482). Victimization, particularly through violence in the community was associated significantly with alcohol (.287) and cannabis (.323) use problems. CONCLUSION: Adolescents in therapeutic residential care present with severe substance use problems, and clinically relevant gender differences exist in substance use problems and mental health issues. Mental healh problems and victimization are significantly associated with substance use problems. Therefore, appropriate evaluation of mental health and victimization is necessary among substance users in therapeutic residential care, as well as developing suitable and comprehensive interventions taylored to their specific needs. Special attention to mental health and victimization among adolescent substance users from the general population attending treatment may also merit consideration.

Willing to present orally: Yes

Financial Support: MINECO16-PSI2015-65229R

Prefix: Dr.

First Name: Sergio

Last Name: Fernandez-Artamendi

Degrees: MA MD Ph.D etc:: Ph.D.

Email: sfernandezartamendi@outlook.com

CC Email: sfernandez@uloyola.es

Company Affiliation: Universidad Loyola Andalucía

Mailing Address: C/Energía Solar, 1

City: Sevilla

State: Andalucía

Zip/Postal: 41014

Country: Spain

Phone: 0034620010414

Membership Year: 2015

Sponsor: Roberto Secades-Villa, Ph.D. and Dr. Alan Budney

Research Interests: Behavioral Pharmacology,Treatment

Date of Membership: applying for full membership Sept. 1 review 18

ID: 287
eDarkTrends: Analyzing illicit fentanyl and other novel synthetic opioid trends on cryptomarkets

Francois Lamy, Mahidol University, francois.lamy@wright.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Other

Other Topic: Illicit drug market

Abstract: Aim: The United States is experiencing the worst opioid epidemic in its history. Since 2013-2014, illicitly manufactured fentanyl (IMF) and other synthetic opioids (e.g., U-47,700) have emerged in the drug market and are held responsible for the dramatic increase in lethal overdoses. There is a growing concern that Darknet cryptomarkets play an increasingly important role in providing illicit psychoactive substances for a diverse population of users worldwide. The eDarkTrends project aims to harness and analyze cryptomarket advertisements related to IMF and other illicit synthetic opioids to assess availability trends. Method: Opioid-related advertisements were collected from the DreamMarket cryptomarket using a dedicated crawler at 22 time-points between 03/22/2018 and 09/30/2018. Raw HyperText Markup Language (HTML) data were then parsed before being processed by a task-dedicated Named Entity Recognition (NER). The NER used word patterns based on the Drug Abuse Ontology to identify product names, pharmaceutical brands, price, substance forms, and dosage. Results: 86,022 opioid-related advertisements were collected. 3,777 (4.4%) ads were related to IMF and 575 (0.6%) were related to illicit synthetic opioids. On average, there were 27 illicit synthetic opioid ads (offering a total of 6.78kg of products, range 0.5g-1kg) and 162 IMF-related ads (offering a total of 8.78kg, range 0.01g-1kg) posted on DreamMarket at each time point. Illicit novel synthetic opioid prices varied from US$58/g for retail quantities (lower than 5g) to US$9/g for wholesale quantities (greater than 100g). IMF price varied from US$1770/g for retail quantities (lower than 2g) to US$48/g for wholesale quantities (greater than 100g). Conclusion: Cryptomarkets represent a small but steadily growing new type of drug market. Results suggest the existence of both retail and wholesale quantities of IMF and other novel synthetic opioids. The eDarkTrends platform provides a useful tool to collect, analyze and monitor cryptomarkets data related to emerging synthetic opioid drugs.

Willing to present orally: Yes

Financial Support: Supported by NIDA R21DA044518 02

Name of Sponsor (If you are NOT) a CPDD Member: Raminta Daniulaityte

Email Address of Sponsor : raminta.daniulaityte@wright.edu

Prefix: Dr.

First Name: Francois

Last Name: Lamy

Email: francois.lamy@wright.edu

CC Email: flamy1978@gmail.com

Company Affiliation: Mahidol University

Mailing Address: 999 Phutthamonthon Sai 4 Rd, Tambon Salaya, Amphoe Phutthamonthon, Chang Wat Nakhon Pathom

Address 2: Department of Society and Health

City: Salaya

State: NP

Zip/Postal: 73170

Country: Thailand

Phone: +66628856877

ID: 288
The mind of the addiction counselor: A qualitative exploration of their social identity, perceived stigma, and work motivations

David Oberleitner, University of Bridgeport, doberlei@bridgeport.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim: Understanding the work experiences of addiction counselors, especially those working in opioid treatment programs (OTPs) that have expanded treatment capacity to address the opioid crisis, may inform ongoing efforts to scale up medication-assisted treatment (MAT). The aim of the current study was to explore the perceptions of self-concept in addiction counselors related to professional identity, work motivations, and perceived stigma. Methods: Counselors were recruited from the APT Foundation, Inc (a community-based, not-for-profit organization in Connecticut) whose OTP census increased from approximately 1,400 patients to 5,200 patients between May 2007 and May 2017. Semi-structured interviews conducted by a clinical psychologist were audio-recorded and transcribed verbatim; using "grounded theory," responses to study questions were coded by a social psychologist with expertise in social identity theory and a medical anthropologist. Results: Counselors were 18 women, 13 men with a mean (SD) age of 47.3 (15.1) years and 16.5 (10.7) years of experience. Most had a master's (71%) or bachelor's degree (16%) and self-identified as white (77%). Themes emerged that centered on internal versus external aspects of identity, internal vs. external sources of work motivation, and internal vs. external aspects of perceived stigma relating to addiction treatment. Internal factors centered on self-perceptions whereas external factors focused on how others view them. Conclusion: The application of social identity theory to this population provides for a novel approach to understanding the lived experience of the counselors. The findings may have implications for the development of staffing supports to decrease stigma and increase natural supports that increase self-efficacy in addiction counselors.

Willing to present orally: No

Financial Support: APT Foundation, Inc.

First Name: David

Last Name: Oberleitner

Email: doberlei@bridgeport.edu

Company Affiliation: University of Bridgeport

Mailing Address: Department of Psychology

City: Bridgeport

State: CT

Zip/Postal: 06604

Country: United States

Phone: 2037814600

ID: 289
Negative health behaviors contribute to the development of opioid use disorder

Maureen Reynolds, University of Pittsburgh, maureen@pitt.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Dependence

Abstract: Aim: Psychosocial stress is linked to developing substance use disorders, but the underlying mechanisms of opioid use disorder (OUD) remain poorly understood. Negative health behaviors contribute to psychosocial stress; we examined their contribution to health risk outcomes, leading to OUD. We hypothesized that the experience of negative health behaviors early in life will contribute to the development of OUD. Methods: The sample was drawn from a longitudinal study of drug use in 750 families. Children were ages 10-12 at study entry and followed biannually until age 30. Our outcome sample was comprised of 53 subjects who met DSM-5 diagnostic criteria for OUD by age 30. Predictive measures included number of parents diagnosed with OUD, self-reported health habits at age 16, traumatic event experience, somatic complaints and any illicit opioid use by age 19. Path analysis was utilized to model the contributions of parental OUD, negative health behavior practices, traumatic experiences, and somatization leading to opioid use and OUD. Results: A significant direct path (p

Willing to present orally: Yes

Financial Support: NIDA: P50-DA005605; SAMHSA: 1H79TI026423

Prefix: Dr.

First Name: Maureen

Middle Initial: D.

Last Name: Reynolds

Degrees: MA MD Ph.D etc:: Ph.D.

Email: maureen@pitt.edu

Company Affiliation: University of Pittsburgh

Mailing Address: 2706 Toledo Street

City: Pittsburgh

State: PA

Zip/Postal: 15204

Country: United States

Phone: (412) 331-3828

Fax: (412) 771-9281

Membership Year: 2014

Sponsor: Dr. Ralph Tarter , Ph.D. and Dr. Ty Ridenour, Ph.D.

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 290
More extensive gray matter volume reduction in fronto-temporal areas among individuals with cocaine + alcohol use disorder than cocaine only: A voxel-based morphometric study.

Priscila Dib Gonçalves, University of São Paulo, pri_dib@yahoo.com.br

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Imaging

Abstract: Aim: To examine distinct patterns of Gray Matter Volume (GMV) abnormalities and decision making among individuals with cocaine + alcohol use disorder (CUD+AUD) compared with those with cocaine use disorder (CUD) only. Methods: T1-weighted brain MRIs were obtained on a 3T scanner in 23 patients with CUD + AUD, 19 people with CUD only and 20 healthy controls (HC). Images were analyzed by Voxel-Based Morphometry (VBM) using the Statistical Parametric Mapping 12 (SPM 12). Whole-brain and small-volume correction (SVC) analyses were performed. Statistically significant differences were only reported after correction for multiple comparisons, considering pFWE

Willing to present orally: No

Financial Support: Brazilian National Council for Scientific and Technological Development (CNPq) (402721/2010-1) São Paulo Research Foundation – FAPESP (2010/01272-6).

Prefix: Dr.

First Name: Priscila

Last Name: Dib Gonçalves

Degrees: MA MD Ph.D etc:: PhD

Email: pri_dib@yahoo.com.br

CC Email: priscila.goncalves@hc.fm.usp.br

Company Affiliation: University of São Paulo

Mailing Address: Rua dr. ovídio pires de campos 785

Address 2: Servico de Psicologia e Neuropsicologia

City: São Paulo

State: Brazil

Zip/Postal: 05403-903

Country: Brazil

Phone: 5511994502610

Biography: https://scholar.google.com.br/citations?user=hkYisiIAAAAJ&hl=en

ID: 291
A single centre retrospective study comparing post-operative opioid prescribing practices between caesarean sections and open general surgery procedures

Miriam Harris, Boston University - Boston Medical Centre, miriam.harris@bmc.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: Aim: Physician prescribing practices are contributing to the North America opioid crisis. Identifying practice variability may be an important step for targeted interventions. We aim to compare postoperative opioid prescribing practices between selected open abdominal and pelvic surgeries and highlight variations in practice. Methods: This is a retrospective cohort study of patients who underwent a caesarean section (CS) or open general surgery (GS) procedure in 2017 at an academic centre in Montreal, Canada. Open GS procedures included appendectomy, cholecystectomy, hernia repair, and laparotomy. Post-operative opioids in daily morphine equivalent doses (MED) in hospital and at discharge were compared between CS and GS patients. Using logistic regression the odds of receiving more than 50mg MED daily at discharge by procedure type (CS vs GS) were explored controlling for multiple confounders. Results: 927 patients were included; 689 women underwent a CS and 238 (180 men and 58 women) underwent an open GS procedure. Patients undergoing CS were more likely to receive higher daily doses of opioids in hospital, and men received lower doses: 80mg MED (IQR 80-80) for CS vs 15 mg MED (IQR 0-60) for GS men and 45mg MED (IQR 0-90) for GS women ($p < 0$ .001). At discharge, patients who underwent a CS received lower median doses of opioids than GS patients (20mg MDE (IQR 20-20) vs 45mg MDE (IQR 40-60); $p < 0$ .001). The odds ratio of exceeding the Centre for Disease Control's (CDC) recommended maximum daily dose of 50mg of MED was 19.8 (CI 6.2-63.1) for GS men and 19.3 (CI 5.4-68.1) for GS women, with CS as the reference group. Conclusion: In this study, CS compared to GS patients were less likely to exceed the CDC's safe dosing recommendations at hospital discharge. Prescribing variability between these comparable procedural groups highlights the need for targeted education and intervention for GS prescribers.

Willing to present orally: Yes

Financial Support: None

Prefix: Dr.

First Name: Miriam

Middle Initial: Tova Henning

Last Name: Harris

Degrees: MA MD Ph.D etc:: MD

Email: miriam.harris@bmc.org

Company Affiliation: Boston University - Boston Medical Centre

Mailing Address: 801 Massachusetts Ave

City: Boston

State: MA

Zip/Postal: 02118

Country: United States

Phone: 8574246631

ID: 292
Preferences and perceptions of long-acting injectable and implantable medications for opioid use disorder

Elizabeth Saunders, The Dartmouth Institute for Health Policy and Clinical Practice, elizabeth.c.saunders.GR@dartmouth.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim: Treatment for opioid use disorders has evolved recently to include long-acting injectable and implantable formulations of medications for opioid use disorder (MOUD). Though incorporating preferences is associated with increased motivation and treatment satisfaction, patient preferences regarding injectable and implantable MOUD are largely unknown. Methods: We conducted qualitative, semi-structured telephone interviews with forty adults purposively recruited from across the United States through Craigslist advertisements and flyers posted in treatment programs. Eligible participants scored a two or greater on the heroin or opioid pain reliever sections of the Tobacco, Alcohol, Prescription Medications, and Other Substances (TAPS) Tool, indicative of a past-year OUD. Interviews were transcribed, coded, and content analyzed. Results: Twenty-four (60%) participants were currently or previously prescribed MOUD. Fourteen (35%) participants expressed general opposition to MOUD, citing concerns that they are purely a financial gain for pharmaceutical companies and/or a "band aid" solution replacing one drug with another, rather than a path to abstinence. Despite these views, some participants expressed openness to new long-acting injectable (n = 16/40: 40%) and implantable formulations (n = 12/40: 30%). About half of the participants were not open to these injectable (n = 19/40: 48%) or implantable (n = 22/40: 55%) formulations. Mixed evaluations of long-acting MOUD focused on benefits (e.g., convenience, elimination of the potential for non-prescribed use, control over dosage and duration of treatment) compared with preference for daily oral self-administration (e.g., dislike of injections, finding injections triggering, concerns/fear/paranoia about implant insertion, provision of structure and support through daily clinic visits). Conclusions: Though many participants prefer oral formulations to long-acting MOUD, some were open to including long-acting formulations in the range of options for those with OUD, particularly due to their convenience and abuse deterrence. The results suggest support for expanded access to all formulations of MOUD.

Willing to present orally: Yes

Financial Support: NIDA T32 DA037202; NIDA P30 DA029926

Prefix: Ms.

First Name: Elizabeth

Last Name: Saunders

Degrees: MA MD Ph.D etc:: MS

Email: elizabeth.c.saunders.GR@dartmouth.edu

Company Affiliation: The Dartmouth Institute for Health Policy and Clinical Practice

Mailing Address: 46 Centerra Parkway, Suite 301

City: Lebanon

State: NH

Zip/Postal: 03766

Country: United States

Phone: 6036467006

Membership Year: 2017

Sponsor: Dr. Alan Budney

Research Interests: Health Services,Treatment

ID: 293
Effects of a blueberry flavor reinforcer on nicotine self-administration in rats

Matthew Palmatier, East Tennessee State University, palmatier@etsu.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Nicotine/Tobacco

Topic: Behavior

Abstract: AIM Nicotine is a weak primary reinforcer, but enhances responding for non-drug reinforcers including conditioned reinforcers (CRs). Flavor additives in electronic nicotine delivery systems (ENDS) are CRs. We hypothesize that blueberry, a common flavor CR in ENDS, will promote nicotine self-administration in rats. METHODS Rats were assigned to Nicotine+CR (n=13), Nicotine+Novel Flavor (n=14), [JM1] or Nicotine-Alone groups. During flavor conditioning, the Nicotine+CR group had access to blueberry extract paired with sucrose, and Nicotine+Novel and Nicotine-Alone rats had access to unflavored sucrose and then all rats were instrumented for IV self-administration. For Nicotine+CR and Nicotine+Novel groups, licks at the active sipper delivered oral blueberry paired with IV nicotine (0, 7.5, 15, 30 ug/kg/infusion). For Nicotine-Alone rats, the active sipper delivered oral water paired with nicotine. Subsequently, the flavor was removed to simulate a ban on flavored ENDS products, and rats were allowed to respond for IV nicotine. RESULTS The low nicotine dose (7.5 ug/kg/infusion) appeared to inhibit, rather than enhance responding for nicotine paired with blueberry compared to vehicle rats responding for blueberry alone [p 0.05]. Data collection is ongoing for Nicotine-Alone rats, and for Nicotine+CR and Nicotine+Novel rats exposed to higher nicotine doses. Results from these groups will also be presented. CONCLUSION Thus far, our results suggest that low doses of nicotine may be aversive when paired with a blueberry flavor, which is surprising. If these outcomes are maintained once data collection is complete, this would indicate that flavors play little role in abuse of ENDS unless a sufficient quantity of nicotine is administered.

Willing to present orally: No

Financial Support: NIDA Grant DA046357.

Name of Sponsor (If you are NOT) a CPDD Member: Julie Marusich

Email Address of Sponsor : jmarusich@rti.org

Prefix: Dr.

First Name: Matthew

Last Name: Palmatier

Email: palmatier@etsu.edu

CC Email: palmatier@etsu.edu

Company Affiliation: East Tennessee State University

Mailing Address: Box 70649

Address 2: Psychology

City: Johnson City

State: TN

Zip/Postal: 37614

Country: United States

Phone: 4234304064

ID: 294
Sex differences in injecting drug use among newly incident users of cocaine and heroin in the United States (2002-2016)

Madhur Chandra, Michigan Sate University, chandr44@msu.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Other Drug Category: Cocaine

Topic: Sex Differences

Other Topic: Epidemiology

Abstract: AIM: The main aim is to present novel epidemiological evidence on male-female differences in injecting drug use (IDU) among newly incident users of cocaine and heroin. METHODS: The study population consists of United States community residents age 12 years and older (2002-03 to 2015-16), recruited and assessed for the National Surveys on Drug Use and Health. Ascertainment of newly incident cocaine use (n~1,032,000) and heroin use (n~149,000), as well as IDU (n~5000 for cocaine; n~46,000 for heroin) is from standardized item modules in confidential computerized self-interviews. Restricted Data Analysis System cross tabulations with Taylor series linearization generate IDU estimates for each year-pair under consideration. Fixed effects meta-analyses produce summary estimates for males and females by drug and across year-pairs. Random effects modeling was unnecessary (small heterogeneity I-squared; all p>0.05). RESULTS: A female excess risk of injecting drug use in relation to males is observed among newly incident users of heroin (p < 0 .05). No appreciable male-female difference in IDU is noted among newly incident cocaine users. Among females, an estimated 39% inject at or soon after 1st heroin use (95% CI= 33%, 46%); for males, the estimate is 23% (19%, 29%). The corresponding estimates for female and male newly incident cocaine IDU are much smaller, at 0.8% (0.6%, 1.1%) and 0.9% (0.7%, 1.2%), respectively. CONCLUSION: There is a robust male-female difference in IDU attack rates among new heroin users, but not among new cocaine users. We offer speculation about the contrasting variations across new user subgroups (e.g., prior injection of other drugs and within their social sharing networks, the role of the sexual partner as index case for each secondary case). Large IDU attack rates less than 12 months after first use should motivate strengthening of very early harm reduction, outreach, and intervention initiatives, especially for new heroin users for whom primary prevention has failed.

Willing to present orally: Yes

Financial Support: NIDA awards T32DA21129 (MC) and K05DA015799 (JCA).

Email Address of Sponsor : janthony@msu.edu

Prefix: Dr.

First Name: Madhur

Last Name: Chandra

Degrees: MA MD Ph.D etc:: Ph.D.

Email: chandr44@msu.edu

CC Email: mchandra@epi.msu.edu

Company Affiliation: Michigan Sate University

Mailing Address: 909 Wilson Road, B601 West Fee Hall

Address 2: Michigan State University

City: East Lansing

State: MI

Zip/Postal: 48824

Country: United States

Phone: 5173538623

Membership Year: 2014

Sponsor: Dr. James Anthony, Ph.D.

Research Interests: Epidemiology Prevention

ID: 295
Recruitment and treatment exposure of participants with opioid use disorder in a national drug abuse trial network

Mitra Lewis, The Emmes Corporation, mlewis@emmes.com

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Other

Other Topic: Recruitment and treatment exposure

Abstract: Aims: The National Drug Abuse Treatment Clinical Trials Network (NDAT CTN) is a network that conducts multi-site clinical trials in drug abuse, including Opioid Use Disorder (OUD). Data from completed trials are posted and publicly available on the National Institute on Drug Abuse (NIDA) Data Share website. Considering the opioid epidemic in the nation, the aim of this analysis is to characterize recruitment and treatment exposure across CTN trials targeting OUD. Methods: A search of the NIDA Data Share website (https://datashare.nida.nih.gov/) revealed 10 CTN trials conducted with a population where opioids were the primary substance of use. Eligibility criteria for these trials were examined to determine the population of interest, and 3 trials were excluded from analyses for not including participants with opioid dependence (DSM-IV)/opioid use disorder (DSM-5) or for including previously enrolled participants (long-term follow-up). The data and protocols from these remaining studies (n = 7) were pulled from the website to characterize recruitment and treatment exposure among participants. Results: To date, a total of 3,505 participants have been enrolled in NDAT CTN trials focusing on individuals with opioid dependence or opioid use disorder, of which 66% were male and 34% were female. The average observed versus expected treatment exposure was 75% across these seven trials, ranging from 62% to 88%. Conclusion: The recruitment of participants with OUD in multi-site clinical trials is in line with the sex breakdown of individuals with substance use disorder based on national survey data. The average treatment exposure in CTN trials focusing on the opioid use population is comparable to that in prior network studies overall (Wakim et al., 2011).

Willing to present orally: Yes

Financial Support: Support: National Institute on Drug Abuse HHSN271201500065C

Name of Sponsor (If you are NOT) a CPDD Member: Paul Van Veldhuisen

Email Address of Sponsor : pvanveldhuisen@emmes.com

Prefix: Mrs.

First Name: Mitra

Middle Initial: K

Last Name: Lewis

Degrees: MA MD Ph.D etc:: MS

Email: mlewis@emmes.com

Company Affiliation: The Emmes Corporation

Mailing Address: 401 N Washington St

Address 2: # 700

City: Rockville

State: MD

Zip/Postal: 20850

Country: United States

Phone: 301-251-1161

ID: 296
Improving knowledge of, attitudes toward, and referrals to medication assisted treatment in Ohio courts

Harlan Matusow, National Development and Research Institutes, matusow@ndri.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM: To improve MAT knowledge, attitudes and access in Ohio courts in order to facilitate MAT referrals of opioid use disorder (OUD) clients under court supervision. METHODS: Building upon previous research that documented barriers to MAT for people with OUD under court supervision, we developed two 20 minute MAT educational modules. With assistance from the Supreme Court of Ohio, 248 courts were assessed for eligibility (have OUD clients; limited to no MAT access). Among 120 responding judges, 29 met eligibility criteria and were enlisted in the study. A brief measure assessed knowledge and attitudes (K-A) toward MAT medications. RESULTS: K-A toward agonist medications were significantly (p

Willing to present orally: No

Financial Support: NIDA R34DA038799

Name of Sponsor (If you are NOT) a CPDD Member: Andrew Rosenblum, Ph.D., National Development and Research Institutes

Email Address of Sponsor : rosenblum@ndri.org

Prefix: Dr.

First Name: Harlan

Last Name: Matusow

Degrees: MA MD Ph.D etc:: Pd.D.

Email: matusow@ndri.org

CC Email: matusow@ndri.org

Company Affiliation: National Development and Research Institutes

Mailing Address: 11 Brooklands

Address 2: APT 3I

City: Bronxville

State: NY

Zip/Postal: 10708

Country: United States

Phone: 9143200350

Biography: Project director, co-investigator in addiction treatment research

ID: 297
Estimating LSD- & MDMA-specific hallucinogen dependence risks

Villisha Gregoire, Michigan Sate University, villisha.a.gregoire@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Dependence

Abstract: Aim: Paktar and colleagues draw attention to possibly increasing morbidity rates for users of drugs such as LSD and MDMA. In this study, we aim to compare hallucinogen dependence risks for newly incident LSD and MDMA users, with attention to three subgroups. Methods: Study populations for United States (US) National Surveys on Drug Use and Health (NSDUH), 2004-17, included non-institutionalized US civilians 12 years of age and older. After sampling, recruitment, and computer-assisted self-interviews, we identified 7095 newly incident hallucinogen users who started using < 1 2 months prior to assessment: 4337 LSD-only users, 1585 MDMA-only users and 1173 initiating both LSD and MDMA use. Analysis-weighted year-specific transition probabilities were estimated for each group, followed by logistic regressions with covariate adjustment. Meta-analysis provides summary estimates. Results: For LSD-only users, the meta-analysis shows that an estimated 2.2% develop dependence within 12 months after onset (95% CI= 1.5, 3.4). Corresponding estimates are 1.4% for MDMA-only users (95% CI= 0.8, 2.4) and 1.5% for users of both (95% CI= 0.2, 11.3). Covariate adjustments take into account potentially confounding variables and leave an initial impression of excess risk for newly incident users of both drugs. Conclusion: Variation in risk of developing hallucinogen dependence can be seen in these novel incidence analyses, as distinct from what is seen in prevalence analyses. The newly incident users of both forms of hallucinogen deserve more detailed study.

Willing to present orally: No

Financial Support: Support: MSU VPRGS Award (VG)

Prefix: Ms.

First Name: Villisha

Middle Initial: A

Last Name: Gregoire

Degrees: MA MD Ph.D etc:: BSc.

Email: villisha.a.gregoire@gmail.com

CC Email: villisha.a.gregoire@gmail.com

Company Affiliation: Michigan Sate University

Mailing Address: 3839 Hunsaker St.

City: East Lansing

State: MI

Zip/Postal: 48823

Country: United States

Phone: 3406426568

Membership Year: 2018

Sponsor: Dr. James Anthony, PhD

Research Interests: Epidemiology,Policy

ID: 298
An investigation of the reinforcing potential of Blue-181 in rats trained to self-administer heroin

David Heal, RenaSci Ltd., david.heal@renasci.co.uk

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Dependence

Abstract: Aim: Blue-181, a non-narcotic, small molecule, binds to a novel CNS target. Blue-181 is being developed as an analgesic devoid of addictive potential. We investigated the reinforcing potential of Blue-181 by IV self-administration in heroin-trained rats. Methods: Male, Sprague-Dawley rats were trained to selfadminister heroin (15µg/kg/injection [inj]) on a fixed-ratio (FR5) schedule of reinforcement. After saline extinction on FR5, the reinforcing effects of Blue-181 (0.3, 1, 3 and 10µg/kg/inj) or butorphanol (3, 10 and 30µg/kg/inj) were evaluated on FR5. The relative reinforcing effects of Blue-181, butorphanol and heroin were also compared by comparing the break-points for reinforcement on a progressive ratio (PR) schedule. Drug doses are expressed as base equivalents. Results are mean±sem, n=7-8. Results: Heroin maintained selfadministration in rats (19.5±0.3inj/session, n=28) at levels significantly greater ($p < 0.001$) than saline (5.2±0.1inj/session, n=28). All doses of butorphanol were reinforcing ($p < 0.001$) compared with saline (mean inj/session = 13.2±1.4, 14.7±2.2 and 13.9±1.9 for 3, 10 and 30µg/kg/inj, respectively). None of the doses of Blue-181 was reinforcing (mean inj/session = 5.9±0.6, 6.9±1.3, 8.9±2.0 and 7.8±1.4 for 0.3, 1, 3 and 10µg/kg/inj, respectively). The mean injections/session of all doses of Blue-181 were lower than heroin ($p < 0.001$) and butorphanol ($p < 0.05$-$p < 0.001$). Break-points for reinforcement by Blue-181 (0.3, 1, 3 and 10µg/kg/inj) were 10.0±2.4 [n=8], 11.6±2.2 [n=8], 14.6±3.8 [n=8], and 16.3±5.1 [n=8] lever- presses/session, respectively) and butorphanol (3, 10 and 30µg/kg/inj) of 25.1±6.7 [n=7], 34.2±6.5 [n=8], and 30.1±4.3 [n=7] lever-presses/session, respectively) were all significantly lower ($p < 0.001$) than heroin (68.8±10.2 lever-presses/inj [n=28]). Conclusion: Heroin and butorphanol were positively reinforcing on FR5, but butorphanol was less reinforcing than heroin on the PR schedule. Blue-181 did not serve as a reinforcer in heroin-maintained rats. Given the good predictive validity of the model, the results indicate Blue-181 will lack abuse potential in humans.

Willing to present orally: No

Financial Support: Experimental study supported by Blue Therapeutics

Prefix: Dr.

First Name: David

Middle Initial: J.

Last Name: Heal

Degrees: MA MD Ph.D etc:: Ph.D.,DSc

Email: david.heal@renasci.co.uk

CC Email: david.heal@renasci.co.uk

Company Affiliation: RenaSci Ltd.

Contact Title: Executive Director

Mailing Address: BioCity, Pennyfoot Street

City: Nottingham

State: Notts

Zip/Postal: NG1 1GF

Country: United Kingdom

Phone: 44 115 912 4261

Membership Year: 2010

Sponsor: Dr. Jack Henningfield and William Woolverton

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 299
Testing an epidemiologic theory of policy-shaped drug use onset curves

Barrett Montgomery, Michigan Sate University, Barrett.Montgomery@hc.msu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Policy

Abstract: AIM For most drugs, estimated age-specific rates for becoming newly incident users peak during transitional adolescent-adult years and then decline smoothly. In the United States (US), alcohol is an exception with peak incidence before age 19, deceleration, and then acceleration to a second peak at age 21 (the US legal minimum age, LMA). A viable explanatory theory involves heterogeneous subgroups within the US population, with a law-abiding subgroup inclined to delay onset until LMA is reached. We forecast emergence of a congruent acceleration-deceleration-acceleration pattern as states set minimum cannabis purchase age at 21 years. We estimate 2014-15 rates for 18 to 21-year-olds, contrasting US versus Colorado, a state that set 21 as the cannabis LMA in 2012. METHODS Study population multi-stage samples for US National Surveys on Drug Use and Health (NSDUH), 2014-2015, included ~9,700 non-institutionalized civilians aged 18 to 21. Computer-assisted self-interviews identified newly incident marijuana users (NIMU) with onset < 1 2 months before assessment. Shown below are analysis-weighted estimates. RESULTS For the US, estimated cannabis incidence is 7.2% per year at age 18, followed by smooth deceleration (6.0% at 19, 3.6% at 20, and 2.7% for 21-year-olds). For Colorado, corresponding estimates are 11.2% at 18 years, deceleration to 6.0% at age 19, and then plateau estimates of 6.0% at 20 years and 6.4% at 21 years (i.e., no smooth deceleration as expected). CONCLUSION These contrasting estimates do not yet qualify as strong evidence in support of the theory that cannabis LMA policy has started to shape age-specific incidence rates in our hypothesized acceleration-deceleration-acceleration pattern with two peaks in place of the generally seen single peak. The lag time for seeing such policy effects might be as long as 5-10 years if the cannabis experience follows US experience with alcohol LMA. More research is needed to look into the theorized policy-induced unique curve.

Willing to present orally: Yes

Financial Support: MSU Graduate Enrichment Fellowship award (BWM)and K05DA015799 (JCA)

Prefix: Mr.

First Name: Barrett

Middle Initial: Wallace

Last Name: Montgomery

Degrees: MA MD Ph.D etc:: B.S.

Email: Barrett.Montgomery@hc.msu.edu

CC Email: montgomerybarrett@gmail.com

Company Affiliation: Michigan Sate University

Mailing Address: 417 west liberty st

Address 2: apt 8

City: East Lansing

State: MI

Zip/Postal: 48103

Country: United States

Phone: 5082436744

Membership Year: 2018

Sponsor: Dr. James Anthony, PhD

Research Interests: Epidemiology,Policy

ID: 300
Sex differences in opioid reinforcement under a fentanyl vs. food choice procedure in rats

Drew Townsend, Virginia Commonwealth University, s52drew@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Sex Differences

Abstract: AIM: Clinical evidence suggest that men are more sensitive than women to the abuse-related effects of mu-opioid agonists. In contrast, preclinical studies suggest the opposite sex difference. The aim of the present study was to clarify this discrepancy using a novel fentanyl vs. liquid food choice procedure to assess sex differences in opioid reinforcement. METHODS: Sex differences in intravenous (IV) fentanyl self-administration were examined under a fixed-ratio (FR5) schedule, a multi-day progressive-ratio (PR) schedule for behavioral economic analysis, and a concurrent (choice) schedule of fentanyl and liquid food (vanilla flavor Ensure®, diluted with water) reinforcement in Sprague Dawley rats (n=18 male, 18 female). RESULTS: The fentanyl dose-effect function under the FR5 schedule was significantly shifted upward in females compared to males. Similarly, the reinforcing effectiveness of both fentanyl (3.2 and 10 µg/kg/inj, IV) and liquid food (18 and 56%) were greater in females than males as assessed using behavioral economic analysis, irrespective of dose or concentration. However, under a fentanyl vs. food choice procedure, males chose 3.2 µg/kg/inj fentanyl injections over 18%, but not 56%, liquid food at a higher percentage compared to females. CONCLUSION: Overall, these results suggest the expression of sex differences in opioid reinforcement depends upon the schedule of reinforcement. In addition, these findings suggest that preclinical opioid vs. food choice procedures may provide for a more translationally relevant experimental endpoint (i.e., behavioral allocation vs. rates of responding), as the choice data are consistent with the direction of sex differences reported in the clinical literature.

Willing to present orally: Yes

Financial Support: Research was supported by institutional professional development funds and the National Institute on Drug Abuse of the National Institutes of Health under Award Numbers UH3DA041146 and T32DA007027.

Prefix: Dr.

First Name: Drew

Last Name: Townsend

Email: s52drew@gmail.com

Company Affiliation: Virginia Commonwealth University

Mailing Address: 2001 East Broad Street

Address 2: Apt 114

City: Richmond

State: VA

Zip/Postal: 23223

Country: United States

Phone: 6012600360

Membership Year: 2015

Travel Award: 2017

Research Interests: Behavioral Pharmacology,Clinical Drug Development

ID: 301
Gray matter concentration of hippocampal and cerebellar regions associated with cocaine use severity and relapse: A follow-up voxel-based morphometric study

Caio Vinícius de Melo, University of Sao Paulo, caio.videmelo@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Imaging

Abstract: BACKGROUND: Structural neuroimaging studies comparing cocaine addicted subjects (CAS) with healthy controls (HC) suggest a variety of alterations on gray matter concentration (GMC), but findings are still controversial and the clinical relevance is still poor understood. AIM: To investigate GMC alterations between CAS and HC and its association with cocaine use variables and relapse. Our hypothesis is that cocaine use is associated with less GMC in frontal regions and structural alterations may be predictive factors for relapse after treatment. METHODS: T1-weighted brain MRIs were obtained on a Phillips Anchieva 3T scanner in 42 CAS (26 relapsed after 3 months of treatment) and 36 HC after urine toxicological screens became negative; SCID-IV and ASI were used to assess psychiatric diagnosis and substance use severity, respectively. Relapse was defined as the reoccurrence of cocaine use in a 3 months period. VBM analyses were conducted with SPM 12. Between-groups comparisons were investigated using the general linear model, including age and education (in years) as covariates. VBM results were considered significant only when comprising at least 10 voxels and surviving FWE correction for multiple comparisons (pFWE≤.050). RESULTS: CAS presented less GMC in inferior temporal cortex, inferior opercular frontal cortex and other parietal regions (pFWE≤.050) when compared with HC. Earlier onset of cocaine use was associated with less GMC on the inferior temporal cortex (pFWE = .027) and rolandic operculum (pFWE = .023); longer lifetime use (pFWE = .049) and recent cocaine use (pFWE = .011) were associated with less GMC on the inferior triangular frontal cortex. Follow-up analyses showed that relapsed subjects had less GMC in cerebellum and hippocampus (pFWE

Willing to present orally: No

Financial Support: Brazilian Council of Scientific and Technological Development (CNPq), grant #402721/2010-1;São Paulo Research Foundation (FAPESP), grant #2010/01272-6; Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES), grant #1703165.

Name of Sponsor (If you are NOT) a CPDD Member: Eric Strain

Email Address of Sponsor : estrain1@jhmi.edu

Prefix: Mr.

First Name: Caio Vinícius

Middle Initial: I

Last Name: de Melo

Email: caio.videmelo@gmail.com

CC Email: caio.videmelo@gmail.com

Company Affiliation: University of Sao Paulo

Mailing Address: 785 Ovídio Pires de Campos St

City: SÃO PAULO

State: SP

Zip/Postal: 05403-903

Country: Brazil

Phone: 1126610000

ID: 302
Stress, craving and mood as predictors of early dropout from opioid agonist therapy: Clues from Ecological Momentary Assessment

Kenzie Preston, NIDA Intramural Research Program, kpreston@intra.nida.nih.gov

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Treatment

Abstract: Aim: Early discontinuation of agonist maintenance is a major obstacle to success. The processes that lead to it might be clarified with intensive longitudinal monitoring—specifically, ecological momentary assessment (EMA), which has already provided unique insight into the effects of stress, mood, and craving during treatment. Methods: We collected EMA data for up to 17 weeks in 238 participants being treated with methadone or buprenorphine-naloxone. We used survival analysis to study two outcomes: dropping out of treatment and noncompliance with self-report procedures. The time-varying predictors were self-reports of stress, craving, and positive and negative mood. The person-level predictors were demographic and psychosocial variables measured with the Addiction Severity Index at the start of treatment. Results: Dropping out of treatment was more likely in participants who: 1) reported more hassles, higher levels of cocaine craving, and lower levels of positive mood (all via EMA); 2) had recent experiences of emotional abuse and being bothered frequently by psychological problems (both via ASI); and 3) were being maintained on buprenorphine rather than methadone. Noncompliance was only associated with more reported hassles (via EMA). Conclusion: Our results showed that people who drop out of treatment are not merely disengaged or indifferent: they continued to turn on their study-issued smartphones to make EMA stress reports at high rates, something they were not required to do. Dropout might be reduced by interventions that target stress, craving, and mood—or might at least be predicted by intensive assessment of those processes.

Willing to present orally: Yes

Financial Support: This research was supported by the Intramural Research Program of the National Institute on Drug Abuse, NIH. Z01 DA000499 and Z01 DA000175.

Prefix: Dr.

First Name: Kenzie

Middle Initial: L.

Last Name: Preston

Degrees: MA MD Ph.D etc:: Ph.D.

Email: kpreston@intra.nida.nih.gov

CC Email: clindsay@mail.nih.gov

Company Affiliation: NIDA Intramural Research Program

Contact Title: Acting Chief

Mailing Address: 251 Bayview Boulevard

Address 2: Suite 200, BRC

City: Baltimore

State: MD

Zip/Postal: 21224

Country: United States

Phone: (443) 740-2326

Fax: (443) 740-2318

Membership Year: 1992

Sponsor: R.R. Griffiths & G.E. Bigelow

Research Interests: Clinical Drug Development,Treatment

ID: 303
Testing an integrated bio-behavioral approach to improve adherence to pre-exposure prophylaxis and HIV risk reduction among methadone-maintained patients: The CHRP-BB study

Roman Shrestha, Yale University, roman.shrestha@yale.edu

Abstract Category: Program Descriptions

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Prevention

Abstract: AIM: Recent advancements in biomedical approaches (i.e., pre-exposure prophylaxis: PrEP) to reduce HIV transmission and the growing consensus that neither biomedical nor behavioral interventions alone are sufficient to curb the epidemic has led experts to call for combination approaches to HIV prevention. Existing methods of primary HIV prevention have largely relied on singular strategies (e.g., behavioral or biomedical alone) with modest HIV risk reduction outcomes among opioid-dependent people who use drugs (PWUD). In response, we developed a brief, bio-behavioral intervention to optimally address PrEP adherence and HIV risk reduction needs of high-risk opioid-dependent PWUD. METHODS: Using a randomized controlled trial (RCT) design, we are testing the efficacy and cost-effectiveness of an integrated bio-behavioral community-friendly health recovery program (CHRP-BB) vs. the standard of drug treatment (control condition) among high-risk HIV-negative, opioid-dependent PWUD who are enrolled in the methadone maintenance program in New Haven, CT. We are implementing a two-condition trial design where standard of drug treatment care plus being on PrEP remain constant and the experimental CHRP-BB intervention is being compared to a time-and-attention-matched control condition. Participants are assessed at baseline (T0), immediately post-intervention (8 weeks; T8) and follow-ups at 3- (T20), 6- (T32), and 9-month (T44) post-intervention measurement points. Outcomes assessed include PrEP adherence (bio-medically and behaviorally), self-reported HIV drug- and sex-related HIV risk behavior drug use (urine toxicology), and theoretical information-motivation-behavioral skills (IMB) behavior change domains related to PrEP adherence and HIV-transmission-risk reduction. CONCLUSION: The CHRP-BB study will be among the first to test the efficacy and cost-effectiveness of an integrated bio-behavioral approach to improve adherence to PrEP and HIV risk reduction among high-risk methadone-maintained PWUD. If efficacious and cost-effective, the CHRP-BB intervention could be rapidly disseminated for implementation as part of routine care within common drug treatment programs – a true integration of HIV prevention science and drug treatment services.

Willing to present orally: Yes

Financial Support: This work was supported by grants from the National Institute on Drug Abuse for research (R01 DA044867 to MMC) and for career development (K24 DA017072 to FLA; K02 DA033139 to MMC).

Name of Sponsor (If you are NOT) a CPDD Member: Michael M. Copenhaver

Email Address of Sponsor : michael.copenhaver@uconn.edu

Prefix: Dr.

First Name: Roman

Last Name: Shrestha

Degrees: MA MD Ph.D etc:: PhD

Email: roman.shrestha@yale.edu

CC Email: roman.shrestha@uconn.edu

Company Affiliation: Yale University

Mailing Address: 135 College Street, Suite 323

City: New Haven

State: CT

Zip/Postal: 06510

Country: United States

Phone: 9034070387

Sponsor: Dr. Michael Copenhaver, PhD

Research Interests: Epidemiology,Prevention

Date of Membership: applying for MIT 1.1.19

ID: 304
Extracting clinical documentation of patient medical cannabis use from primary care encounter notes using natural language processing

David Carrell, Kaiser Permanente Washington, david.s.carrell@kp.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Other

Other Topic: Measuring medical cannabis use documented in outpatient clinical notes

Abstract: Aim: Medical cannabis is legal in 33 (and recreational use in 10) US states, including Washington. Accurate data for studying medical cannabis use is sparse. Our two-phase study is 1) developing a gold standard corpus for training natural language processing (NLP) systems to extract information about patients' medical cannabis use from primary care encounter notes following routine screening for past-year cannabis use, and 2) developing and validating the NLP system. We report phase-1 results regarding the suitability of these notes as a source of NLP-extracted information about medical cannabis use. Methods: Our gold standard corpus was a random sample of encounter notes from 481,954 primary care visits at Kaiser Permanente Washington 2016–2018 among patients receiving routine past-year cannabis use screening. The corpus broadly represented practitioners and patients. We developed an annotation schema for annotating cannabis mentions and used it to manually annotate the corpus. We descriptively analyzed annotations and implemented a preliminary NLP model. Results: The 1,093-note gold standard corpus represented 1,022 patients and 429 providers. Annotated were 1,840 cannabis mentions, including 1,280 (70%) conveying information about patient use (medical or non-medical), and 560 (30%) unrelated to patient use. A five-category annotation schema accommodated all relevant mentions: 1) explicit medical use (e.g., "was prescribed cannabis"), 2) implicit medical use (e.g., "using marijuana for back pain"), 3) explicit non-medical use (e.g., "smokes weed recreationally"), 4) implicit non-medical use (e.g., "marijuana edibles at parties"), and 5) ambiguous content (e.g., "cannabis" without reason for use). Initial, simple NLP models for isolating mentions of patient use achieved AUC of 0.89 ±0.03 (mean ±SD) and are expected to improve. Conclusion: Primary care encounter notes contain language for developing and validating NLP systems for extracting information about medical cannabis use from primary care notes.

Willing to present orally: Yes

Financial Support: Funding: NIDA award CTN-0077, Medical Cannabis Use among Primary Care Patients.

Name of Sponsor (If you are NOT) a CPDD Member: Andrew J. Saxon, MD

Email Address of Sponsor : Andrew.Saxon@va.gov

Prefix: Mr.

First Name: David

Middle Initial: S

Last Name: Carrell

Degrees: MA MD Ph.D etc:: PhD

Email: david.s.carrell@kp.org

Company Affiliation: Kaiser Permanente Washington

Mailing Address: 1730 Minor Ave

Address 2: Suite 1600

City: Seattle

State: WA

Zip/Postal: 98101

Country: United States

Phone: 206-287-2705

Biography: https://www.kpwashingtonresearch.org/our-research/our-scientists/carrell-david/

ID: 305
Stress, craving, and psychological flow during work in a therapeutic workplace

Jeremiah Bertz, National Institute on Drug Abuse, jeremiah.bertz@nih.gov

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM Using ecological momentary assessment (EMA), we previously found psychological benefits of being at work (e.g., less stress and craving, more happiness) in people in treatment for opioid use disorders working community jobs. We sought to replicate and extend those findings using a contingency-management-based therapeutic workplace (TW), where the nature of participants' work was standardized (skills training for data entry), and we could exert experimental control over work schedules. METHODS Heroin-dependent adults (n = 161 providing EMA, 55.9% male) were employed in the TW for up to 110 days. At intake, participants were randomized to immediate TW access (immediate work group, IWG), allowing them to work 4 hours/day Monday-Friday, or to a 4-week waitlist-delay condition (delayed work group, DWG), providing payment like IWG but otherwise preventing TW access. Both groups had thrice-weekly urinalysis. One week after randomization, all participants were issued smartphones to report their emotions and activities in daily life via EMA. RESULTS In mixed linear models, participants reported by EMA less stress, less cocaine craving, less heroin craving, and more happiness at work vs. elsewhere, replicating our prior findings. Participants also reported more flow-like experiences at work vs. elsewhere, extending those findings. However, randomization did not produce expected results. DWG reported more stress and craving throughout, with no significant interactions with TW access. Craving for heroin and cocaine decreased over time for both groups. DWG reported initially less happiness but ultimately more happiness than IWG. CONCLUSION We observed psychological benefits associated with being at work, even without individual participants' self-selection to particular jobs. Differences between DWG and IWG remained when DWG worked, suggesting waitlist assignment itself may have affected participants. These results help clarify some of the ways that work, and work-based contingency management, could contribute to recovery from substance use disorders.

Willing to present orally: Yes

Financial Support: Supported by NIDA IRP and R01DA037314

Name of Sponsor (If you are NOT) a CPDD Member: Kenzie L. Preston

Email Address of Sponsor : KPRESTON@intra.nida.nih.gov

Prefix: Dr.

First Name: Jeremiah

Middle Initial: W

Last Name: Bertz

Email: jeremiah.bertz@nih.gov

CC Email: jeremiah.bertz@nih.gov

Company Affiliation: National Institute on Drug Abuse

Mailing Address: 251 BAYVIEW BLVD

Address 2: RM 01B340

City: Baltimore

State: MD

Zip/Postal: 21224

Country: United States

Phone: 4437402289

ID: 306
Non-drug pleasure in patients on opioid agonist treatment: Consummatory and anticipatory pleasure and the relationship to clinical and demographic characteristics

Samuel Stull, NIDA Intramural Research Program, sam.stull@nih.gov

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM:People with opioid use disorder(OUD) may experience a lack of interest in or enjoyment of non-drug-related sources of pleasure. We used the Temporal Experience of Pleasure Scale(TEPS), which was developed as a trait measure of anhedonia, to assess consummatory and anticipatory pleasure in OUD outpatients and to determine whether either or both would be related to their drug-use patterns during treatment. METHODS:84 outpatients(65 men) receiving methadone(n = 30) or buprenorphine(n = 54) therapy for up to[8] weeks completed the TEPS upon study intake, along with demographic measures and trait measures of impulsivity(Barratt Impulsivity Scale) and delay discounting(Monetary Choice Questionnaire). Opioid and cocaine use was assessed by urine drug screens twice or thrice weekly. Hierarchical clustering categorized participants' in-treatment drug-use patterns as either predominantly abstinent(n = 48) or predominantly positive for cocaine and/or illicit opiates(n = 36). Statistical analysis started with bivariate screening of potential predictors, followed by MANCOVA(Wilks'Λ) to test for associations between consummatory and anticipatory pleasure and drug-use pattern, controlling for race, age, sex, and delay discounting. RESULTS:In the MANCOVA, pleasure scores were not related to drug-use pattern(ηp2=.01, p = .62) or delay discounting(ηp2=.04, p = .21). However, there were significant differences by sex and race: men scored higher than women on anticipatory pleasure(ηp2=.21, p

Willing to present orally: Yes

Financial Support: Supported by the NIDA IRP

Name of Sponsor (If you are NOT) a CPDD Member: Kenzie Preston

Email Address of Sponsor : kpreston@intra.nida.nih.gov

Prefix: Mr.

First Name: Samuel

Middle Initial: W.

Last Name: Stull

Degrees: MA MD Ph.D etc:: BA

Email: sam.stull@nih.gov

CC Email: Rayfield.Yarbrough@nih.gov

Company Affiliation: NIDA Intramural Research Program

Mailing Address: 251 Bayview Blvd.

City: Baltimore

State: MD

Zip/Postal: 21224

Country: United States

Phone: 4437402290

ID: 307
Does medical and non-medical use of benzodiazepines and prescription opioids vary by Insurance status?

Vitor Tardelli, Universidade Federal de Sao Paulo, vitorstardelli@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Other Drug Category: & Benzodiazepines

Topic: Epidemiology

Abstract: Aim: Most drug poisoning deaths in the US involve both benzodiazepines (BZD) and prescription opioids (POs). Insurance status is linked to poor access to treatment. Our aim is to investigate the association between BZDs and POs use and insurance status. Methods: Data were obtained from the National Survey on Drug Use and Health (NSDUH) population 18+ (n=83,311). Past-year BZDs and POs users were classified as medical use/non-medical use of BZDs only, POs only and co-use of BZDs and POs. Insurance status was defined as 1-Private & Military (Private), 2-Medicare, 3- Medicaid and 4- Uninsured. After descriptives, a weighted multinomial logistic regression model estimated relative odds ratios (aOR) for the drug variables by insurance categories, adjusted by age, gender, socioeconomic status (SES) as yearly income and ethnicity. Results: Prevalence of any past-year use was 36.8% for BZDs, 38.1% for POs and 8.1% for co-use. Most of the sample (60.08%) had Private insurance, 8.96%, Medicare, 18.56%, Medicaid, and 12.40% were Uninsured. Those in the Medicare and Medicaid groups had higher odds of medical co-use as compared to those with Private (BZDs: aORs ranged from1.59 to 2.26; POs: aORs=1.66-1.78; both: aORs=2.10-2.79), while Uninsured had lower odds of BZDs only (aOR=0.88) and POs only (aOR=0.83) medical use compared to Private. For all drug categories when compared to Private, Medicaid and Uninsured individuals presented higher odds of non-medical use (BZDs: aORs 1.33-1.52; POs: aORs=-1.36-1.62; both: aOR=-1.41-1.80). Medicare population presented higher odds of non-medical use of POs only, compared to Private (aOR=1.61). Conclusion: Those that report having Medicaid insurance had higher odds of medical and non-medical use of BZDs, POs and PO/BZD as compared to those with private insurance, even when controlling for SES. This might reflect disparities in quality of care between those types of medical insurance.

Willing to present orally: Yes

Financial Support: R01DA037866 (Martins)

Name of Sponsor (If you are NOT) a CPDD Member: Silvia Martins

Email Address of Sponsor : ssm2183@cumc.columbia.edu

Prefix: Dr.

First Name: Vitor

Middle Initial: S

Last Name: Tardelli

Degrees: MA MD Ph.D etc:: MD, MS

Email: vitorstardelli@gmail.com

Company Affiliation: Universidade Federal de Sao Paulo

Mailing Address: Rua Japuanga 239

City: Sao Paulo

State: SP

Zip/Postal: 05455010

Country: Brazil

Phone: +5511995255846

ID: 308
Phenotype of recovery: Valuation of delayed rewards mediates the relationship of substance use and hedonic value of food

Derek Pope, Virginia Tech Carilion Research Institute, dap0017@vt.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: The abstract describes a study using the International Quit and Recovery Registry; participants had to have had some drug addiction and are now working their way through recovery. Participants report a primary addiction and often a secondary addiction.

Topic: Dependence

Other Topic: Recovery from Drug Addiction

Abstract: AIM. The International Recovery Registry (IQRR) is an international online community for those in recovery from addiction that permits inquiry into the phenotype of recovery through various assessments. During the recovery process, time/behavior typically allocated to drug-related behavior must be reallocated to other/new activities. Food is one possible powerful reinforcer that, like drugs, is brief, intense, and reliable reinforcer that may fill this void in people in recovery. The present study examined if the reinforcing/hedonic value of food is higher in those in recovery compared to controls and if delay discounting mediated this relationship. METHODS. The present study obtained data from 212 participants in recovery from addiction using the IQRR and 213 participants without a history of substance abuse using mTurk. Both groups completed online demographic questions including BMI, the Power of Food (PoF) scale, and delay discounting. RESULTS. Both PoF scores and delay discounting rates (ln[k]) were overall elevated in the IQRR compared to the mTurk Control, regardless of BMI. A mediated path analysis further revealed that delay discounting was a partial mediator of the relationship of group (IQRR or Control) and PoF. CONCLUSION. The present study demonstrated that participants in recovery from addiction both more greatly value food and discount at higher rates than controls. These effects were independent of BMI, but delay discounting was a partial mediator of the relationship of Group and PoF. We hypothesized the higher value of food for IQRR occurs because food is serving as a substitute for drugs which are not available.

Willing to present orally: Yes

Financial Support: The research presented was supported by the Virginia Tech Carilion Research Institute and

Prefix: Dr.

First Name: Derek

Middle Initial: A

Last Name: Pope

Degrees: MA MD Ph.D etc:: PhD

Email: dap0017@vt.edu

CC Email: dap0017@vtc.vt.edu

Company Affiliation: Virginia Tech Carilion Research Institute

Mailing Address: 2 Riverside Circle

City: Roanoke

State: Va

Zip/Postal: 24016

Country: United States

Phone: 540-336-2455

ID: 309
An evidence-based evaluation of the possible influence of gender on results from abuse and dependence liability testing in rats

David Heal, RenaSci Ltd., david.heal@renasci.co.uk

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Other (specify)

Other Drug Category: All substances of abuse

Topic: Sex Differences

Abstract: Aim: The guidance on non-clinical abuse testing issued by FDA states that testing should be performed in males and females (CDER/FDA, 2017). We have conducted an evidence-based assessment to determine whether there are gender differences between the results from intravenous self-administration (IVSA), drug-discrimination and tolerance/dependence tests performed in male and female rats. Methods: Drug-discrimination was performed in female rats with d-amphetamine, MDMA, midazolam and phencyclidine as training cues. IVSA experiments were performed with heroin and (-)pentazocine in male and female rats, and in males with cocaine, MDMA and nicotine. Tolerance/dependence testing was performed in male and female rats with morphine and diazepam. Other results were obtained from literature searches. Results: When training female rats to discriminate drugs from vehicle, we have not observed any day-to-day variability in acquiring the drug cues, i.e. through their oestrus cycle. The profiles of reference drugs for generalisation d-amphetamine, MDMA, midazolam and phencyclidine in female rats were totally consistent with published results obtained using males. In our laboratories, heroin and (-)pentazocine served as a reinforcers in both male and female rats. Cocaine, methamphetamine, MDMA, phencyclidine, ketamine, and nicotine also served as reinforcers in male and female rats (‘in house’ and published data). Using identical dosing regimens in male and female rats, morphine and diazepam produced unequivocal signs of withdrawal-induced physical dependence in both genders. Pharmacological tolerance to the effects of morphine and diazepam was observed in both males and females. Although minor gender differences occurred, withdrawal-induced dependence was equally detectable in males and females. Conclusions: Drug-discrimination testing – no advantage to testing in males and females. IVSA testing – no advantage to testing in males and females. Evaluation of tolerance/physical dependence liability - no evidence of male/female differences. Since the database is small possible gender differences exist. The implications for regulatory abuse/dependence testing will be discussed.

Willing to present orally: No

Financial Support: None

Prefix: Dr.

First Name: David

Middle Initial: J.

Last Name: Heal

Degrees: MA MD Ph.D etc:: Ph.D.,DSc

Email: david.heal@renasci.co.uk

CC Email: david.heal@renasci.co.uk

Company Affiliation: RenaSci Ltd.

Contact Title: Executive Director

Mailing Address: BioCity, Pennyfoot Street

City: Nottingham

State: Notts

Zip/Postal: NG1 1GF

Country: United Kingdom

Phone: 44 115 912 4261

Membership Year: 2010

Sponsor: Dr. Jack Henningfield and William Woolverton

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 310
Adulterants and altruism: A qualitative investigation of “drug checkers” in North America

Joseph Palamar, New York University School of Medicine, joseph.palamar@nyu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Club/Designer Drugs

Topic: Epidemiology

Abstract: Aims: Party drugs such as ecstasy/MDMA/Molly and LSD are often adulterated or replaced with new psychoactive substances (NPS) or other more harmful substances. For example, ecstasy is commonly adulterated with synthetic cathinones (“bath salts”) and LSD is sometimes replaced with NBOMe. Unintentional exposure to these NPS can increase potential harm associated with use. “Drug checking” has become a common harm reduction method used to test such drugs to determine whether adulterant drugs are present. In this study we investigated the phenomenon of drug checking. Methods: We conducted in-depth interviews with 26 adults in North America (i.e., United States, Canada, Mexico) who self-identified as drug checkers. Coding was conducted in an inductive manner using a grounded approach and thematic analysis was used to identify relevant themes. Results: Common themes were identified including motivations for drug checking, legal limitations, and the extent of adulterants detected when drug checking. While the majority of checkers (88%) volunteered for a drug checking organization, others were not formally affiliated with such organizations. Motivations were driven primarily by altruism, described by subjects as wanting to protect their peers or friends from exposure to adulterants and to allow them to make informed decisions regarding use. Since reagent test kits are often considered paraphernalia, checkers were oftentimes limited to testing at homes or in non-public spaces. Thus, legal limitations were described as making it difficult for drug checking to occur at certain events. Conclusions: Drug checkers seek to educate drug users about risk of unintentional exposure to NPS, but they appear to face various legal obstacles. Drug checking has become particularly important as prevalence of drugs adulterated with fentanyl continues to rise. More research is needed to inform policy and how to balance legal risks (for users and checkers) with the need to continue this harm reduction practice.

Willing to present orally: Yes

Financial Support: Research reported was supported by the National Institute on Drug Abuse of the National Institutes of Health under Award Numbers K01DA038800 and P30DA011041.

Name of Sponsor (If you are NOT) a CPDD Member: Joseph Palamar

Email Address of Sponsor : joseph.palamar@nyu.edu

Prefix: Dr.

First Name: Joseph

Middle Initial: J.

Last Name: Palamar

Degrees: MA MD Ph.D etc:: Ph.D., MPH

Email: joseph.palamar@nyu.edu

Company Affiliation: New York University School of Medicine

Mailing Address: 180 Madison Avenue

Address 2: Room 1752

City: New York

State: NY

Zip/Postal: 10016

Country: United States

Phone: 6465013555

Membership Year: 2014

Sponsor: Dr. Danielle Ompad and Dr. Judith Brook

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 311
Identifying patterns of poly-tobacco use to predict longitudinal changes in tobacco and substance use disorder symptoms among U.S. adolescents

Philip Veliz, University of Michigan, ptveliz@umich.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Adolescent

Abstract: Aims: The objective of this study is to identify unique patterns of e-cigarette use, cigarette use, and other tobacco use over-time and assess how these patterns influence longitudinal changes in symptoms of tobacco use disorders (TUD) and substance use disorders (SUD) among a sample of adolescents. Methods: Data from U.S. adolescents who were surveyed for the Population Assessment of Tobacco and Health study at baseline and first follow-up (2013-14/2014-15;n=13,651) was used for the analysis. Results: Among respondents who indicated tobacco use during the two waves of the study (n=1551), the Latent Class where model fit was assessed using both the BIC and entropy measures, indicated that a four-class solution for the past-year tobacco use items at wave 1 and 2 was the best fitting model. The four classes identified tobacco users in the following way: (1) other tobacco use at wave 1 to no use at wave 2 (16.2%), (2) no use at wave 1 to e-cigarette use at wave 2 (24.0%), (3) no use at wave 1 to cigarette use at wave 2 (18.9%), and (4) poly tobacco use at both wave 1 and wave 2 (40.9%). Respondents who were classified in groups 3 and 4 had the highest mean symptom count for both SUD (1 symptom; M=1.05[SE=.033], M=.921[SE=.048], respectively) and TUD (2 symptoms; M=1.82[SE=.093], M=2.31[SE=.113], respectively) when compared to respondents who were classified in groups 1 and 2 (less than half a symptom). The greatest increase in SUD and TUD symptoms were found among respondents classified in group 3 (M=.676[SE=.015]; M=1.83[SE=.093], respectively), when controlling for confounding factors. Conclusion: Individuals who transitioned to e-cigarette use were at relatively low risk for increased TUD and SUD symptoms. However, the co-occurrence of using e-cigarettes with other nicotine/tobacco products was associated with more symptoms of TUD and SUD.

Willing to present orally: No

Financial Support: Supported by research grants R01CA203809, R01CA212517, R01DA031160, R01DA036541 and R01DA044157.

Name of Sponsor (If you are NOT) a CPDD Member: Carol Boyd

Email Address of Sponsor : caroboyd@med.umich.edu

Prefix: Dr.

First Name: Philip

Last Name: Veliz

Email: ptveliz@umich.edu

CC Email: ptveliz@umich.edu

Company Affiliation: University of Michigan

Mailing Address: 917 West Liberty

City: Ann Arbor

State: MI

Zip/Postal: 48103

Country: United States

Phone: 7168672583

ID: 312
Criminal justice history for individuals with opioid use disorder (OUD) presenting to a community substance use treatment center and intention for medication assisted therapy (MAT)

Dharushana Muthulingam, Yale University School of Medicine, dharushana.muthulingam@yale.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim The OUD epidemic is especially concentrated in the criminal justice system (CJS). Overdose is the leading cause of mortality among incarcerated individuals transitioning to the community and many initiate treatment involuntarily from CJS requirements. MAT can significantly reduce the risk of death and relapse in this transition period but the characteristics of this transitioning population are not well known. We compare patients with OUD and differing CJS experiences presenting to initiate care at a large community substance use treatment center. Methods: Participants were eligible if age ≥18, met criteria for OUD, and were presenting for care initiation. Survey included summary of treatment options and queried demographics, experience, and preferences. Chi-squared test compared categorical variables. Results Of 195 individuals with OUD presenting to start care, 64.1% had history of incarceration, of whom 54% had been incarcerated 30 days prior to presentation. Of all, 24% had been legally compelled to treatment. Those with any incarceration history were more likely to be men, Hispanic, and MAT-experienced (24.6% vs 15%, p=0.025). Those recently incarcerated were more likely to be Black and less likely to have injected (27.4% vs 40.3%, p =0.0298). Those who had been legally required to present for treatment were more likely to be men and had less intention to start MAT (78.7% vs 85.1%, p=0.0492). Conclusion Most of those presenting for OUD care in our study have an incarceration history, half of whom, recently. A quarter of new OUD patients had been legally ordered to present. Remote incarceration had higher likelihood of injection behavior, while those with civil commitment were less likely to intend MAT initiation, indicating unique risk factors and suggesting tailored counseling strategies are warranted. Additional studies should evaluate motivations and barriers to care to better target counseling and outreach for this high-risk population.

Willing to present orally: Yes

Financial Support: This work was supported by the NIH (NIDA R01 DA033679, NIAID T32 AI007517) and the APT Foundation.

Prefix: Dr.

First Name: Dharushana

Last Name: Muthulingam

Degrees: MA MD Ph.D etc:: MD

Email: dharushana.muthulingam@yale.edu

Company Affiliation: Yale University School of Medicine

Mailing Address: 135 College Street, Suite 323

City: New Haven

State: CT

Zip/Postal: 06510

Country: United States

Phone: 2037814600

ID: 313
Alexithymia, emotional regulation strategies, and the role of traumatic experiences in prenatally cocaine exposed young adults.

Kristen Morie, Yale University, kpmorie@gmail.com

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Perinatal

Abstract: Aim: Deficits in emotional regulation skills may have important repercussions for mental health and behavior, notably in those from high-risk environments. Trauma exposure may lead to maladaptive characteristics like alexithymia, and ultimately to poorer emotional regulation. Prenatal substance exposure may influence this. We predicted increased alexithymia in those with prenatal cocaine exposure (PCE), that emotional neglect would be associated with alexithymia, and that alexithymia would be associated with poor emotional regulation. A moderated mediation model was developed to examine the effect of PCE status on this relationship. Methods: 44 prenatally cocaine exposed and 21 young adults with no such exposure (NCE) were recruited for the study. Between the ages of 18-21 years, they completed the Childhood Trauma Questionnaire (CTQ). Between the ages of 21-24 years, they completed the Toronto Alexithymia Scale (TAS-20) and the Emotion Regulation Questionnaire (ERQ). Correlations were performed between the scores on the TAS-20, the ERQ, and subscales of the CTQ. Moderated mediation was examined for the effect of substance exposure status on the relationship between trauma, alexithymia and emotional regulation. Results: Individuals with PCE showed evidence of higher alexithymia. Significant correlations existed between alexithymia and emotional neglect and alexithymia and emotional reappraisal and suppression. A moderated mediation model for reappraisal illustrated that PCE status was associated with alexithymia, and moderated the indirect relationship between emotional neglect, alexithymia, and emotional reappraisal in PCE but not NCE individuals. A moderated mediation model for suppression illustrated that PCE status was associated with alexithymia, and moderated the indirect relationship between emotional neglect, alexithymia, and suppression in NCE but not PCE individuals. Conclusions: Emotional neglect is associated with alexithymia later in life. Emotional neglect and alexithymia in PCE individuals may lead to poorer reappraisal abilities, while emotional neglect and alexithymia in NCE individuals leads to increased use of suppression strategies.

Willing to present orally: Yes

Financial Support: K01 DA042937

Prefix: Dr.

First Name: Kristen

Last Name: Morie

Degrees: MA MD Ph.D etc:: Ph.D

Email: kpmorie@gmail.com

CC Email: kpmorie@gmail.com

Company Affiliation: Yale University

Mailing Address: 1 Church St

City: New Haven

State: CT

Zip/Postal: 06510

Country: United States

Phone: 9144622110

Travel Award: 2018

ID: 314
The effects of a recombinant humanized anti-cocaine monoclonal antibody and its Fab fragment on the urinary clearance of cocaine and metabolites in rats

Jordan Marckel, University of Cincinnati, College of Medicine, marckeja@mail.uc.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Stimulants

Topic: Treatment

Abstract: AIM Previously, our lab investigated the effects of the intact recombinant humanized anti-cocaine monoclonal antibody, known as h2E2, on the urinary clearance of cocaine and its metabolites in rats. In the presence of h2E2, cocaine and BE urinary excretion was significantly ($p < 0.05$, t-test) decreased by 92% and 91%, respectively from vehicle controls. However, there was a 3.4-fold increase in EME urinary excretion in h2E2 treated rats. The Fab fragment of h2E2 has a very different pharmacokinetic profile than the intact antibody counterpart while maintaining its binding affinity to cocaine. The Fab fragment has a distribution half-life of 16.7 minutes and elimination half-life of 7.1 hours in comparison to h2E2 which has a distribution half-life of 5.3 hours and elimination half-life of 7.1 days. Therefore, we investigated the effects of the Fab fragment on the urinary excretion of cocaine and its metabolites to compare the results to h2E2, its whole antibody counterpart. METHODS 11 adult male Sprague-Dawley rats were placed individually in metabolic cages. After a 48-hour acclimation period, urine was collected every 3 hours over 24 hours to provide a baseline measurement of urine output. Fab fragment (82 mg/kg i.v.,n=6 rats)(PBS, pH 7) or an equivalent volume of vehicle (n=5rats)(PBS, pH 7) was infused. One hour after Fab fragment/vehicle infusion, an equimolar dose of cocaine HCl (0.56 mg/kg, i.v.) was rapidly injected. Rats were returned to the metabolic chambers, and urine collected every 3 hours over 24 hours. Cocaine, benzoylecgonine (BE), and ecgonine methyl ester (EME) were quantified using LC-MS/MS. RESULTS/CONCLUSION The urinary excretion of cocaine, BE, and EME in the presence of Fab fragment was determined to be not significantly different from vehicle controls. These results indicate that urinary excretion of Fab bound to cocaine and BE produces dramatically different urinary excretion profiles of cocaine and metabolites in rats compare to intact h2E2.

Willing to present orally: No

Financial Support: Supported by NIDA grant U01DA039550

Prefix: Ms.

First Name: Jordan

Last Name: Marckel

Degrees: MA MD Ph.D etc:: BS

Email: marckeja@mail.uc.edu

Company Affiliation: University of Cincinnati, College of Medicine

Mailing Address: 41 Kyles Lane

Address 2: Unit 2

City: Cincinnati

State: OH

Zip/Postal: 41075

Country: United States

Phone: 2606685980

Membership Year: 2018

Sponsor: Dr. Andrew B. Norman, PhD

Research Interests: Behavioral Pharmacology,Treatment

ID: 315
Influence of oxytocin on neuroendocrine and subjective response to a social stress task in cocaine-dependent men and women

Brian Sherman, Medical University of South Carolina, shermanb@musc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Sex Differences

Other Topic: Stress Respone, Treatment Development

Abstract: AIM: To examine the impact of oxytocin on neuroendocrine and subjective response to a social stress task in cocaine-dependent individuals. To explore sex and ovarian hormones as potential moderators of this response. Cocaine use is associated with dysregulation of the hypothalamic-pituitary-adrenal (HPA) axis, which plays a critical role in the body's stress response. Following a social stress task, cocaine-dependent individuals show greater subjective response compared to controls, and women show blunted cortisol response compared to men. The hypothalamic neuropeptide oxytocin is involved in anxiolytic and natural reward processes, and has shown therapeutic potential for addictive disorders and stress reduction. METHODS: 112 cocaine-dependent individuals (M age 42) were randomized to receive 40 IUs intranasal oxytocin (n=56) or matching placebo (n=56). Forty minutes after drug administration participants were exposed to a social stressor (Trier Social Stress Task – TSST). Generalized linear mixed models were used to examine neuroendocrine (cortisol) and subjective (craving, stress) response at Pre-TSST, TSST+0, +10, +30, +60 minutes. RESULTS: Neuroendocrine response: Sex moderated the effect of oxytocin on neuroendocrine response over time (p=0.048); women receiving oxytocin showed blunted cortisol response compared to the other three groups. There was no effect of ovarian hormones on neuroendocrine response. Subjective response: There was a main effect of sex on stress response following the TSST; women reported greater stress compared to men (p=0.016). There was no effect of sex on craving response. There was no effect of oxytocin on craving or stress, and sex did not moderate the effect of oxytocin on either measure. Higher endogenous progesterone was associated with lower craving response in women (p=0.033). There was no effect of estradiol. CONCLUSION: Women may be at greater risk for cocaine-relapse in response to social stressors, and ovarian hormones could attenuate this effect. Oxytocin may have differential effects in cocaine-dependent men and women.

Willing to present orally: Yes

Financial Support: K23DA045099 (PI Sherman) P50DA016511 (PI Brady)

Prefix: Dr.

First Name: Brian

Middle Initial: J

Last Name: Sherman

Degrees: MA MD Ph.D etc:: Ph.D.

Email: shermanb@musc.edu

Company Affiliation: Medical University of South Carolina

Mailing Address: 125 Doughty Street

Address 2: Suite 190

City: Charleston

State: SC

Zip/Postal: 29403

Country: United States

Phone: 917-399-9494

Sponsor: Dr. Aimee McRae-Clark, Pharm D and Dr. Kathleen Brady, PhD

Research Interests: Pharmacology,Treatment

ID: 316
Treatment and care for people with drug use disorders in contact with the criminal justice system: Alternatives to conviction or punishment

Anja Busse, UNODC, anja.busse@un.org

Abstract Category: Program Descriptions

Abstract Detail: Human

Drug Category: Polydrug

Topic: Treatment

Abstract: AIM Treatment of drug use disorders is best provided through quality health and social services. UNODC and WHO have explored and summarized options in line with the International Drug Control Conventions to provide drug treatment to people with drug use disorders who are in contact with the criminal justice system as an alternative to conviction or punishment. A respective guidance document launched by UNODC and WHO aims at enhancing the understanding and practical application of treatment as an alternative measures to conviction or punishment. The poster aims at highlighting the findings of this UNODC/WHO initiative and at seeking further input from the international scientific community. METHODS UNODC and WHO reached out to UN Member States and received inputs from more than 50 countries about their current approaches to provide drug use disorder treatment as an alternative to conviction or punishment. Two expert group meetings were held in 2016 and 2017 with more than 60 participants from all regions of the world. Based on the information gathered a technical guidance document has been published which is being disseminated through direct technical assistance and country level workshops that furthermore generate new information. RESULTS The provision of treatment as an alternative to conviction or punishment can be implemented at all stages of the criminal justice process (pre-trial, trial, post-trial) in line with the International Drug Control Conventions and other relevant legal documents (Tokyo Rules, Bangkok Rules). The approach is being applied in different legal systems and in countries with different socioeconomic conditions. CONCLUSION Investing in treatment as an alternative to conviction or punishment has been found to be an effective public health and public safety strategy. Moving from a coercive approach to a cohesive approach requires the involvement of all relevant stakeholders and close collaboration between the health, the social and the justice sector as well as a concerted investment in evidence-based treatment services in the community.

Willing to present orally: Yes

Financial Support: This initiative and the handbook has been jointly developed by the United Nations Office on Drugs and Crime (UNODC) and the World Health Organization (WHO). The work of UNODC and WHO is supported by UN Member States.

Name of Sponsor (If you are NOT) a CPDD Member: Gilberto Gerra

Email Address of Sponsor : gilberto.gerra@un.org

Prefix: Ms.

First Name: Anja

Last Name: Busse

Email: anja.busse@un.org

CC Email: christina.gamboa.riano@un.org

Company Affiliation: UNODC

Mailing Address: P.O. Box 500 A-1400 Vienna, Austria

City: Vienna

State: Vienna

Zip/Postal: 1400

Country: Austria

Phone: +43 699 1459 4389

ID: 317
Association between methadone use during detoxification and long acting injectable naltrexone induction failure

Matisyau Shulman, Columbia University and NYSPI, shulman@nyspi.columbia.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Long-acting injectable naltrexone is an effective maintenance treatment for opioid use disorder, but induction from active opioid use is a significant challenge as individuals must complete detoxification before induction. Use of long acting agonist medication as a strategy for detoxification may interfere with induction by increasing the time required before injection. AIM: To determine whether use of methadone, a long acting full agonist opioid commonly used for detoxification, was associated with decreased likelihood of induction onto long acting injectable naltrexone. METHODS: We performed a secondary analysis of a large open label randomized trial of buprenorphine versus long acting injectable naltrexone for treatment of individuals with opioid use disorder recruited from eight detoxification and/or short-term residential units from 2014 to 2016. This analysis only included individuals randomized to the long acting injectable naltrexone arm of the trial (N= 287). ANALYSIS: A logistic regression model was fit to test if receipt of any methadone (binary yes/no) or days of receipt of methadone (continuous count) was associated with induction onto long acting injectable naltrexone. This model was fit with and without site as a random effect. RESULTS: Having at least one day of methadone (OR 0.43, p= 0.0018) and number of days on methadone (0.87, p= .0019) were significantly associated with decreased likelihood of induction onto long acting injectable naltrexone. After controlling for site as a random effect this was no longer statistically significant. CONCLUSIONS: Use of methadone during detoxification was associated with long acting injectable naltrexone induction failure in this large multisite trial. Induction strategies differed by site, and sites that primarily used methadone during detoxification had lower induction rates. The association therefore may have been due to other site level variables. Prospective trials are needed to determine if methadone use in detoxification is associated with induction failure.

Willing to present orally: Yes

Financial Support: Disclosures/ Conflict of Interest: None Grant Funding: The study in this presentation was funded by the NIDA grant U10 DA013035 (PI: Nunes). Dr Shulman was funded by the NIDA grant T32 DA007294.

Name of Sponsor (If you are NOT) a CPDD Member: Edward V. Nunes

Email Address of Sponsor : Edward.Nunes@nyspi.columbia.edu

Prefix: Dr.

First Name: Matisyau

Last Name: Shulman

Degrees: MA MD Ph.D etc:: MD

Email: shulman@nyspi.columbia.edu

CC Email: shulmamy@gmail.com

Company Affiliation: Columbia University and NYSPI

Mailing Address: 1051 Riverside Dr

City: New York

State: NY

Zip/Postal: 10032

Country: United States

Phone: 6467746315

Fax: 6467746111

ID: 318
Direct dispensing laws: Status, trends and evidence

Caitlin Davie, Legal Science, LLC, caitlin.davie@legalscience.com

---

Abstract Category: Program Descriptions

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Policy

Abstract: Aim: Legal Science created the Prescription Drug Abuse Policy System (PDAPS), a public resource funded by NIDA (#HHSN271201500081C) to assist researchers in examining specific features of state prescription drug abuse laws. PDAPS is a crucial resource for researchers looking to evaluate laws impacting drug dependence. Scientifically valid legal data is the starting point in evaluating the health impact of laws and their implementation. Methods: PDAPS is the most complete and systematic monitor of developments in state prescription drug abuse laws and is home to more than 15 longitudinal legal datasets including Direct Dispensing Laws. Legal data on state direct dispensing laws, created using the scientific policy surveillance process, can be viewed and downloaded by researchers on the PDAPS site or can be integrated into custom projects using our API. Results: We will discuss the current status and trends of state direct dispensing of controlled substances laws. More specifically, we will focus on the direct dispensing of controlled substances by physicians, physician assistants, and nurse practitioners. Direct dispensing occurs when a practitioner provides a controlled substance, including opioids, to a patient in an office setting rather than issuing a prescription to then be filled at a pharmacy. Conclusion: Direct dispensing provides both benefits and disadvantages to patients. Direct dispensing may make it easier for patients, especially those in rural locations, to receive medication and actually take the medication as prescribed. Direct dispensing is not without risk, however. Direct dispensing allows the practitioner to bypass the pharmacy which may increase the chances of dangerous drug interactions (such as interactions with benzodiazepines), allergies, and prescribing errors that may not be caught by the dispensing practitioner. Additionally, direct dispensing creates opportunities for problematic financial incentives for practitioners because they now have a financial stake in the sale of controlled substances like opioids.

Willing to present orally: Yes

Financial Support: Funded by NIDA (#HHSN271201500081C)

Name of Sponsor (If you are NOT) a CPDD Member: Gerald (Jerry) Stahler

Email Address of Sponsor : jerrystahler@temple.edu

Prefix: Ms.

First Name: Caitlin

Last Name: Davie

Degrees: MA MD Ph.D etc:: J.D.

Email: caitlin.davie@legalscience.com

Company Affiliation: Legal Science, LLC

Mailing Address: 1601 Market Street, Fl. 19

City: Philadelphia

State: PA

Zip/Postal: 19103

Country: United States

Phone: 6077599016

Biography: Caitlin is a Legal Research Associate at Legal Science, where she provides legal research services, including the creation and maintenance of legal datasets. While in law school Caitlin interned several times for the NYS Department of Environmental Conservation and represented the Department in administrative hearings. Caitlin received her law degree from Albany Law School and a B.S. in Natural Resources Management from SUNY College of Environmental Science and Forestry.

ID: 319
Cocaine and benzodiazepine polysubstance use among illicit opioid users in New York City

Jeanne Manubay, Columbia University , Jeanne.Manubay@nyspi.columbia.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Epidemiology

Abstract: Aims: In 2016, overdose death rates from opioids in combination with benzodiazepines and cocaine rose dramatically on the national level. We examined baseline urine toxicology results among illicit opioid users in New York City who came to our facility to obtain naloxone kits to determine whether our data were consistent with this trend. Methods: The data presented are part of a larger clinical trial that seeks to understand the risks and benefits of opioid overdose education and naloxone distribution to opioid users. Between May 2015 and September 2018, we evaluated participants' urine drug test results (amphetamine, barbiturate, benzodiazepine, buprenorphine, cocaine, methamphetamine, methadone, opiates, oxycodone, PCP, THC), along with an individual test for fentanyl (N=380). Results: Overall, 36.5% (n=139) of the participants provided positive urine samples from a combination of opioids, benzodiazepines, and/or cocaine. Of the 139 participants, 20.2% tested positive for opioids and cocaine, 9.7% tested positive for opioids and benzodiazepines, and 6.6% tested positive for all 3 drugs. Additionally, the analysis revealed that 55 men (18.6% of the men) and 22 women (23.9% of the women) tested positive for opioids and cocaine, however this difference did not reach statistical significance. Conclusion: Our results indicate that cocaine and benzodiazepine polysubstance use is prevalent in our opioid-using population. Given the escalating overdose death rates due to use of opioids in combination with benzodiazepines and cocaine, we must educate and warn opioid users of these risks to help combat the opioid epidemic.

Willing to present orally: No

Financial Support: Grant RO1DA16759 to Dr. Sandra Comer

Name of Sponsor (If you are NOT) a CPDD Member: Sandra Comer

Email Address of Sponsor : Sandra.Comer@nyspi.columbia.edu

Prefix: Dr.

First Name: Jeanne

Last Name: Manubay

Degrees: MA MD Ph.D etc:: MD

Email: Jeanne.Manubay@nyspi.columbia.edu

Company Affiliation: Columbia University

Mailing Address: 1051 Riverside Drive

Address 2: Unit 120

City: New York

State: NY

Zip/Postal: 10032

Country: United States

Phone: 646-774-8016

ID: 320
Using Nominal Group Technique to inform strategic planning for integration of specialty and primary care among high level administrators in Ukraine

Iryna Pykalo, Ukrainian Institute on Public Health Policy, pykalo@uiphp.org.ua

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Background: In Ukraine injecting drug use now accounts for more than half of all HIV transmission cases. The international medical community currently views OAT as the most effective means of treating opioid related disorders, which not only serves to fully re-integrate patients with OUD into society but is also a core prevention strategy for infectious diseases (e.g., HIV infection, viral hepatitis, TB, etc.) among the general population. Aim: During a national meeting titled "Problems of Public Health and the HIV Epidemic in Ukraine", held on the eve of World AIDS Day, leading professionals representing state agencies, public health organizations, and civil society associations working in the field of public health and disease prevention, met with heads of city and regional departments of health to discuss these urgent topics, specifically related to fighting HIV in Ukraine. Methods: During this unique meeting, Nominal Group Technique (NGT) was used to elicit and prioritize the barriers to integrating primary care with specialty care, a strategy that is seen as critical to addressing the joined epidemics. Participants were 29 heads and deputies of city and regional departments. Round robin solicitation of ideas regarding barriers to integration were collapsed to six subthemes that attendees rank ordered. Results: Administrators identified three main problems that were similar across all regions of Ukraine: 1) complicated regulatory and legal frameworks; 2) insufficient financing of the health care system; 3) lack of personnel. Conclusion: This meeting was the first time that high level administrators had been convened to discuss the nationwide issues of HIV prevention, addiction, and OAT expansion. The NGT technique is applicable on all levels of decision-making and was well perceived by meeting participants. They acknowledged this process as a valid tool for identifying issues for further decision-making and developing strategies for improving OAT access and HIV prevention throughout Ukraine.

Willing to present orally: Yes

Financial Support: Supported by: National Institute on Drug Abuse (R01DA043125)

Prefix: Ms.

First Name: Iryna

Last Name: Pykalo

Degrees: MA MD Ph.D etc:: MPH

Email: pykalo@uiphp.org.ua

Company Affiliation: Ukrainian Institute on Public Health Policy

Mailing Address: 4,Malopidvalna street, office 6

City: Kyiv

State: Ukraine

Zip/Postal: 04001

Country: Ukraine

Phone: +380633917245

ID: 321
Effect of publicly reported cardiac surgery outcomes on rate of valve replacement in injection drug-associated and non-injection drug-associated endocarditis

Simeon Kimmel, Boston University School of Medicine, simeon.kimmel@bmc.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: AIM Injection drug use associated infective endocarditis (IDU-IE) is rising and valve replacement is frequently indicated. In 2013, the Society of Thoracic Surgery began publicly reporting aortic valve procedure outcomes. The effect of public reporting on rates of valve replacement and in-hospital mortality for IE are not known. METHODS For an interrupted time series analysis, we used data from the National Inpatient Sample, a representative sample of United States inpatient discharges, from January 2010 to September 2015. We included individuals aged 18-65 with an ICD9 diagnosis of endocarditis. We defined IDU-IE discharges using a previously validated combination of ICD9 codes. Outcomes were valve replacement identified by ICD-9 procedure codes and death at discharge. We used adjusted segmented logistic regression, including terms for change in level and trend after January 2013 (public reporting initiation), as well as, patient and hospital level covariates. RESULTS We identified 48,746 IDU and 153,325 non-IDU IE admissions during the study. From 2010-2012, the odds of receiving surgery increased for non-IDU by 2.8% per quarter (OR 1.03, CI 1.01-1.05). Relative to non-IDU IE, the odds of receiving surgery decreased by 1.3% for IDU-IE (OR 0.99, CI 0.98-0.99). Following public implementation of public reporting in 2013, the odds of surgery decreased 3.4% per quarter (OR 0.97, CI 0.94-0.99) for both IDU and non-IDU IE, relative to baseline trends. Odds of in-hospital death for all IE decreased 14.4% in the first quarter following reporting (OR 0.87, CI 0.79-0.96) with no change in underlying trend. CONCLUSION The introduction of public reporting of cardiac valve surgery in 2013 was associated with a significant decrease in valve replacement and in-hospital mortality for patients with IDU and non-IDU IE. Patients with IE appear to have less access to surgery as an unintended consequence of public reporting. To understand how reduced valve surgery impacts overall mortality, future studies should examine post-discharge mortality.

Willing to present orally: Yes

Financial Support: Support from ASAM 2017 Fellowship Award, Fellow Immersion training Program in Addiction Medicine (R25DA013582), Research in Addiction Medicine Scholars Program (R25DA033211), Boston University Clinical HIV/AIDS Research Training (5T32AI052074).

Name of Sponsor (If you are NOT) a CPDD Member: Alexander Walley (I am Member in training)

Email Address of Sponsor : alexander.walley@bmc.org

Prefix: Dr.

First Name: Simeon

Last Name: Kimmel

Degrees: MA MD Ph.D etc:: MD, MA

Email: simeon.kimmel@bmc.org

CC Email: simeon.kimmel@bmc.org

Company Affiliation: Boston University School of Medicine

Mailing Address: 1 Eliot Place

City: Boston

State: MA

Zip/Postal: 02130

Country: United States

Phone: 8602356833

Membership Year: 2018

Sponsor: Dr. Jeffrey Samet, MD

Research Interests: Health Services,Psychiatric/Medical Morbidity

ID: 322
Patterns of cocaine use and posttreatment psychosocial functioning across seven randomized clinical trials

Corey Roos, Yale University School of Medicine, corey.roos@yale.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Treatment

Abstract: Patterns of cocaine use and posttreatment psychosocial functioning across seven randomized clinical trials Corey R. Roos, Charla Nich, Chung Jung Mun, Justin Mendonca, Theresa A. Babuscio, Katie Witkiewitz, Kathleen M. Carroll, Brian D. Kiluk AIMS: There is a lack of evidence about patterns of continued cocaine use during treatment and how these patterns relate to subsequent psychosocial functioning following treatment. This study aimed to identify distinct patterns of cocaine use and their association with posttreatment psychosocial functioning at 6-months among 720 treatment-seeking adults with cocaine dependence from a pooled dataset of seven randomized clinical trials. METHOD: Calendar-based interview methods were used to measure daily cocaine use during the entire study period. The Addiction Severity Index was used to assess psychosocial functioning. Repeated-measures latent class analysis (RMLCA) was used to identify patterns of cocaine use from week 1 through 8 of active treatment. RESULTS: Three patterns of cocaine use were identified: abstinence (10.6% of the sample), low frequency use (approximately one day of cocaine use per week; 66.3% of the sample), and persistent frequent use (approximately four days per week; 23.1% of the sample). The abstinent group and low frequency use group did not significantly differ on follow-up psychosocial functioning. Both the abstinent group (M=12.94) and the low frequency use group (M =14.22) had significantly fewer psychosocial problems at follow-up than the persistent frequent use group (M=20.78). Findings persisted when conducting sensitivity analyses incorporating urine toxicology data with self-reported cocaine use. CONCLUSION: Findings suggest that an average of one day of cocaine use per week through the first 2 months of treatment may represent a clinically meaningful pattern of “low frequency use,” and that individuals who achieve this pattern may exhibit similar long-term psychosocial functioning as those individuals who are completely abstinent.

Willing to present orally: Yes

Financial Support: NIDA R33 DA041661

Name of Sponsor (If you are NOT) a CPDD Member: Brian Kiluk

Email Address of Sponsor : brian.kiluk@yale.edu

Prefix: Dr.

First Name: Corey

Middle Initial: R

Last Name: Roos

Degrees: MA MD Ph.D etc:: Ph.D.

Email: corey.roos@yale.edu

Company Affiliation: Yale University School of Medicine

Mailing Address: 40 Temple Street, Ste Suite 6C

City: New Haven

State: CT

Zip/Postal: 06510

Country: United States

Phone: 203-623-5882

ID: 323
Community methadone treatment entry among detainees initiating interim methadone treatment in jail: Impact of patient navigation

Sharon Kelly, Friends Research Institute, skelly@friendsresearch.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim: To examine the impact of patient navigation on entry into community methadone maintenance treatment (MMT) when added to MMT initiated in jail. Methods: Newly-arrested individuals (N = 225) receiving opioid detoxification were recruited in the Baltimore City Detention Center and randomly assigned to: Interim Methadone (IM; methadone treatment without counseling with an assigned community MMT program upon release); IM with Patient Navigation (IM+PN; IM plus assistance by a dedicated staff person to facilitate community MMT entry); or Enhanced-Treatment-as-Usual (ETAU; brief methadone detoxification with drug education/overdose prevention and referral to treatment in the community). To test the impact of PN when added to MMT, chi-square tests of independence were used to compare the IM group to the IM+PN group on the rates of receiving their first methadone dose in the community within 30 days of release from jail. Results: There were 149 participants assigned to IM in jail (N = 74 IM and N = 75 IM+PN). The study sample was 81% male, and 64% were African American, with a mean (SD) age of 38.5 (10.0). Twenty participants were tapered off methadone in jail prior to transfer to prison after sentencing, 3 requested a dose taper, and 3 were tapered for other reasons. Thus, 123 (63 IM and 60 IM+PN) were released directly into the community from jail while still receiving methadone treatment. Among participants released from jail while receiving methadone, 34 of 63 (54%) IM and 53 of 60 (88%) IM+PN participants entered MMT in the community (p

Willing to present orally: Yes

Financial Support: NIDA: U01 DA013636 Laura and John Arnold Foundation: 13B971

Name of Sponsor (If you are NOT) a CPDD Member: Robert P. Schwartz

Email Address of Sponsor : rschwartz@friendsresearch.org

Prefix: Dr.

First Name: Sharon

Middle Initial: M

Last Name: Kelly

Degrees: MA MD Ph.D etc:: PhD

Email: skelly@friendsresearch.org

Company Affiliation: Friends Research Institute

Mailing Address: 1040 Park Avenue

Address 2: Suite 103

City: Baltimore

State: MD

Zip/Postal: 21201

Country: United States

Phone: 410-837-3977 x273

Fax: 410-752-4218

ID: 324
Nalfurafine blocks oxycodone's conditioned rewarding effects and acquisition of oxycodone self-administration in male rats

Carlos Zamarripa, University of Mississippi Medical Center, czamarippa@umc.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Behavior

Abstract: Aim: Prescription opioids are highly efficacious for the treatment of pain but have significant abuse liability. Recently, we reported that nalfurafine reduced the reinforcing effects of oxycodone in a self-administration study without affecting oxycodone's antinociceptive effects. However, it is unknown if the attenuation of oxycodone self-administration was due to amelioration of the rewarding effects of oxycodone or an aversive effect of the combination. Here, we hypothesized that oxycodone, but not nalfurafine or a combination of oxycodone/nalfurafine, would produce conditioned rewarding effects in rats using a conditioned place preference (CPP) design. In addition, we hypothesized that the acquisition rates in rats self-administering the combination of oxycodone/nalfurafine or saline would be reduced compared to oxycodone alone. Methods: For CPP, male Sprague-Dawley (SD) rats (n=12 per group) received subcutaneous injections of either saline, oxycodone (3.0 mg/kg), nalfurafine (0.17 mg/kg), or an oxycodone/nalfurafine combination (3.0 mg/kg/0.17 mg/kg). Time spent in drug-paired chambers was averaged and compared to time spent in the saline paired chamber (t-test). For self-administration, male SD rats (n=6 per group) self-administered intravenous infusions of oxycodone (0.056 mg/kg/inf), oxycodone/nalfurafine (0.056 mg/kg/inf; 0.0032 mg/kg/inf), or saline under FR1 then FR5 schedules of reinforcement for 20 days. Drug groups were compared on rates of acquisition for self-administration. Results: For CPP, oxycodone produced rewarding effects ($p < 0.01$) in rats, while nalfurafine ($p = 0.07$) and the combination of oxycodone/nalfurafine ($p = 0.36$) did not produce place preferences or aversions. For self-administration, all oxycodone (100%) rats met the criteria for acquisition, while oxycodone/nalfurafine (16%) and saline (0%) rats displayed reduced rates of acquisition. Conclusion: These findings indicate that nalfurafine attenuates the rewarding effects of oxycodone and reduces acquisition of oxycodone self-administration, suggesting that the combination of oxycodone and nalfurafine will be less habit forming than oxycodone alone.

Willing to present orally: Yes

Financial Support: DA039167

Name of Sponsor (If you are NOT) a CPDD Member: Kevin Freeman

Email Address of Sponsor : kfreeman@umc.edu

Prefix: Mr.

First Name: Carlos

Middle Initial: Austin

Last Name: Zamarripa

Email: czamarippa@umc.edu

CC Email: austinz13@gmail.com

Company Affiliation: University of Mississippi Medical Center

Mailing Address: 140 Pinehaven Dr.

City: Jackson

State: MS

Zip/Postal: 39202

Country: United States

Phone: 2282381516

Travel Award: Primm Single. 2018

ID: 325
Increasing identification and providing evidence-based treatment of opioid use disorder in VA primary care: The Supporting Primary care Providers in Opioid Risk reduction and Treatment (SUPPORT) Center

Emily Williams, Veterans Affairs Puget Sound Health Services Research & Development, Emily.Williams3@va.gov

---

Abstract Category: Program Descriptions

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Background: Dramatic growth in opioid prescribing to treat chronic pain has been accompanied by commensurate increases in opioid use disorders (OUDs) and other adverse opioid-related outcomes. We developed and obtained funding to launch the SUpporting Primary care Providers in Opioid Risk reduction and Treatment (SUPPORT) Center, a Veterans Health Administration (VA)-funded quality improvement and safety Center to identify and treat OUD in VA primary care. Description: The SUPPORT Center reflects an adaptation of the Massachusetts Nurse Care Manager model and funds a full-time nurse practitioner prescriber and social worker with addiction specialty care expertise. The Center will support primary care providers in identification of patients at high risk for adverse opioid-related outcomes and assessment and diagnosis of OUD; pharmacotherapy (buprenorphine) induction, stabilization, monitoring, and tracking; facilitating transfer of patients to more intensive OUD treatments as needed; and additional consultations. Progress: Pre-implementation work has included engaging key stakeholders, educating primary care providers on best OUD treatment practices, delivering a buprenorphine waiver training to 11 providers and surveying them about their needs and interest in SUPPORT Center services, identifying patients at risk for adverse opioid-related outcomes and OUD using data from the electronic health record (EHR), and developing EHR note templates to support care provision. Notable pre-implementation facilitators include building buy-in from clinical leaders and champions, having full-time clinical staff who can partner with providers to work directly with patients rather than only offering consultation, and having an addictions expert deliver the waiver training. Participating providers expressed enthusiasm and openness to all Center services being offered. Next Steps: We will implement the program and conduct a mixed-methods evaluation with data from qualitative interviews with patients and providers, ongoing notes from implementation team meetings, and performance reports. We will evaluate the impact of the Center on OUD treatment delivery and clinical outcomes using interrupted time-series analysis.

Willing to present orally: Yes

Financial Support: This work is supported by the Department of Veterans Affairs National Center for Patient Safety (NCPS) Patient Safety Centers of Inquiry.

Name of Sponsor (If you are NOT) a CPDD Member: Andrew Saxon

Email Address of Sponsor : Andrew.Saxon@va.gov

Prefix: Dr.

First Name: Emily

Middle Initial: C

Last Name: Williams

Degrees: MA MD Ph.D etc:: PhD, MPH

Email: Emily.Williams3@va.gov

CC Email: Madeline.Frost@va.gov

Company Affiliation: Veterans Affairs Puget Sound Health Services Research & Development

Mailing Address: 1660 S Columbian Way

Address 2: S-152

City: Seattle

State: WA

Zip/Postal: 98108

Country: United States

Phone: 206-277-6133

ID: 326
Post-traumatic stress disorder and risk of prescription pain reliever misuse among World Trade Center Health Registry enrollees, 2015-2016

Erin Takemoto, New York City Department of Health and Mental Hygiene, etakemoto@health.nyc.gov

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: AIM Among veterans, post-traumatic stress disorder (PTSD) has been shown to be associated with the misuse of prescription pain relievers. Less is known about PTSD among the general population and PTSD resulting from non-combat related trauma. We sought to test the hypothesis that PTSD following exposure to the World Trade Center (WTC) disaster is associated with an increased risk of the misuse of prescription pain relievers. METHODS This study examined 26,574 individuals from the World Trade Center Health Registry, a longitudinal cohort of rescue and recovery workers and lower Manhattan community members exposed to the WTC terrorist attacks on September 11, 2001 (9/11). PTSD symptoms were assessed on multiple surveys over time (2003-2016) using the PTSD Checklist-17 and prescription pain reliever use was self-reported on a survey in 2015-2016. To reflect a longitudinal history of post 9/11 PTSD, three PTSD categories were derived: never (N=21,282), past (N=2,922), and current (N=2,370). Pain reliever misuse (yes/no) was defined as taking a prescription pain reliever in the last 12 months that was not prescribed to you. The association between PTSD and misuse was estimated using log-binomial regression; adjusted relative risks (aRR) and 95% confidence intervals (CI) were computed comparing individuals with past and current PTSD to never PTSD. RESULTS Pain reliever misuse was most common among those with current PTSD (12.2%), compared to past (6.7%), and never PTSD (3.6%). In adjusted models, individuals with past and current PTSD had a greater risk of pain reliever misuse than those who never experienced PTSD [aRR (95% CI): 1.74 (1.48, 2.02); 3.04 (2.65, 3.49), respectively]. CONCLUSION In a trauma-exposed, civilian, and sociodemographically diverse population, past and current 9/11-related PTSD was strongly associated with recent misuse of prescription pain relievers. Identifying risk factors for pain reliever misuse and related disorders may assist clinical audiences in improving screening and surveillance measures.

Willing to present orally: Yes

Financial Support: This publication was supported by Cooperative Agreement Numbers 2U50/OH009739 and 5U50/OH009739 from the National Institute for Occupational Safety and Health (NIOSH) of the Centers for Disease Control and Prevention (CDC); U50/ATU272750 from the Agency for Toxic Substances and Disease Registry (ATSDR), CDC, which included support from the National Center for Environmental Health, CDC; and by the New York City Department of Health and Mental Hygiene (NYC DOHMH).

Prefix: Dr.

First Name: Erin

Last Name: Takemoto

Degrees: MA MD Ph.D etc:: PhD MPH

Email: etakemoto@health.nyc.gov

Company Affiliation: New York City Department of Health and Mental Hygiene

Mailing Address: 125 Worth St

City: New York

State: NY

Zip/Postal: 10013

Country: United States

Phone: 646-6326207

ID: 327
Neural correlates of decreased persistence behavior in treatment-seeking prescription opioid dependent individuals

Suchismita Ray, Rutgers Biomedical and Health Sciences, shmita@shp.rutgers.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Imaging

Abstract: Aim: A key factor in problematic drug use is maladaptive behavior in response to negative affective events. Upsetting events can cause individuals to abandon non-drug-related as well as drug abstinence goals and increase drug use. For example, a reprimand at work may prompt abandonment of work-related goals and increased drug use. The ability to respond to negative affective events by persisting with a goal can protect against problematic drug use by keeping individuals engaged with adaptive non-drug-related or abstinence goals. Persistence through negative affect is linked to neural circuitry in ventromedial prefrontal cortex (vmPFC) and striatum that underlies flexible changes in negative affective experiences (Bhanji, 2014), but this neural circuitry for persistence is unexamined in problematic prescription opioid (PO) users. We hypothesized that nonmedical PO dependent individuals show decreased persistence behavior underpinned by altered vmPFC and striatal responses to negative affective events. Methods: 14 adult treatment-seeking PO dependent individuals (8M;6F) and 10 adult healthy controls (5M;5F) underwent functional Magnetic Resonance Imaging of blood oxygen level dependent responses to negative affective events during pursuit of goals in a Persistence Decision task. Results: PO dependent individuals persisted less than control participants. Consistent with prior research, vmPFC responses in the control group decreased below baseline for negative affective events that resulted from a correctable action (i.e., controllable setbacks). PO dependent individuals' vmPFC responses to controllable setbacks differed from control participants, exhibiting less change from baseline levels. Conclusion: PO dependent individuals were less persistent in a task where the adaptive response to negative events is to persist. A diminished vmPFC response to negative affective events in PO dependent individuals may underlie this behavioral pattern, and suggests an impaired ability for PO dependent individuals to adaptively cope with negative affect and remain engaged with non-drug related goals. This research was supported by NIDA grant R03DA044496.

Willing to present orally: Yes

Financial Support: NIDA grant R03DA044496

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Margaret Haney

Email Address of Sponsor : mh235@cumc.columbia.edu

Prefix: Dr.

First Name: Suchismita

Last Name: Ray

Email: shmita@shp.rutgers.edu

Company Affiliation: Rutgers Biomedical and Health Sciences

Mailing Address: 65 Bergen Street

City: Newark

State: NJ

Zip/Postal: 07107

Country: United States

Phone: 732-266-4553

ID: 328
Opioid addiction beliefs and attitudes of primary health care clinicians in Ukraine

Myroslava Filippovych, Ukrainian Institute on Public Health Policy, filippovych@uiphp.org.ua

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Background: Ukraine's rising HIV epidemic is fueled primarily by people who inject drugs (PWID). Opioid agonist therapy (OAT) is recognized as an evidence-based and cost-effective HIV prevention and treatment strategy. In Ukraine, however, OAT is typically provided only in specialty clinics and coverage has remained under 4%. Aim: To scale up treatment, a cluster randomized control trial was initiated in February 2018 to introduce OAT at PHC clinics country-wide. PHC clinician beliefs and attitudes towards PWID and addiction treatment may affect overall OAT program effectiveness and sustainability. Initial data is reported here from clinicians who practice at 14 participating PHC clinics. Methods: Baseline survey data was collected from 293 clinicians at 14 participating clinics in 7 regions of Ukraine, from February through November 2018. Twenty-six percent were trained to begin providing OST and 74% would not directly provide OAT. Survey data included a feelings thermometer and standardized instruments with adapted items related to discrimination, prejudice, internal shame, fear, stereotypes towards PWID, beliefs about addiction treatment, and resistance to program change. Results: Analyses showed significant differences between regions on all instruments ($p < 0$ .01 for all). There were almost no significant differences in scores between sites within a single region, demonstrating a geographic cluster effect. Among the seven regions, participants from two regions tended to have lower average scores, indicating less negative beliefs towards PWID and more positive views of addiction treatment, while participants from one region tended to have higher average scores. Conclusion: Expansion of OAT to PHC clinics can expand access to and increase coverage of OAT across Ukraine. Differing staff beliefs and attitudes towards PWID and addiction treatment may influence program implementation uptake and patient outcomes at the clinic level, with clinics demonstrating more positive beliefs having greater effectiveness. Additional analyses will be needed to characterize the longitudinal effect of these regional differences.

Willing to present orally: Yes

Financial Support: Supported by: National Institute on Drug Abuse (R01DA043125)

Prefix: Ms.

First Name: Myroslava

Last Name: Filippovych

Degrees: MA MD Ph.D etc:: MPH

Email: filippovych@uiphp.org.ua

Company Affiliation: Ukrainian Institute on Public Health Policy

Mailing Address: 5 Mala Zhytomyrska Street, of.61A

City: Kiev

State: Ukraine

Zip/Postal: 01001

Country: Ukraine

Phone: +380507449492

ID: 329
Nonmedical prescription opioids use, heroin use, and cardiovascular disease

Luis Segura, Columbia University, les2196@cumc.columbia.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: Aims: To estimate the association between cardiovascular disease with nonmedical use of prescription opioids (NMUPO) and heroin use among U.S. adults aged 18 and older. Methods: Pooled 2005–2014 National Survey on Drug Use and Health data were used (n=557,742 individuals ≥18). Our outcome was self-reported past-year cardiovascular disease (stroke and/or heart disease in the past year.) We fitted three weighted prevalence ratio regressions comparing effects of: past-year NMUPO vs non-users, past-year prescription opioid use frequency categories ("100–365 days", "30–99 days", and "1-29 days") vs non-users, and past-year use of prescription opioid only, heroin only, and both vs non-users. Models were adjusted by demographics (age, sex, race, year, poverty level, and insurance status) and cardiovascular disease risk factors (past-month cigarettes per day, heavy drinking, self-reported diabetes, and high blood pressure). Results: The prevalence of cardiovascular disease among individuals ≥18 years was 4.57% (95%CI: 4.41, 4.72). After adjusting for demographics and cardiovascular risk factors, the prevalence of cardiovascular disease among past-year NMUPO was 25% less than non-users (Prevalence Ratio=0.75 [0.62, 0.92]). Compared to non-users, frequent NMUPO users ("100-365" days) had lower cardiovascular disease prevalence (PR=0.66 [0.52, 0.84]). Nonmedical users of prescription opioids only, heroin only, and users of both had lower cardiovascular disease prevalence than non-users (PR=0.76 [0.62, 0.92], PR=0.51 [0.18, 1.46], and PR=0.83 [0.33, 2.05], respectively). Conclusions: Previous evidence supports divergent protective and harmful effects of opioids on cardiovascular disease. Our results are supported by previous research indicating potential cardioprotective effects of opioid medications, suggesting possible unintended consequences of the opioid epidemic. Additional work exploring potential unmeasured confounding or measurement error, particularly of the outcome, is warranted.

Willing to present orally: Yes

Financial Support: Funding: R01DA037866 (Martins), T32 (Hasin)

Prefix: Dr.

First Name: Luis

Last Name: Segura

Degrees: MA MD Ph.D etc:: MD, MPH

Email: les2196@cumc.columbia.edu

Company Affiliation: Columbia University

Mailing Address: 25 St. Nicholas Terrace Apt 54

City: New York

State: NY

Zip/Postal: 10027

Country: United States

Phone: 6467148399

Membership Year: 2018

Sponsor: Dr. Silva Martins, PhD

Travel Award: Won Women and Gender 2018

Research Interests: Epidemiology,Policy

ID: 330
Cigarette, alcohol, and cannabis use and co-use among sexual minority and non-minority young adult smokers: A daily diary study

Johannes Thrul, Johns Hopkins Bloomberg School of Public Health, jthrul@jhu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Behavior

Abstract: Aim: Sexual minority (SM) young adults have higher substance use rates than their non-minority peers, but less is known about rates and patterns of substance co-use. Using detailed daily diary assessments, we investigated cigarette, alcohol, and cannabis use and co-use among young adult smokers, and associations between co-use and mood. Methods: We used smartphones to collect self-reports from 139 diverse young adult smokers in the San Francisco Bay Area (age M=22.7, 50% male, 41% Non-Hispanic White, 44% SM). Participants completed 30 daily assessments, including detailed questions about co-use (66% compliance). Analyses used descriptive statistics and multilevel models accounting for clustered data and controlling for age, gender, race/ethnicity, and education. Results: Cigarette use was reported on 83% of 2,768 assessments (SM: 84%; non-SM: 83%; p=ns), alcohol use on 36% (SM: 42%; non-SM: 31%; p

Willing to present orally: Yes

Financial Support: National Cancer Institute CA-U01-154240 California Tobacco-Related Disease Research Program 25FT-0009

Prefix: Dr.

First Name: Johannes

Last Name: Thrul

Degrees: MA MD Ph.D etc:: Ph.D.

Email: jthrul@jhu.edu

Company Affiliation: Johns Hopkins Bloomberg School of Public Health

Mailing Address: 624 N Broadway

City: Baltimore

State: MD

Zip/Postal: 21205

Country: United States

Phone: 5106467860

Membership Year: 2015

Sponsor: Dr. Danielle Ramo, Ph.D. and Dr. Jim Sorsensen

Travel Award: 2017

Research Interests: Prevention

Date of Membership: upgrade from MIT to Regular 1.1.19

ID: 331
Trends in smoking during pregnancy over time and by race/ethnicity in the Florida, 2012 to 2016 birth cohorts

Mildred Maldonado-Molina, University of Florida, mmmm@ufl.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Other

Other Topic: Smoking during pregnancy.

Abstract: Aim: Smoking during pregnancy (SDP) is a known risk factor for adverse outcomes for infants following birth (e.g., premature births, low birth weight, etc.). This study aims to examine the population trends of SDP in Florida to understand the patterns and trajectory of SDP on the population level. Methods: Linked maternal-infant data using the following methodology: (1) the development of self- correcting, patient-level custom linkage profiles across databases; (2) a deterministic (rule-based) record linkage using exact and fuzzy text matching techniques; (3) a probabilistic linkage using data mining algorithms; and (4) a clerical-review record linkage. Extracting data from over 1 million births, we examined the overall statewide trends of SDP from 2012-2016 birth cohorts and by three race/ethnicity groups—Hispanic, African American and Caucasian. Results: From 2012-2016 SDP steadily decreased in the state of Florida, 6.6% to 5.3% respectively. In 2016, the percent of pregnant women eligible for Medicaid who self-reported smoking during pregnancy remains more than four times higher than that of Non-Medicaid women (7.9% vs. 1.5%). Caucasian women consistently report higher rates of SDP compared to African American and Hispanic. In addition, nearly 2 out of 10 Caucasian women eligible for Medicaid reported smoking during pregnancy (17.3% compared to 2.0% of Caucasian women not eligible in Medicaid). Among women who reported smoking during pregnancy, the mean infant birth hospitalization charges ($19,600) and length of stay (5 days) was higher for deliveries to Medicaid eligible women when compared with non-Medicaid women ($16,400; 4 days, respectively). Conclusions: Understanding trends and the geographic variations of the trends is a significant step in continuing to decrease SDP. Understanding the geographic variation in outcomes at a local level helps 1) inform etiologic research on modifiable risk factors, 2) identify targets (i.e. “hot spots”) for interventions and 3) inform communities about local patterns.

Willing to present orally: Yes

Financial Support: This research is supported by the Florida Agency for Health Care Administration.

Name of Sponsor (If you are NOT) a CPDD Member: Mildred Maldonado-Molina

Email Address of Sponsor : mmmm@ufl.edu

Prefix: Dr.

First Name: Mildred

Middle Initial: M.

Last Name: Maldonado-Molina

Degrees: MA MD Ph.D etc:: Ph.D.

Email: mmmm@ufl.edu

CC Email: mmmm@ufl.edu

Company Affiliation: University of Florida

Mailing Address: 2004 Mowry Road

City: Gainesville

State: FL

Zip/Postal: 32610

Country: United States

Phone: 3522948420

Fax: (352) 265-8047

Membership Year: 2011

Sponsor: Dr. Linda Cottler and Dr. Ty Ridenour

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 332
Relationships between psychosocial characteristics and co-occurring emotional problems among methadone patients

Jamey Lister, Wayne State University, jlister@med.wayne.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Other Topic: Co-Occurring Disorders

Abstract: AIM. Patients with opioid use disorder typically present to methadone maintenance treatment (MMT) with co-occurring emotional problems. Prior studies observed that patients who receive concurrent evidence-based mental health services experience better MMT outcomes, but access to such services is uncommon. Few studies have investigated the relationship between psychosocial characteristics and discrete emotional problems, resulting in unclear directions for intervention and assessment. Therefore, we examined psychosocial characteristics across individual, relational, and community levels, and hypothesized each level would differentiate clinically significant risk for emotional problems. METHODS. In this ongoing study, 99 patients (41.4% female; 72.7% African American; mean age=53.1 years) receiving MMT at an urban, university-affiliated clinic completed a survey consisting of several psychosocial measures as well as depression (DASS-21-D), stress (DASS-21-S), and childhood trauma (CTQ-SF). We used established cutoffs to determine clinically significant risk. Bivariate analyses (t-tests, x2) examined relationships between psychosocial characteristics and emotional problems. RESULTS. Most patients (80.8%) reported clinically significant emotional problem(s), with rates as follows: childhood trauma (63.6%), depression (62.6%), and stress (53.5%). Clinically significant stress was more common among younger patients (p

Willing to present orally: Yes

Financial Support: Wayne State University Office of the Provost, Helene Lycaki/Joe Young, Sr. Funds (State of Michigan), and Detroit Wayne Mental Health Authority.

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Mark Greenwald

Email Address of Sponsor : mgreen@med.wayne.edu

Prefix: Dr.

First Name: Jamey

Middle Initial: J.

Last Name: Lister

Degrees: MA MD Ph.D etc:: Ph.D

Email: jlister@med.wayne.edu

Company Affiliation: Wayne State University

Mailing Address: 5447 Woodward Ave

City: Detroit

State: MI

Zip/Postal: 48202

Country: United States

Phone: 313-577-4408

ID: 333
Implementing opioid agonist therapy scale-up for opioid use disorder in Ukraine

Lynn Madden, APT Foundation, Inc., lmadden@aptfoundation.org

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Background Opioid use disorder and HIV constitute an urgent public health crisis in Ukraine. An effective strategy to address this is scaling-up opioid agonist therapies (OAT), which reduces relapse, overdose, HIV transmission, and death. WHO recommends 20% coverage, but only 2.7% of opioid-dependent people who inject drugs (PWID) in Ukraine had been receiving OAT. Aim We describe the process and impact of implementing a nationwide learning collaborative focused on improving treatment access and retention using NIATx rapid cycle performance improvement methods. Methods NIATx is an implementation approach focused on improving access and retention, especially for addiction treatment. In NIATx phase 1, three Ukrainian persons involved in OAT medication procurement and policy-setting were trained as NIATx "coaches". Of the potential collaborative members/OAT sites (n=108) and leaders, 25 were invited to participate in an initial meeting (October 2014; n=23 attended) and several follow-up meetings. In 2016, informed by these meetings, Order 200 (OAT regulatory policy) was significantly revised, e.g. removing "detox" requirement, allowing take-home OAT and treatment in primary care. NIATx phase 2, currently underway, is a scale-up challenge among regions, led by regional administrators to increase OAT with diverse strategies. Results From 2012-2014 (pre-NIATx), after steadily rising since 2004, enrollment fluctuated between 8311-8614. In 2016 (after NIATx, initial Order 200 revision), number rose to 9214 enrollees, continued to rise to 10,189 in 2017; and 10,777 by November, 2018, with OAT coverage increasing from 2.7% to 3.4%. There remains significant regional variation (1.2% in Donetsk to 11.3% in Zhytomyr). Conclusion Using the NIATx model, OAT scale-up progressed both by process changes that improved retention and access to care and through advocacy with health official that resulted in regulatory changes. There remains regional variation and further need for scale-up. Phase 2 will identify specific change projects with highest impact.

Willing to present orally: Yes

Financial Support: Supported By: National Institute on Drug Abuse (R01 DA033679 and K24 DA017072)

Prefix: Ms.

First Name: Lynn

Last Name: Madden

Degrees: MA MD Ph.D etc:: PhD, MPA

Email: lmadden@aptfoundation.org

CC Email: dleedham@aptfoundation.org

Company Affiliation: APT Foundation, Inc.

Mailing Address: 1 Long Wharf Drive

Address 2: Suite 321

City: New Haven

State: CT

Zip/Postal: 06511

Country: United States

Phone: 203-781-4600

Fax: 203-781-4624

Sponsor: Corporate, Dr. Declan Barry and Jennifer Edelman

Research Interests: Policy,Treatment

Date of Membership: 11.16.18 approved

ID: 334
A mixed-methods analysis of prevalence and motivations of kratom use in a sample of chronic opioid users

Matthew Ellis, Washington University, ellism@wustl.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Background. Kratom is a plant-based drug with opioid-stimulant effects that has become a recent source of controversy between the Food and Drug Administration's desire to classify kratom as Schedule I, and the scientific community's desire to understand the little-studied kratom in lieu of anecdotal reports of its mitigation of opioid abuse. Objectives. To understand the prevalence, characteristics and motivations of kratom use in a sample of treatment-seeking opioid users. Methods. Individuals entering treatment for opioid use disorder from 17q2-18q1(N=2,232) were surveyed about their lifetime history of kratom use, along with sociodemographic variables. A subset (N=250) of these were surveyed in an online follow-up study for past year use of kratom and thematically coded open-ended descriptions of their motivations for kratom use. Results. Lifetime history of kratom use was reported by 16.8% of recent treatment-seeking opioid users. Kratom users were more likely than non-kratom users to be white (88.1% vs. 73.1%), under the age of 35 (71.9% vs. 53.8%), and have a history of psychiatric/psychological treatment (60.0% vs. 46.5%). Among follow-up participants, 19.6% (N=49/250) reported past year use of kratom, with self-treatment of opioid abuse (46.9%, N=23/49), mood regulation (28.6%, 14/49), and pain relief (22.4%, n=11/49) the most cited motivations for using kratom. Conclusions. A substantial proportion of treatment-seeking opioid users have experience with kratom, primarily to self-treat their opioid use (i.e., detox, prevent withdrawals, wean off opioids, or substitute hard to access medication assisted treatment). Further research should investigate the positive and negative outcomes of kratom on opioid use disorder.

Willing to present orally: Yes

Financial Support: This work was supported by the Researched Abuse, Diversion and Addiction-Related Surveillance (RADARS®) System, an independent nonprofit postmarketing surveillance system that is supported by subscription fees from pharmaceutical manufacturers, who use these data for pharmacovigilance activities and to meet regulatory obligations. Dr. Cicero serves as a paid consultant on the Scientific Advisory Board of the RADARS® System. None of the authors have a direct financial, commercial or other relationship with any of the subscribers of the RADARS® System.

Prefix: Mr.

First Name: Matthew

Middle Initial: S.

Last Name: Ellis

Degrees: MA MD Ph.D etc:: MPE

Email: ellism@wustl.edu

CC Email: acrowley@wustl.edu

Company Affiliation: Washington University

Mailing Address: Box 8134

Address 2: 660 S. Euclid Ave.

City: St. Louis

State: MO

Zip/Postal: 63110

Country: United States

Phone: 314-362-0900

Membership Year: 2017

Sponsor: Dr. Christine Grella, PhD

Research Interests: Epidemiology,Treatment

ID: 335
Substance use and HIV care outcome trends among substance users in Puerto Rico

Yue Pan, University of Miami Miller School of Medicine, panyue@med.miami.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Behavior

Other Topic: HIV

Abstract: AIM: In Puerto Rico, substance use plays a continuing role in HIV transmission. We examined the substance use and HIV care outcome trends over 12 months among people living with HIV (PLWH) with a history of substance use, collected as part of Proyecto PACTo, an ongoing cohort study in San Juan, Puerto Rico. METHODS: Participant assessments were at 6-month intervals. They included a blood draw to measure viral load and a social and behavioral assessment through a computer-assisted personal interview. We examined the trends and patterns of substance use and viral suppression. RESULTS: There were 409 participants. The proportion virally suppressed was 50%, 54% and 63% at baseline, 6 and 12 months, respectively (Chi-sq=11.8, p=0.003); mean log10 viral load was 2.7, 2.5, and 2.4 (Chi-sq=7.8, p=0.02). Illicit drug use was significantly lower at 12 months (51%), and 6 months (55%) compared to baseline (71%). When looking at patterns over time a different picture appears. Only 29%, 31%, and 33% reported abstinence at each time. Only 25% were virally suppressed at all times, 18% were virally unsuppressed at one time, 17% at 2 times, and 40% at all 3 times. There was a significant correlation between patterns of substance use over time and patterns of viral suppression (Chi-sq= 74.82, p CONCLUSION: Substance using PLWH decreased their substance use, and their HIV viral load concurrently declined during the first 12 months; however, those with consistent substance use were much more likely to have consistent viremia. Long-term interventions targeting substance use among PLWH might be key to lowering viral load in this population and help mitigate HIV transmission.

Willing to present orally: No

Financial Support: NIDA R01DA035280

Name of Sponsor (If you are NOT) a CPDD Member: Daniel J Feaster

Email Address of Sponsor : dfeaster@med.miami.edu

Prefix: Dr.

First Name: Yue

Last Name: Pan

Degrees: MA MD Ph.D etc:: Ph.D

Email: panyue@med.miami.edu

CC Email: panyue@med.miami.edu

Company Affiliation: University of Miami Miller School of Medicine

Mailing Address: CRB 1034

Address 2: 1120 NW 14st

City: Miami

State: FL

Zip/Postal: 33136

Country: United States

Phone: 3057938800

ID: 336
Understanding large cannabis firms: Qualitative study exploring for-profit and nonprofit perspectives

Navin Kumar, Yale University, navin.kumar@yale.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Dependence

Abstract: AIM Large for-profit firms supply a substantial fraction of cannabis products sold in state-legal stores. Some of them are active in trying to shape cannabis-related policies. There is a need to understand the motivations of large cannabis firms, to chart policy around the cannabis space. METHODS The data was collected through 320 hours of ethnographic observations at a large cannabis firm, and 34 semi-structured interviews with key decision makers in the US cannabis space, both for-profit and nonprofit organizations. Within the for-profit space, most (11 participants) were from cannabis private equity firms, followed by consulting firms (5). All (11) nonprofits were advocacy groups. RESULTS Key decision makers at large cannabis firms and nonprofits either characterized cannabis as a medicine or a means to mitigate social inequity. Motivations indicated by large cannabis firms for participating in the space seem opposed to the stated characterizations. Some large cannabis firms sought senior management in the cannabis space to have a greater proportion of purely profit-oriented versus socially conscious orientations. Firm engagement with socially conscious causes was generally motivated by self-interest. Some nonprofits were aware that large cannabis firms saw nonprofits as means to increase the size of the legal market, but continued to engage with firms, in exchange for funding. A few firms appeared to be driven by socially conscious motives. CONCLUSION There is a disconnect between firms' characterization of cannabis and key decision makers' private reports of motivations for being in the space.

Willing to present orally: Yes

Financial Support: NIL

Prefix: Mr.

First Name: Navin

Last Name: Kumar

Degrees: MA MD Ph.D etc:: MA

Email: navin.kumar@yale.edu

Company Affiliation: Yale University

Mailing Address: 210 Prospect St

City: New Haven

State: CT

Zip/Postal: 06511

Country: United States

Phone: 4754148375

ID: 337
The 5-HT2A receptor (5-HT2AR) antagonist/inverse agonist pimavanserin decreases oxycodone-evoked impulsive action in male Sprague-Dawley rats

Dennis Sholler, University of Texas Medical Branch, djsholle@utmb.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Behavior

Abstract: AIM: High levels of impulsivity predict treatment dropout in cocaine-dependent individuals while high impulsivity is evident during active opioid intake and abstinence. Serotonin 5-HT2A receptor (5-HT2AR) neurotransmission is engaged in the regulation of rapid response impulsivity (impulsive action; difficulty withholding a prepotent response), both inherent and cocaine-evoked. We found that stably identified high impulsive rats were more sensitive to the effects of a 5-HT2AR antagonist/inverse agonist to suppress impulsive action relative to low impulsive rats. However, engagement of the 5-HT2AR system in acute opioid-mediated impulsive action is unknown. Thus, we hypothesized that pretreatment with the 5-HT2AR antagonist/inverse agonist pimavanserin would attenuate impulsive action induced by the opioid analgesic oxycodone. METHODS: The 1-choice serial reaction time (1-CSRT) task was employed to monitor impulsive action in male, Sprague-Dawley rats. Oxycodone (0, 0.2, 0.5, 1.0, 2.0 mg/kg; s.c.; 30 min prior to task) on 1-CSRT task performance was assessed. The effects of pimavanserin (0.3 mg/kg; s.c.; 30 min pretreatment) were assessed to alter oxycodone-evoked (0.5 mg/kg) effects in the 1-CSRT task. Pharmacological evaluations were conducted using a within-subjects design. RESULTS: Oxycodone (0.5–1 mg/kg) dose-dependently increased premature responses and decreased reinforcers earned vs. vehicle ($p < 0.05$). Baseline levels of impulsive action predicted the efficacy of oxycodone to increase impulsive action ($p = 0.05$). Oxycodone (2 mg/kg) decreased premature responses, reinforcers earned, and the latency to first response and increased percent omissions. Pimavanserin attenuated oxycodone-elevated premature responses ($p < 0.05$), but not reinforcers earned (n.s.). CONCLUSION: This study extends previous work demonstrating that acute opioid administration dose-dependently disrupts impulsive responding with higher doses impacting the motivational factors that may underlie behavioral disinhibition. Further, these data suggest that pimavanserin alleviates specific aspects of enhanced levels of impulsive action induced by oxycodone, indicating a key role for the 5-HT2AR in governing impulsive action.

Willing to present orally: Yes

Financial Support: T32 DA07287 (DJS), P50 DA033935 (KAC/NCA), K05 DA020087 (KAC)

Name of Sponsor (If you are NOT) a CPDD Member: Kathryn A. Cunningham, PhD

Email Address of Sponsor : kcunning@utmb.edu

Prefix: Mr.

First Name: Dennis

Last Name: Sholler

Email: djsholle@utmb.edu

Company Affiliation: University of Texas Medical Branch

Mailing Address: 7019 Lasker Drive

Address 2: Apt 524

City: Galveston

State: TX

Zip/Postal: 77551

Country: United States

Phone: 4096929396

Membership Year: 2017

Sponsor: Dr. Kathryn A. Cunningham

Travel Award: NIDA Diretor 2017

Research Interests: Behavioral Pharmacology,Neurobiology

ID: 338
Caudate volumes and cognition in primarily ketamine and poly-drug ketamine users

Huajun Liang, University of Hawaii, huajun.liang@umm.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Imaging

Abstract: AIM: Ketamine is predominantly abused by young people and poly-drug users. No study has examined the brain volumes of primarily ketamine (K) users. Enlarged bilateral caudates were found in those with substance use disorders. This study aims to evaluate possible group differences in caudate volumes and in cognition between primarily- and poly-ketamine users (Poly-K). METHODS: T1-weighted MRI was obtained in 43 Non-drug users, 33 K users and 37 Poly-K users. Caudate volumes were automatically segmented using our customized-analysis procedures, including brain extraction, normalization, segmentation and parcellation with the Anatomical Automatic Labeling atlas. Participants also completed a battery of neuropsychological tests and mood assessments. One-way analysis of covariance was used to detect group differences (covaried for age, sex, education). RESULTS: Caudate volumes in both user groups were larger than non-drug users (PolyK>K>non-users, linear trend test: left, $p=0.013$; right, $p=0.033$). Both ketamine user groups had higher depression scores and performed poorer on Arithmetic than Non-users. Primarily-K users also had lowest scores on Verbal Fluency, Learning and Verbal Memory amongst three groups. Larger right caudate correlated with lower Verbal Memory score. Ketamine usage patterns were similar between the two user groups, and did not correlate with the caudate volumes. However, greater lifetime usage correlated with higher depression scores in Primarily-K users. CONCLUSION: Enlarged caudate volumes in the ketamine users might be due to neuroinflammation (e.g., glial activation), which in turn might contribute to poorer cognition. The even larger caudate volumes in our Poly-K users compared to the Primarily-K users suggest additional effects of other substances (e.g., cocaine, tobacco/nicotine) on neuroinflammation. However, the poorest cognitive performance in our primarily-K users suggests neurotoxic effects of ketamine. Ongoing work with diffusion tensor imaging and MR-spectroscopy will further clarify the neuropathology. Future studies need to assess for additional effects of tobacco and alcohol use in ketamine users.

Willing to present orally: No

Financial Support: This work was supported by the Beat Drugs Fund, Narcotics Division, Security Bureau, the Government of the Hong Kong Special Administrative Region, and by the National Institute on Drug Abuse, National Institute of Health

Name of Sponsor (If you are NOT) a CPDD Member: Linda Chang

Email Address of Sponsor : Linda.Chang@umm.edu

Prefix: Dr.

First Name: Huajun

Last Name: Liang

Degrees: MA MD Ph.D etc:: MBBS, Ph.D

Email: huajun.liang@umm.edu

CC Email: lianghj@hawaii.edu

Company Affiliation: University of Hawaii

Mailing Address: 419 W. Redwood St.

Address 2: Suite 225

City: Baltimore

State: MD

Zip/Postal: 21201

Country: United States

Phone: 8083871999

ID: 339
The effects of food restriction on the acquisition and persistence of responding for an opioid-associated stimulus.

Stephen Robertson, University of Michigan, robeste@med.umich.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Behavior

Abstract: Aim: Drug-associated stimuli take on conditioned reinforcing properties that promote drug-seeking and taking. Previous research has shown that, following response-independent infusions of remifentanil (mu opioid agonist) paired with a stimulus, rats learned to make a novel response for presentations of an opioid-associated stimulus to a greater extent than control rats. Food restriction increases the self-administration of drugs of abuse, presumably by sensitizing the dopaminergic reward system. In the current experiment, we assessed the extent to which food restriction also influenced the acquisition and persistence of responding for an opioid-associated stimulus. Methods: First, we provided restricted access (20 g/day standard chow) or ad libitum access to standard chow to rats. Second, within each feeding condition, we exposed rats to 20 i.v. infusions of remifentanil and 20 stimulus presentations that were delivered response independently each day for 5 days. For the experimental group (Paired Conditioning), the remifentanil infusions and stimulus presentations were delivered concurrently. The control group (Unpaired Conditioning) received the same number of infusions and stimulus presentations, but they were not explicitly paired. For the next 28 sessions, we tested the extent to which the stimulus functioned as a conditioned reinforcer by allowing rats to freely respond for presentations of the remifentanil-associated stimulus. Results: We found that rats that in the Paired Conditioning group responded for the remifentanil-associated stimulus significantly more than rats in the Unpaired Conditioning group ($p < 0.001$, $hp2 = 0.41$), regardless of feeding condition ($p = 0.12$, $hp2 = 0.09$). Conclusion: These findings demonstrated that a remifentanil-associated stimulus takes on conditioned reinforcing properties; however, these properties are not altered by food restriction. To the extent that food restriction modifies dopaminergic systems, these findings suggest differential involvement of dopamine in modulating primary, rather than conditioned reinforcing properties of remifentanil, which we will investigate in subsequent experiments.

Willing to present orally: Yes

Financial Support: Funding for this project: RO1 DA042092; Biology of Drug Abuse Training Grant (T32 DA 007268)

Prefix: Dr.

First Name: Stephen

Middle Initial: H

Last Name: Robertson

Degrees: MA MD Ph.D etc:: Ph.D

Email: robeste@med.umich.edu

CC Email: robeste4@isu.edu

Company Affiliation: University of Michigan

Mailing Address: 3418 Chelsa Circle

City: Ann Arbor

State: MI

Zip/Postal: 48108

Country: United States

Phone: 5402223149

Membership Year: 2018

Sponsor: Dr. Margaret Gnegy, PhD

Research Interests: Behavioral Pharmacology,Neurobiology

ID: 340
Dillies, gas, butyr, piff: Finding opioid and marijuana drug terms on social media

Nikki Adams, University of Maryland, nadams2@umd.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Both marijuana and opioids, but not necessarily in combination

Topic: Epidemiology

Abstract: Aim: To determine which platform, Reddit or Twitter, is better suited to drug term discovery and how this varies for marijuana terms compared to opioid terms. This builds off previous work performed under the NIDA-funded NDEWS (National Drug Early Warning System) project. Methods: We employ big data machine learning methods (word embeddings) for drug term discovery, that is, finding unknown terms using already known terms. The models built can take a drug term as a query, e.g. “weed”, and return a list of similar terms, some of which may be synonyms, e.g. “piff.” We build three models from: (1) unfiltered Twitter data, (2) keyword-filtered Twitter data, and (3) filtered (by subforum) Reddit data. We compare the ability to find drug synonyms in each of these models for two types of drugs: opioids and marijuana. Results: Results vary by platform as well as between the two drug classes. For either platform, there are many more terms for marijuana than for any one type of opioid. However, Reddit shows a greater breadth of opioid drug terms. This is in part due to reduced noise in the data, as the Reddit data consisted of only drug-related subforums while the unfiltered Twitter data was a broad sample of all tweets. However this breadth of opioid terms remains true even when comparing Reddit to filtered Twitter, where such a filtered data set yields 22 unique opioid-related terms compared to 57 from the Reddit data set. Conclusion: These results indicate two important messages: (1) this method can be used for finding recent drug terms, such as those that are published in the DEA drug slang list, often ahead of their publication, and (2) it is important to carefully consider which social media platform is best suited to a particular research goal, as results can differ greatly.

Willing to present orally: Yes

Financial Support: Research reported in this publication was supported by the National Institute on Drug Abuse of the National Institutes of Health under Award Number U01DA038360, awarded to CESAR at the University of Maryland, College Park. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Name of Sponsor (If you are NOT) a CPDD Member: Linda Cottler, PhD

Email Address of Sponsor : lbcottler@ufl.edu

Prefix: Dr.

First Name: Nikki

Last Name: Adams

Degrees: MA MD Ph.D etc:: PhD

Email: nadams2@umd.edu

Company Affiliation: University of Maryland

Mailing Address: UMD - CESAR

Address 2: 4321 Hartwick Rd, Ste 501

City: College Park

State: MD

Zip/Postal: 20742

Country: United States

Phone: 301-405-9773

ID: 341
The role of age and sex in patients on medication assisted therapy for opiate use disorder

Gretchen Hermes, Yale University School of Medicine, gretchen.hermes@yale.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Sex Differences

Other Topic: Aging

Abstract: AIM: As the baby boomer generation ages, opioid misuse among older Americans is becoming an increasingly urgent public health concern. The population of older adults who misuse opioids is projected to double from 2004 to 2020, from 1.2 percent to 2.4 percent (MHSA, 2012). Little is known about the effects of Medication Assisted Therapy (MAT) on aging patterns or how these differences might be mediated by sex. METHODS: To characterize the experience of older adults and men vs. women on MAT, we conducted a medical chart review of treatment-seeking individuals ≥ 50 enrolled in treatment programs from [12/1/14-5/30/18] at the APT Foundation, a flagship treatment facility for Opioid Use Disorder (OUD) in the greater New Haven area. This community sample included 588 individuals, 498 individuals were < 50 years old, 303 men and 195 women; 90 individuals were ≥ 50 years old, 59 men and 31 women. Data was obtained from clinical interviews, the BASIS-24, the Pain and Physical Activity Screener (PAPAS) and the Life Events Checklist (LEC-5) and assessed by age and sex. Data was analyzed using a General Linear Multivariate model (GLM) in SPSS™. RESULTS: Individuals ≥ 50 years were more likely to have mood symptoms ($p < 0$ .01) while women were more symptomatic than men ($p < 0.01$). Older individuals were less likely to use illicit substances, ($p < 0.05$); there were no sex differences in the use of illicit substances ($p < 0.90$). Older individuals and women were more likely to endorse lifetime chronic pain ($p < 0.05$ and $p < 0.05$). Both aging individuals and women reported more incidences of life-threatening illness or injury ($p < 0.05$ and $p < 0.05$). CONCLUSIONS: Preliminary findings suggest that age and sex mediate significant differences in mood, pain, and trauma in a community sample of MAT patients.

Willing to present orally: Yes

Financial Support: None to disclose

Prefix: Dr.

First Name: Gretchen

Middle Initial: L.

Last Name: Hermes

Degrees: MA MD Ph.D etc:: MD, PhD

Email: gretchen.hermes@yale.edu

Company Affiliation: Yale University School of Medicine

Mailing Address: 2 Church Street South

Address 2: Suite 209

City: New Haven

State: CT

Zip/Postal: 06519

Country: United States

Phone: 203-508-0827

Fax: 203-781-4705

Sponsor: Dr. Rjita Sinha and Dr. Declan Barry, PhD

Research Interests: Neurobiology,Psychiatric/Medical Morbidity

Date of Membership: 11.16.18 approved

ID: 342
PrEP awareness and interest among people who inject drugs in rural West Virginia

Kristin Schneider, Johns Hopkins Bloomberg School of Public Health, kschne18@jhu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Injection Drug Use and Harm Reduction

Topic: AIDS/Immune

Abstract: Aim: The opioid epidemic has had disproportionate impacts in rural communities, including increases in risks for injection drug use-associated HIV outbreaks among PWID. Pre-exposure prophylaxis (PrEP) for HIV prevention is an evidence-based strategy to reduce HIV risk among PWID. However, very little research has been conducted to understand PrEP awareness and acceptability among rural PWID populations. We aim to describe awareness of and interest in pre-exposure prophylaxis (PrEP) for HIV prevention among a rural population of people who inject drugs (PWID) and to explore how injection related HIV risk behaviors are associated with interest in PrEP. Methods: Cross-sectional data were derived from a survey of rural PWID that was conducted in June and July 2018 in Cabell County, WV. We utilized data from the study subsample who had reported injecting drugs in the past 6 months (n=421). Participants were asked about their PrEP awareness and interest in utilizing PrEP for HIV prevention. Results: Our sample was primarily male (61%), White (84%), single (54%), and heterosexual (83%). Most had insurance (73%) and had been tested for HIV in the past 6 months (52%). One-third were aware of PrEP (33%) and 58% were interested in taking PrEP. A majority (84%) also reported that taking PrEP would be easy. Individuals who reported sharing any injection equipment (syringes, cookers, cottons, rinse water) expressed significantly more interest in PrEP than their non-sharing counterparts (63% vs 51%, p=0.01). Conclusions: Rural PWID are largely unaware of PrEP; however, most were interested in using PrEP upon learning of its efficacy for HIV prevention. This deficit in PrEP awareness represents a significant missed opportunity for HIV prevention in rural settings. In addition, the majority of rural PWID believed that PrEP would be easy to use. Future work should explore how to increase PrEP awareness and utilization among rural PWID.

Willing to present orally: Yes

Financial Support: This research was supported in part by the National Institute on Drug Abuse (T32DA007292, KES supported; 1K01DA046234-01, Allen) and a Bloomberg American Health Initiative grant (PI: STA). This research has also been facilitated by the services and resources provided by the District of Columbia Center for AIDS Research, an NIH funded program (AI117970), which is supported by the following NIH Co-Funding and Participating Institutes and Centers: NIAID, NCI, NICHD, NHLBI, NIDA, NIMH, NIA, FIC, NIGMS, NIDDK, and OAR. The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH.

Name of Sponsor (If you are NOT) a CPDD Member: Eric Strain

Email Address of Sponsor : estrain1@jhmi.edu

Prefix: Ms.

First Name: Kristin

Middle Initial: E

Last Name: Schneider

Email: kschne18@jhu.edu

CC Email: kschne18@jhu.edu

Company Affiliation: Johns Hopkins Bloomberg School of Public Health

Mailing Address: 624 N Broadway

Address 2: Room 886

City: Baltimore

State: MD

Zip/Postal: 21205

Country: United States

Phone: 9082689624

ID: 343
Examining the relationship between trait resilience, sex and addiction severity among individuals with opioid use disorder

Suky Martinez, NYSPI/Columbia University, martinez.suky@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Sex Differences

Abstract: Aim: Trait resilience is an adaptive personality feature that modulates an individual's capacity to overcome adversity while maintaining normal psychological functioning. Because resilience has been shown to be associated with improved outcomes in many psychological disorders, its potential role in mediating the severity of opioid use disorder (OUD) warrants exploration. Methods: These data were collected as part of an ongoing clinical investigation related to opioid overdose education. As part of the study procedures participants completed a battery of measures including the Addiction Severity Index (ASI) and Connor-Davidson Resilience Scale 25 (CD-RISC 25: range 0-100). Our analysis examined the associations among resilience, OUD patient type (active non-medical opioid users and patients in medication-assisted therapy [MAT]), severity of drug use (ASI Drug Composite Score: range: 0.0-1.00), and sex. Results: The sample consisted of 194 men and 61 women, and 132 active non-medical opioid users and 123 patients in MAT groups. The mean resilience scores were 74.9 (SD=16.5) and 75 (SD=15.6) for active non-medical opioid users and patients in MAT, respectively. The mean ASI composite scores were 0.3 (SD=0.15) and 0.2 (SD=0.17) for active non-medical opioid users and patients in MAT, respectively. A significant negative correlation was found between resilience and addiction severity for both groups: active users ($r = -0.181$, $p < 0$ .05), patients in MAT ($r = -0.194$, $p < 0$ .05). Further analyses revealed that this association was only significant among men ($r = -0.156$, $p < 0$ .05). Conclusions: Our data show that individuals with OUD have higher trait resilience than previously reported in substance-using and psychiatric samples, but less resilience than samples of healthy populations. The present study provides evidence for the relationship between trait resilience and addiction severity among individuals with OUD. Future studies should examine the psychological and biological underpinnings of trait resilience to better understand its role in susceptibility and maintenance of substance use disorders.

Willing to present orally: Yes

Financial Support: Supported by NIDA grant R01DA016759 to Dr. Sandra D. Comer.

Name of Sponsor (If you are NOT) a CPDD Member: Sandra D. Comer, PhD

Email Address of Sponsor : Sandra.Comer@nyspi.columbia.edu

Prefix: Mr.

First Name: Suky

Last Name: Martinez

Degrees: MA MD Ph.D etc:: BA

Email: martinez.suky@gmail.com

CC Email: suky.martinez@nyspi.columbia.edu

Company Affiliation: NYSPI/Columbia University

Mailing Address: 1051 Riverside Drive

City: New York

State: NY

Zip/Postal: 10032

Country: United States

Phone: 917.279.0229

Travel Award: 2018

ID: 344
Criminal behavior and arrest among opioid-dependent youth following residential rehabilitation

Laura Monico, Friends Research Institute, lmonico@friendsresearch.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Adolescent

Abstract: Aims: To examine criminal behavior and arrest at 3 and 6 months following discharge from a residential substance abuse treatment program - among 288 adolescent and young adult participants receiving either extended-release naltrexone (XR-NTX, n=82), buprenorphine (BUP, n=94) or no pharmacotherapy (No Meds, n=112) for opioid dependence. Methods: This study conducted in Baltimore, MD enrolled 288 adolescent participants ages 15-21 (54% male, 83% white). Participants were interviewed using the Economics Form 90 at baseline (during a residential treatment episode), and 3 and 6 months post-discharge. Participants were asked about their criminal behavior and arrest history at each interview. Data were analyzed using Generalized Linear Mixed Model (GLiMM), in a two group comparison (XR-NTX vs. BUP and No Meds) and three group comparison (XR-NTX vs. BUP vs. No Meds). Results: The majority of participants in all groups had been treated for substance use disorder prior to this residential treatment episode (82.9%, 71.3%, and 76.8%, respectively). The age of first opioid use was the only significant baseline difference among the groups, with participants who received XR-NTX initiating opioid use earlier (15.2 years) than those receiving No Meds (16 years) (-.74 ± .30, p = .035). Across all groups, 99% reported engaging in criminal behavior during the 90 days prior to baseline, and approximately one-quarter of participants (24.3%) reported having been arrested during this same period. Group comparisons at each of the follow-up time-points will be presented. Conclusions: These findings could inform future interventions and clinical practice targeting opioid-dependent youth, who are often engaged in criminal behavior and have entanglements with the criminal justice system.

Willing to present orally: No

Financial Support: NIDA (1R01DA033391, PI: Mitchell)

Prefix: Dr.

First Name: Laura

Middle Initial: B.

Last Name: Monico

Degrees: MA MD Ph.D etc:: Ph.D.

Email: lmonico@friendsresearch.org

Company Affiliation: Friends Research Institute

Mailing Address: 1040 Park Avenue Suite 103

City: Baltimore

State: MD

Zip/Postal: 21201

Country: United States

Phone: 443-478-0415

Fax: 410-752-4218

Membership Year: 2014

Sponsor: Dr. Shannon G. Mitchell, Ph.D. and Dr. Robert Schwartz

Research Interests: Behavioral Pharmacology,Health Services

ID: 345
A cohort study investigating and addressing morbidity, mortality and health care costs among substance use disorder patients in an acute care setting in Vancouver, Canada.

Seonaid Nolan, University of British Columbia, seonaid.nolan@bccsu.ubc.ca

---

Abstract Category: Program Descriptions

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: all substance use disorders

Topic: Epidemiology

Abstract: Aim: Substance use disorders (SUD) place a substantial burden on the healthcare system, with hospitalization accounting for 50% of this expense. Hospitals offer a unique setting for SUD identification and intervention. At present, new research is urgently needed to inform how hospital service delivery practices and policies can be optimized to better serve the needs of those at risk of substance-use related morbidity and mortality following hospital discharge. Methods: The Outcomes for Patients Assessed for Addiction Care (OPAC) study is a cohort of SUD patients who present to St. Paul's Hospital in Vancouver, Canada. Participants complete a one-time questionnaire and provide consent for linkage of their personal identifiers to a number of administrative databases for ongoing follow-up over 5 years. A subset of participants will also participate in qualitative interviews to describe their experiences presenting to- and in-hospital, as well as their previous post-hospital discharge experiences. Using a mixed-methods approach, the OPAC study will: 1. Describe and prospectively monitor health care utilization patterns and health outcomes of SUD patients who present to hospital. 2. Identify health, social and drug use patterns among key subgroups associated with the negative health impacts of ongoing substance use (e.g., overdose, hospitalization, mortality). 3. Characterize and track transitions out of acute hospital-based care to identify promising new hospital-based interventions that could benefit SUD patients after discharge. 4. Identify actionable strategies to optimize hospital-based practices and policies in order to reduce morbidity and mortality. Discussion: Results of the OPAC study will inform how the hospital-based health system can effectively prevent morbidity and mortality and improve health outcomes for SUD patients. It will also determine how best to accomplish this among key subgroups of SUD patients, as well as provide a rich framework to develop a myriad of hypotheses for future intervention studies, ongoing monitoring and evaluation.

Willing to present orally: Yes

Financial Support: SN and LT are both supported by the Michael Smith Foundation for Health Research (MSFHR) through a Health Professional Investigator and Scholar Award respectively. Additional support for the study has been provided by the St. Paul's Hospital Foundation.

Prefix: Dr.

First Name: Seonaid

Last Name: Nolan

Email: seonaid.nolan@bccsu.ubc.ca

Company Affiliation: University of British Columbia

Mailing Address: 553B-1081-Burrard Street

City: Vancouver

State: BC

Zip/Postal: V6Z 1Y6

Country: Canada

Phone: 6048069142

Sponsor: Dr. Jeffrey Samet and Dr. Richard Saitz

Research Interests: Epidemiology,Health Services

Date of Membership: 11.16.18 approved

ID: 346
Mirtazapine for methamphetamine use disorder among men and transwomen who have sex with men: A randomized placebo-controlled trial

Phillip Coffin, San Francisco Department of Public Health, phillip.coffin@sfdph.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Treatment

Abstract: Background: Methamphetamine use is prevalent and associated with HIV transmission, however there areno approved pharmacotherapies for methamphetamine use disorder. A previous phase 2a study of mirtazapine demonstrated substantial reductions in methamphetamine use and sexual risk behaviors among men who have sex with men (MSM). Methods: We conducted a confirmatory phase 2b double-blind, placebo-controlled, randomized trial of mirtazapine 30mg PO daily versus matched placebo with background weekly substance use counseling over 24 weeks, with 12 weeks of follow-up, from 2013-2017 among 120 persons with methamphetamine use disorder who were born or identified as male and reported sex with men. We report changes in urine positivity over the first 12 and 24 (primary outcomes) and 25-36 weeks post-treatment and sexual risk behaviors (secondary outcome). Results: Mean age was 43 years, 96% currently identified as male, 51% white, 26% African-American, and 13% Latino. Sixty-six percent of visits were completed with no difference by arm (p=0.28). By week 12, the rate of methamphetamine-positive urines declined by 33% (95% CI 13, 49%) among the mirtazapine arm compared to placebo. The net effect of mirtazapine compared to placebo at week 24 was a reduction of 25% (95% CI 0, 44%). Urine positivity was nominally lower by 16% (95% CI -4, 32%) in weeks 25-36. Medication adherence by WisePill dispenser was 39.0% through week 12 and 33.3% in weeks 13-24, with no differency by arm (p=0.77 and p=0.59). Changes in sexual risk behaviors were similarly between arms (all P>0.05). There were no serious adverse events related to study drug.
Conclusions: Mirtazapine is the first medication demonstrated in two independent controlled trials to reduce methamphetamine use, with signs of benefit extending through 24 weeks of treatment.

Willing to present orally: Yes

Financial Support: NIDA R01DA034527 Please note: Findings are STRICTLY CONFIDENTIAL & only willing to present orally

Prefix: Dr.

First Name: Phillip

Last Name: Coffin

Degrees: MA MD Ph.D etc:: MD, MIA

Email: phillip.coffin@sfdph.org

CC Email: michaela.varisto@sfdph.org

Company Affiliation: San Francisco Department of Public Health

Contact Title: Director, Substance Use Research Unit

Mailing Address: 25 Van Ness Ave. Suite 500

City: San Francisco

State: CA

Zip/Postal: 94102

Country: United States

Phone: (415) 4376282

Fax: (415) 4317154

Membership Year: 2012

Sponsor: Dr. Donald Calsyn and Dr. James Sorenson

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 347
Exacerbating reinforcer pathology: Hurricane-associated loss increases delay discounting and demand for cocaine in cocaine users

Sarah Snider, Virginia Tech Carilion Research Institute- ARRC, sniderse@vtc.vt.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Behavior

Abstract: Aim: Reinforcer pathology theory describes the interaction of two behavioral decision-making processes, 1) excessive preference for an immediately available commodity (i.e., delay discounting) and 2) overvaluation of that commodity (i.e., behavioral economic demand). In particular, individuals with cocaine use disorder demonstrate excessive discounting of delay rewards as well as overvaluation of cocaine. Recent evidence has demonstrated, however, that narrative scenarios can acutely modulate an individual's reinforcer pathology. The present on-going study examined how a narrative describing a devastating hurricane changed reinforcer pathology for cocaine among cocaine users. Method: Participants (n = 21) were asked to read and consider how they would feel in their randomly assigned hypothetical scenario (i.e., hurricane [negative] or mild storm [neutral]). Then, participants were asked to complete a delay discounting task and a purchase task for grams of cocaine. Results: Results indicated a trending increase in delay discounting and a significant increase ($p < 0$ .001) in demand for cocaine in the hurricane group, compared to the mild storm group. Conclusions: The current results provide proof-of-concept to suggest that vivid consideration of a negative scenario, such as a devastating hurricane, increases reinforcer pathology of cocaine in cocaine users via increases in cocaine valuation. Moreover, given these data, positive scenarios may have potential in decreasing reinforcer pathology in this population.

Willing to present orally: No

Financial Support: This work is supported by R01DA034755 and Virginia Tech Carilion Research Institute.

Name of Sponsor (If you are NOT) a CPDD Member: Warren Bickel

Email Address of Sponsor : wkbickel@vtc.vt.edu

Prefix: Dr.

First Name: Sarah

Middle Initial: E

Last Name: Snider

Degrees: MA MD Ph.D etc:: Ph.D.

Email: sniderse@vtc.vt.edu

CC Email: sniders87@gmail.com

Company Affiliation: Virginia Tech Carilion Research Institute- ARRC

Mailing Address: 2 Riverside Circle

City: Roanoke

State: VA

Zip/Postal: 24016

Country: United States

Phone: 5405262236

ID: 348
Assessing cohort differences in the grade of onset and initiation sequence of e-cigarette, cigarette, and smokeless tobacco use among U.S. adolescents

Philip Veliz, University of Michigan, ptveliz@umich.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Adolescent

Abstract: Aims: This study examines cohort differences in the grade of onset and initiation sequence of e-cigarette, cigarette, and smokeless tobacco use in order to assess if e-cigarette use behaviors are changing over time, including associations with alcohol use, marijuana use, and illicit drug use. Methods: Data from the Monitoring the Future was used to examine three national cohorts of 8th and 10th graders between 2015 and 2017 (n = 47,101). Results: While e-cigarette, cigarette, and smokeless tobacco use declined between 2015 and 2017, the grade of onset of e-cigarette use substantially changed during this period. In particular, the percent of e-cigarette users who initiated in the 6th grade or lower was 8.8% in 2015, 13.5% in 2016, and 18.2% in 2017. The percent of both cigarette and smokeless tobacco users who initiated in the 6th grade or lower did not increase during this same time period. With respect to sequence of initiation, the percent of adolescents who indicated initiating e-cigarettes before cigarette use doubled between 2015 and 2017. In contrast, minimal changes were found in relation to initiation sequence between e-cigarette and smokeless tobacco use during this time period. No significant cohort differences emerged between the association between age of onset of e-cigarette use and past 30-day substance use behaviors, or between initiation sequence of e-cigarette and past 30-day substance use. Conclusion: Among U.S. adolescents in 2017, roughly 70% of e-cigarette users initiated prior to high school (i.e., 8th grade or lower); this is a substantial increase since 2015 (51.3%) and indicates the importance of monitoring age of initiation. Consistent with Problem Behavior Theory, early initiation of e-cigarettes was consistently found to be associated with significantly greater risk of cigarette smoking and other types of substance use behaviors, greater effort is needed to regulate e-cigarette use among youth.

Willing to present orally: No

Financial Support: Supported by research grants R01CA203809, R01CA212517, R01DA031160, R01DA036541 and R01DA044157.

Name of Sponsor (If you are NOT) a CPDD Member: Sean McCabe

Email Address of Sponsor : plius@umich.edu

Prefix: Dr.

First Name: Philip

Last Name: Veliz

Email: ptveliz@umich.edu

CC Email: ptveliz@umich.edu

Company Affiliation: University of Michigan

Mailing Address: 917 West Liberty

City: Ann Arbor

State: MI

Zip/Postal: 48103

Country: United States

Phone: 7168672583

ID: 349
Sex-specific bidirectional association between bullying perpetration and substance use among youth in the United States: Findings from the PATH Study

Marine Azevedo Da Silva, Columbia University - Mailman School of Public Health, marine.azevedo@inserm.fr

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Alcohol/Marijuana/Tobacco

Topic: Epidemiology

Other Topic: Sex Differences, Adolescent, Bullying behavior

Abstract: Aim: To examine the sex-specific bidirectional association between bullying perpetration and substance use among youth in the United States. Methods: We used data from the prospective cohort study of the Population Assessment of Tobacco and Health (PATH), from 2013-2014 to 2015-2016, to examine the bidirectional associations between bullying perpetration and substance use (alcohol, marijuana and cigarette) among youth in the United States. We analyzed associations between bullying perpetration and substance use using logistic regression. Results: The 13,094 youth included in the analytic sample were 12-17 years old at baseline (2013-2014), 51.3% were male, 70.8% were white, 48.9% were in high school, 29.7% and 33.8% experienced moderate and high lifetime internalizing problems. Among males, there were cross-sectional associations between lifetime bullying perpetration and lifetime alcohol (OR=1.46, 95% CI 1.25-1.70), marijuana (OR=1.47, 95% CI 1.18-1.82) and cigarette (OR=1.47, 95% CI 1.20-1.81) use. Among females, there were cross-sectional associations between lifetime bullying perpetration and lifetime alcohol (OR=1.52, 95% CI 1.31-1.76) and cigarette (OR=1.75, 95% CI 1.40-2.19) use. In a prospective analysis, lifetime bullying perpetration at baseline was associated with increased likelihood of alcohol (OR=1.40, 95% CI 1.12-1.76) and marijuana (OR=1.47, 95% CI 1.19-1.81) use at follow-up among males and with an increased likelihood of cigarette use among females at follow-up (OR=1.36, 95% CI 1.05-1.77). Conversely, lifetime alcohol use at baseline was associated with the incidence of bullying perpetration among male youth (OR=1.22, 95% CI 1.02-1.46) and lifetime cigarette use at baseline was associated with the incidence of bullying perpetration among female youth (OR=1.49, 95% CI 1.08-2.03). Conclusion: The association between bullying perpetration and substance use appears to be bidirectional and sex-specific. Bullying behaviors prevention and intervention strategies among youths should consider how account for effects of substance use.

Willing to present orally: Yes

Financial Support: This research is supported by a 2017 NIDA-Inserm Drug Abuse Research Fellowship from the National Institute on Drug Abuse and the French National Institute of Health and Medical Research.

Prefix: Dr.

First Name: Marine

Last Name: Azevedo Da Silva

Degrees: MA MD Ph.D etc:: Ph.D

Email: marine.azevedo@inserm.fr

CC Email: ma3766@cumc.columbia.edu

Company Affiliation: Columbia University - Mailman School of Public Health

Mailing Address: 722 W 168th Street

Address 2: Room R515

City: New York

State: NY

Zip/Postal: 10032

Country: United States

Phone: +33675970578

Membership Year: 2018

Sponsor: Dr. Silva Martins, PhD

Research Interests: Epidemiology

ID: 350
Comparing social and nonsocial influences on cocaine seeking in male rats

Lindsey Hammerslag, University of Kentucky, l.hammerslag@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Stimulants

Topic: Behavior

Abstract: AIM: Re-association with drug-associated peers contributes to relapse in humans, and we have recently found that exposure to cocaine-paired peers triggers reinstatement in rats. We hypothesize that social cues are ecologically important stimuli and may be more salient than nonsocial cues in triggering relapse. In this experiment we compared reinstatement to either social or nonsocial discriminative stimuli associated with cocaine (S+) or saline (S-). METHODS: Male rats received 28 days of twice-daily self-administration, with cocaine (1 mg/kg/infusion) available during one session and saline during the other. Rats received either social (same-sex peer) or nonsocial (light/tone) discriminative stimuli in the adjoining chamber, to signal reinforcer availability. Infusions were earned under FR5 and were paired with a conditioned stimulus (CS), 20-s illumination of cue lights. Reinstatement to a combination of the discriminative stimulus (S+, S- or no stimulus) and CS (present or absent) was tested after 12 twice-daily extinction sessions; 4 extinction sessions separated tests. RESULTS: All rats acquired the lever pressing response; lever presses increased across sessions for cocaine but not saline (two-way interaction: $F_{27,459} = 5.77$, $p < 0.001$). Latency to first press was faster across sessions for the social S+ relative to the social S-, but this was not true for the nonsocial discriminative stimuli (three-way interaction: $F_{27,459} = 2.22$, $p < 0.001$). However, rats could discriminate between nonsocial discriminative stimuli, as the first infusion was earned more slowly when either the social or nonsocial S+ was present (three-way interaction: $F_{27,459} = 1.77$, $p = 0.011$). Reinstatement to the S+ interacted with CS ($F_{2,33} = 4.65$, $p = 0.017$) and stimulus type ($F_{2,34} = 5.21$, $p = 0.011$). The social S+ triggered reinstatement and elicited more responding than all other social and nonsocial stimuli. CONCLUSIONS: Although rats learned the discrimination using nonsocial stimuli, a social peer served as a more salient signal for cocaine availability, thus demonstrating that drug-associated social peers serve as potent triggers for relapse.

Willing to present orally: Yes

Financial Support: NIDA T32: DA16176; NIDA R21: DA041755

Prefix: Dr.

First Name: Lindsey

Middle Initial: R

Last Name: Hammerslag

Degrees: MA MD Ph.D etc:: Ph.D.

Email: l.hammerslag@gmail.com

CC Email: l.hammerslag@uky.edu

Company Affiliation: University of Kentucky

Mailing Address: 741 S. Limestone BBSRB 448B

Address 2: University of Kentucky

City: Lexington

State: KY

Zip/Postal: 40536

Country: United States

Phone: 217-721-8405

Membership Year: 2018

Sponsor: Dr. Jousha Gulley, PhD

Research Interests: Behavioral Pharmacology,Neurobiology

ID: 351
Longitudinal associations between cannabis use and self-reported motivation among adolescents

Ileana Pacheco-Colon, Florida International University, ipach008@fiu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Adolescent

Abstract: AIM Although cross-sectional work has yielded mixed findings, longitudinal work suggests that cannabis use (CU) may result in reduced motivation in adults. This study examines changes in motivation over time as a function of different CU trajectories among adolescents, predicting that adolescents with escalating CU will show a decrease in motivation and those with stable CU will show no change. METHODS Participants were 401 adolescents at risk for escalation in CU aged 14-17 at baseline who completed 5 biannual assessments over a 2-year period. We assessed past 6-month frequency of CU at all waves. Motivation was measured through the Apathy Evaluation Scale (AES) at waves 1, 3, and 5. We used growth mixture modeling to identify CU trajectories. We then estimated growth curves of motivation for all participants (n = 362), and for each CU trajectory. RESULTS A 3-class model of adolescent CU provided the best fit, and consisted of the following trajectories: “Escalating” (n = 72), with initially moderate CU that increased significantly over time; “Low” (n = 279), with consistently low CU; and “High” (n = 50), with consistently high CU. The overall growth curve of the AES score had an intercept (i.e. baseline AES score) significantly different from 0, (x = 28.37; p.13), indicating that self-reported motivation did not change over time. Across CU trajectories, mean AES intercepts were significantly different from 0 (Escalating: x = 29.04; Low: x = 28.27; High: x = 28.01; ps.05), suggesting no change in motivation over time. There were no between-class differences in baseline motivation (intercepts) or change in motivation (slopes), ps>.05. CONCLUSION We found no differences in baseline motivation or change in motivation over time between CU trajectories. Thus, our results do not support a link between CU and reduced self-reported motivation among adolescents.

Willing to present orally: Yes

Financial Support: R01 DA031176 (PI: Gonzalez) U01 DA041156 (FIU Site PI: Gonzalez) McKnight Doctoral Fellowship (Recipient: Pacheco-Colón)

Prefix: Ms.

First Name: Ileana

Last Name: Pacheco-Colon

Email: ipach008@fiu.edu

Company Affiliation: Florida International University

Mailing Address: 5091 NW 7th St Unit #1011

City: Miami

State: FL

Zip/Postal: 33126

Country: United States

Phone: 7872465944

ID: 352
The relationship between hallucinogen use and cognitive empathy

Charles Clark, Wichita State University, c.brendan.clark@wichita.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: hallucinogens

Topic: Behavior

Abstract: AIM A growing body of literature investigating hallucinogen-based interventions suggests that they may have useful applications in mental health treatment; promising findings include reducing intimate partner violence, predicting reduced recidivism in substance-involved criminal offenders, and possible psychopharmacological treatments for alcoholism, smoking, and anxiety disorders. The aim of this study is to explore the possible impact of hallucinogen use on cognitive empathy. METHODS Data analyzed for this study were gathered from 214 community participants who completed a battery of psychological measures including the International Personality Item Pool Big-5 (IPIP Big-5), the Reading the Mind in the Eyes Test (RMET), and a screener for self-reported history of hallucinogen use. Univariate analysis of variance (ANOVA) and linear regression analysis were conducted testing relationships between a self-reported history of hallucinogen use and cognitive empathy as measured by RMET. RESULTS A simple linear regression was calculated to predict cognitive empathy based on hallucinogen use while controlling for relevant covariates. A significant regression equation was found ($F(9, 135) = 9.33$, $p < .01$), with an $R2$ of .65. Cognitive empathy increased with self-reported history of hallucinogen use ($t = 3.17$, $p = .002$) as assessed by a screening measure of drug-use and medical history. CONCLUSION These results provide additional support indicating that hallucinogens may hold promise as part of future psychopharmacological treatments. This holds relevance for a wide variety of presenting problems, as impairment in cognitive empathy has been identified in such diverse DSM-5 diagnoses as schizophrenia, autism spectrum disorder, and anorexia nervosa.

Willing to present orally: No

Financial Support: R01CA14166305; PI: Cropsey

Name of Sponsor (If you are NOT) a CPDD Member: Karen L. Cropsey

Email Address of Sponsor : kcropsey@uabmc.edu

Prefix: Dr.

First Name: Charles

Last Name: Clark

Degrees: MA MD Ph.D etc:: Ph.D.

Email: c.brendan.clark@wichita.edu

Company Affiliation: Wichita State University

Mailing Address: 9911 E 21st St N

City: Wichita

State: KS

Zip/Postal: 67206

Country: United States

Phone: 3123157454

Biography: c.brendan.clark@wichita.edu

ID: 353
Engagement in opioid agonist therapy and drug use among network members

Kayla Tormohlen, Johns Hopkins Bloomberg School of Public Health, ktormoh1@jhu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Other Topic: social network

Abstract: AIM: This study explored associations between drug use among network members and engagement in opioid agonist therapy (OAT). METHODS: Data was from the baseline survey of a longitudinal RCT aimed to reduce depressive symptoms and HIV risk behaviors. The study sample included participants aged 18 to 55 years old who reported using heroin within the past 5 years. OAT (methadone or buprenorphine) was defined as never on OAT, previously on OAT, or currently on OAT. Social network characteristics included proportion who use drugs (heroin or cocaine), frequency of interaction and relationship with those who use drugs, and proportion in drug treatment. Unadjusted multinomial logistic regression was used to assess differences in network characteristics across OAT status. RESULTS: 725 participants reported using heroin in the past 5 years; 35.7% were currently on OAT, 39.7% were previously on OAT, and 24.6% had never been on OAT. Compared to never on OAT, those who currently or previously utilized OAT had a higher proportion of network members who used drugs and they saw weekly (never OAT= 67.2%; previous OAT= 75.3%; current OAT=77.4%). Those currently on OAT had more network members in drug treatment compared to prior OAT and never OAT (never OAT= 9.2%; previous OAT= 16.5%; current OAT=36.0%). There was not a significant difference between any of the OAT groups in number of kin or spouses who used drugs. However, participants currently on OAT had significantly fewer sex partners who used drugs compared to participants never on OAT (current OAT mean=0.73; never OAT mean=1.02). CONCLUSIONS: Individuals utilizing OAT may have frequent contact with network members who use drugs and are in drug treatment. These relationships should be considered in treatment, as they could be a barrier or facilitator to retention. Additionally, OAT clients could impact initiation of OAT among network members who use drugs.

Willing to present orally: Yes

Financial Support: This work was supported by two National Institutes of Health (NIH) grants [R01DA022961, Latkin PI; T32DA007292, Tormohlen, PI: Renee M. Johnson].

Prefix: Ms.

First Name: Kayla

Middle Initial: N

Last Name: Tormohlen

Degrees: MA MD Ph.D etc:: MPH

Email: ktormoh1@jhu.edu

Company Affiliation: Johns Hopkins Bloomberg School of Public Health

Mailing Address: 624 North Broadway

Address 2: Room 888

City: Baltimore

State: MD

Zip/Postal: 21205

Country: United States

Phone: 9703701269

Membership Year: 2018

Sponsor: Dr. Eric Strain, MD

Research Interests: Epidemiology,Health Services

ID: 354
Heterogeneity in the cascade of OUD care: A retrospective study in British Columbia, Canada

Bohdan Nosyk, BC Centre for Excellence in HIV/AIDS, bnosyk@cfenet.ubc.ca

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: AIM: The 'cascade of care' concept of measuring attrition at various stages of care engagement has been proposed to guide the public health response in the opioid emergency in British Columbia (BC), Canada. We analyzed heterogeneity in the cascade of care for people with opioid use disorders (PWOUD) in BC to identify priority targets for public health intervention. METHODS: We included all PWOUD in BC as of November 30th 2017, via provincial linkage of four administrative databases. We generated 6-stage (prevalent population, diagnosed PWOUD, ever on opioid agonist treatment (OAT), currently on OAT, retained on OAT≥12m, and retained on OAT≥24m) cascades of OUD care, stratified by regional health authority (HA), age, sex, number of prior OAT episodes, and OUD-associated comorbidity. We highlighted regional strata with the lowest levels of engagement at 2 stages: ever on OAT and OAT retention ≥12m. Results: A total of 55,470 diagnosed PWOUD were alive at the end of study follow-up, 22,139 (40%) residing in Fraser HA. Vancouver Coastal HA had the highest percentages of ever on OAT (70%) and 12-month OAT retention (18%). Provincially, PWOUD ≥55 had the lowest percentage of ever being on OAT (51% vs 66% overall), with Northern HA (30%), Interior HA (44%) and Vancouver Island HA (48%) having the greatest deficits in care for this patient group. In terms of 12-month retention, PWOUD < 2 5 had the lowest retention provincially (8% vs 16% overall). However, those with no other substance use disorders had the largest gap in retention compared to other patient strata in both Northern HA (5%) and Interior HA (8%). CONCLUSION: These results highlight provincial and regional gaps in OAT engagement for PWOUD under 25, over 55, and with no other SUD diagnoses. These heterogeneities in care engagement can inform targeted, regional intervention strategies to reduce the public health burden of OUD.

Willing to present orally: Yes

Financial Support: Funding: This study was supported by a Health Canada Substance Use and Addictions Program (1819-HQ-000036).

Prefix: Dr.

First Name: Bohdan

Last Name: Nosyk

Degrees: MA MD Ph.D etc:: Ph.D

Email: bnosyk@cfenet.ubc.ca

CC Email: lpearce@cfenet.ubc.ca

Company Affiliation: BC Centre for Excellence in HIV/AIDS

Mailing Address: 2220 Vine street

City: Vancouver

State: BC

Zip/Postal: V6K3K4

Country: Canada

Phone: 604-230-9722

Sponsor: Dr. Jeffrey Samet, PhD and Dr. Richard Rawson

Research Interests: Health Services,Treatment

ID: 355
The role of accumbens serotonin transport and GluN2B-containing NMDA receptors in nicotine relapse

Cassandra Gipson-Reichardt, Arizona State University, cgipsonr@asu.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Nicotine/Tobacco

Topic: Neurobiology

Abstract: Authors: Jonna M. Leyrer-Jackson, Jose Pina, Joseph McCallum, Hanaa Ulangkaya, Cassandra D. Gipson Aim: Nicotine addiction has been associated with enduring changes in synaptic physiology within the basal ganglia that might contribute to relapse. Specifically, initiation of cue-induced nicotine seeking produces rapid, transient synaptic potentiation (t-SP) in nucleus accumbens core (NAcore) medium spiny neurons (MSNs), defined as increases in spine head diameter and AMPA to NMDA current ratios (A/N). Ifenprodil, which prevents nicotine reinstatement when administered systemically, antagonizes GluN2B-containing NMDA receptors and blocks serotonin transporters (SERT). The mechanisms underlying its therapeutic efficacy, however, remain unknown. Here we determined whether pharmacological blockade of NAcore SERT with citalopram or GluN2B-specific knockdown prevents cue-induced nicotine relapse and associated t-SP. Methods: Male Sprague-Dawley rats were implanted with intravenous jugular catheters as well as intra-NAcore cannula. Animals underwent nicotine self-administration, where the active lever yielded one infusion (0.02 mg/kg/infusion, i.v.) paired with a compound stimulus (light + tone), for a minimum of 10 days, followed by daily extinction sessions for 14 days. Rats received intra-NAcore injections of either ifenprodil, GluN2B siRNA, or citalopram prior to reinstatement. Rats were then sacrificed for spine analysis or whole-cell electrophysiology. Results: Intra-NAcore ifenprodil inhibited both nicotine seeking and structural t-SP ($p < 0 .001$). GluN2B antagonism produced a significant leftward shift in the distribution of spine head diameter ($p < 0 .01$), with no change in density. Downregulation of GluN2B did not prevent reinstatement ($p < 0 .05$) or alter A/N ($p=0.39$) Preliminary results suggest that intra-NAcore citalopram prevents cue-induced reinstatement. Conclusion: These results indicate that the therapeutic effects of ifenprodil may be due to blockade of SERT rather than antagonism of GluN2B. Ongoing studies in our laboratory are using mutant SERT plasmids to upregulate SERT function. This study will reduce the ability of ifenprodil to inhibit NAcore SERT, and will determine the role of SERT in nicotine seeking and associated NAcore t-SP.

Willing to present orally: Yes

Financial Support: This research was supported by NIDA (R00 DA036569, R03 DA045881, and R21 DA044479 to CDG).

Prefix: Dr.

First Name: Cassandra

Last Name: Gipson-Reichardt

Degrees: MA MD Ph.D etc:: Ph.D.

Email: cgipsonr@asu.edu

Company Affiliation: Arizona State University

Mailing Address: 950 McAllister Ave.

City: Tempe

State: AZ

Zip/Postal: 85287

Country: United States

Phone: (480) 727-5052

Membership Year: 2013

Sponsor: Dr. Peter Kalivas, Ph.D., Dr Michael Bardo, Ph.D and Dr. Foster Olive, Ph.D.

Travel Award: 2011

Research Interests: Behavioral Pharmacology,Neurobiology

ID: 356
Depression features associated with current marijuana use among youth

Brian Fairman, National Institute of Child Health and Human Development, brian.fairman@nih.gov

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Epidemiology

Other Topic: adolescent

Abstract: AIM: Although depression is a risk factor for marijuana use, it is unclear to what extent other important factors, such as depression severity, recurrence, level of impairment, and prescription medication for mood might relate to current use and frequency. METHODS: Data were combined across five cross-sectional annual surveys of the US National Survey on Drug Use and Health (2013-2017) and included youth ages 12-21 years who had a past-year major depressive episode and did not have current cannabis abuse or dependence (n=11588). Zero-inflated Poisson was used to regress the past-month days of marijuana use separately on depression severity, the age of onset, lifetime number of recurrent episodes, severe mood impairment, days lost due to mood impairment in the last year, and whether youth were currently taking prescription medication for mood. Models controlled for demographics, survey year, and living in a medical marijuana state. RESULTS: Past-month use of marijuana was associated with depression severity, more recurrent episodes, severe mood impairment, and a greater number of days lost due to mood impairment. Conditional on use, past-month marijuana frequency was associated with more recurrent episodes, days lost, and a younger age of depression onset. Taking prescription medication for mood was not associated with either current use or frequency. CONCLUSION: Youth with more severe and recurrent depression that experience significant levels of impairment in their lives are more likely to be currently smoking marijuana and at higher levels. Follow-up with longitudinal studies is needed to determine if these findings may be due to depression severity leading to greater self-medication or whether marijuana use exacerbates depression.

Willing to present orally: Yes

Financial Support: This work was supported by the Intramural Research Program of the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)

Prefix: Dr.

First Name: Brian

Middle Initial: J.

Last Name: Fairman

Degrees: MA MD Ph.D etc:: Ph.D.

Email: brian.fairman@nih.gov

CC Email: brian.fairman@nih.gov

Company Affiliation: National Institute of Child Health and Human Development

Mailing Address: 6710B Rockledge Dr., MSC 7004

Address 2: Room 3153A

City: Bethesda

State: MD

Zip/Postal: 20817

Country: United States

Phone: 5172317616

Membership Year: 2009

Sponsor: James Anthonhy, Ph.D.

Research Interests: Epidemiology Treatment

ID: 357
Scheduling synthetic cathinone substances under the Controlled Substances Act

Katherine Bonson, U.S. Food and Drug Administration, katherine.bonson@fda.hhs.gov

---

Abstract Category: Theoretical/Commentary

Abstract Detail: Human

Drug Category: Stimulants

Topic: Policy

Abstract: Aims Cathinones are amphetamine analogues that produce stimulant effects with rewarding properties. For many decades, synthetic cathinones have been used in the United States (U.S.) for abuse purposes, leading to concern about public safety by the federal government. Under the Controlled Substances Act (CSA), the federal government may place drugs with high abuse potential but no currently accepted medical use into Schedule I of the CSA. The process of scheduling an abusable drug involves both the Department of Health and Human Services (HHS), through the Food and Drug Administration (FDA) and the National Institute on Drug Abuse (NIDA), and the Department of Justice, through the Drug Enforcement Administration (DEA). This presentation details how numerous synthetic cathinones were placed under CSA control between 1973 and 2018, with an emphasis on 10 cathinones that were placed into Schedule I in 2017 (butylone, naphyrone, pentylone, pentedrone, 3-FMC, 4-FMC, 4-MEC, 4-MePPP, α-PBP, and α-PVP). A summary is provided of the scientific and medical analysis performed by HHS, in the form of an Eight Factor Analysis (8FA), as prescribed by the CSA. This 8FA was then evaluated and signed by the Assistant Secretary for Health at HHS and transmitted to DEA, which permanently placed the 10 cathinones into Schedule I after public notices were published into the Federal Register. Conclusions Understanding the scientific data, analysis, and complex process utilized by the U.S. federal government in the CSA scheduling of cathinones with abuse potential and no accepted medical use is important for transparency in governmental decision-making.

Willing to present orally: No

Financial Support: Salary support from Food and Drug Administration.

Name of Sponsor (If you are NOT) a CPDD Member: Silvia Calderon (FDA)

Email Address of Sponsor : silvia.calderon@fda.hhs.gov

Prefix: Dr.

First Name: Katherine

Last Name: Bonson

Degrees: MA MD Ph.D etc:: Ph.D.

Email: katherine.bonson@fda.hhs.gov

CC Email: kbonson@earthlink.net

Company Affiliation: U.S. Food and Drug Administration

Mailing Address: 10903 New Hampshire Ave

Address 2: Building 51, Room 5116

City: Silver Spring

State: MD

Zip/Postal: 20993

Country: United States

Phone: 301-796-3118

ID: 358
Departure against medical advice (AMA) among hospitalized medical patients with substance use disorder (SUD)

Jan Gryczynski, Friends Research Institute, jgryczynski@friendsresearch.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Other Topic: services; hospitals

Abstract: Aims: To examine the characteristics of hospitalized medical patients with comorbid substance use disorders (SUD) who leave against medical advice (AMA), and to determine whether adding a patient navigator to an established hospital SUD consultation service reduces AMA departures. Methods: This study draws from the Navigation Services to Avoid Rehospitalization (NavSTAR) study, a randomized trial comparing a Patient Navigation intervention (NavSTAR) to treatment as usual (TAU) for medical and surgical inpatients with comorbid SUDs (N= 400; 44% female; 42% white). Participants in both arms received standard care from medical providers and a hospital SUD consultation team. Participants in the NavSTAR arm also met with a Patient Navigator at the hospital bedside (and subsequently in the community post-hospital discharge). The current study focuses on leaving the index hospitalization AMA, ascertained via health record review. Results: Rates of DSM-5 SUD criteria for opioid, cocaine, and alcohol use disorder were 78.5%, 54.0%, and 36.0%, respectively, with 92.0% meeting criteria for severe-spectrum SUD. The mean (SD) length of hospitalization during the index episode was 6.9 (5.7) days. While AMA departure was relatively rare (9%), participants in the NavSTAR arm were less likely to leave AMA than participants in the TAU arm (6% vs. 12%; p=.03). In a logistic regression model adjusting for sex, race, age, and SUD diagnoses, variables associated with lower likelihood of leaving AMA include female sex (OR=.43; 95% CI=.20, .94; p = .03), older age (OR=.94; 95% CI=.91, .98; p< .01), and NavSTAR arm (OR=.37; 95% CI=.17, .80; p= .01). Conclusions: Even among hospitalized patients seen by a well-established SUD consultation service, a brief bedside visit from a Patient Navigator with the promise of post-discharge assistance was associated with a reduced likelihood of leaving medical hospitalization prematurely. These findings have implications for improving discharge planning among hospital patients with comorbid SUDs.

Willing to present orally: Yes

Financial Support: NIDA R01DA037942

Prefix: Dr.

First Name: Jan

Last Name: Gryczynski

Degrees: MA MD Ph.D etc:: Ph.D.

Email: jgryczynski@friendsresearch.org

Company Affiliation: Friends Research Institute

Mailing Address: 1040 Park Avenue #103

City: Baltimore

State: MD

Zip/Postal: 21201

Country: United States

Phone: (443) 676-4219

Fax: (410) 752-4218

Membership Year: 2015

Sponsor: Dr. Robert Schwartz and Dr. Shannon G. Mitchell

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 359
Carisoprodol: Concomitant use and abuse with opioids

Greg Hawkins, U.S. Food and Drug Administration, Edward.Hawkins@fda.hhs.gov

---

Abstract Category: Theoretical/Commentary

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Drug Interactions

Abstract: Aim: To evaluate the abuse potential of the concomitant use of carisoprodol and opioids. Background: Carisoprodol is a centrally acting skeletal muscle relaxant that is currently controlled in Schedule IV of the Controlled Substances Act. Carisoprodol is used to treat lower back pain and may be combined with opioids when pain relief is inadequate. Nonclinical evidence indicates that carisoprodol, and its major active metabolite, meprobamate, activates GABAA receptors resulting in an increase in dopamine in the nucleus accumbens. As opioids produce a similar effect, it is possible that carisoprodol may potentiate the subjective and adverse effects of opioids. Methods: To understand whether the administration of carisoprodol affects the subjective effects of opioids we evaluated drug abuse discussion boards for reports of their co-use. Another muscle relaxant, cyclobenzaprine served as a negative control and benzodiazepines served as a positive control. Results: The primary search found 60 threads consisting of 1,696 separate posts from 961 separate individuals. The data indicate that the percent of people who endorse using benzodiazepines with opioids (18.16%) is similar to that who endorse using carisoprodol with opioids (18.35%). Individuals endorsed the combined use of cyclobenzaprine and opioids to a lesser extent (11.92%). Furthermore, more individuals did not recommend based on their experience, concomitant use of opioids and benzodiazepines (7.78%)compared to opioids and carisoprodol (1.87%). Conclusion: Our study of individuals reporting on drug abuse discussion boards indicates that they believe carisoprodol can increase the reinforcing effects of opioids to a similar extent as benzodiazepines. Further studies on the combined use of carisoprodol measuring the levels of use of the combination may provide more information on the safety and abuse potential of this combination.

Willing to present orally: No

Financial Support: N/A

Name of Sponsor (If you are NOT) a CPDD Member: Silvia Calderon

Email Address of Sponsor : Silvia.Calderon@fda.hhs.gov

Prefix: Dr.

First Name: Greg

Last Name: Hawkins

Degrees: MA MD Ph.D etc:: Ph.D.

Email: Edward.Hawkins@fda.hhs.gov

Company Affiliation: U.S. Food and Drug Administration

Mailing Address: 10903 New Hampshire Ave

Address 2: Building 51, Room 5117

City: Silver Spring

State: MD

Zip/Postal: 20993

Country: United States

Phone: 3017960727

ID: 360
Examining prescription opioid diversion cases and cases involving illicitly manufactured opioids in Canada

Maria Levi-Minzi, Nova Southeastern University, maria.leviminzi@nova.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: The purpose of this study is to compare provincial differences (Manitoba, British Columbia, Quebec and Ontario) of diversion of select prescription (oxycodone and fentanyl products) opioids for the period of 2nd quarter 2016 through 2nd quarter 2018; illicit (nonpharmaceutical fentanyl and heroin) opioid cases were also examined. Methods Data were drawn from the Canada Drug Diversion Program, a systematic countrywide examination of prescription drug diversion. Participants complete a quarterly survey documenting new diversion cases of targeted prescription opioids, and cases involving heroin and nonpharmaceutical fentanyl. Case counts of diversion per quarterly population rate and standard dispensed units were calculated for prescription fentanyl and oxycodone products, and case counts of illicitly trafficked heroin and nonpharmaceutical fentanyl per quarterly population rate were also calculated; rates are scaled per 100,000 population and units, respectively. Results Among prescription products, oxycodone had the highest population rate for diversion in British Columbia in 4Q17 (2.04) and 1Q18 (2.73); for fentanyl, the highest population rate for diversion was found in Ontario (0.11 in 2Q17 and 0.44 in 3Q17). When comparing standard dispensed units, oxycodone was the most frequently diverted opioid in British Columbia, whereas fentanyl was the most commonly diverted opioid in Manitoba. For illicitly trafficked opioids, case counts of diversion per quarterly population rate were highest in British Columbia for nonpharmaceutical fentanyl (ranging from 0.96 through 6.69) and heroin (ranging from 1.03 3.09). Conclusion Case counts of fentanyl diversion per standard dispensed unit were highest in Manitoba despite a higher population rate for diversion in Ontario, suggesting that patterns of diversion may be driven by factors other than drug availability. In addition, for illicit opioids, as compared to other provinces, British Columbia had the highest case counts of diversion per quarterly population rate. Findings provide evidence that collecting information from law enforcement can provide valuable insight into drug markets.

Willing to present orally: Yes

Financial Support: The CCPPS System is supported by subscriptions from pharmaceutical manufacturers for surveillance, research and reporting services. The System is the property of Canadian Consumer Product and Pharmaceutical Safety Inc. which retains exclusive ownership of all data, databases and systems. Subscribers do not participate in data collection or analysis, nor do they have access to the raw data.

Prefix: Mrs.

First Name: Maria

Middle Initial: A.

Last Name: Levi-Minzi

Degrees: MA MD Ph.D etc:: M.A.

Email: maria.leviminzi@nova.edu

Company Affiliation: Nova Southeastern University

Mailing Address: 2 NE 40th Street, Suite 404

City: Miami

State: FL

Zip/Postal: 33137

Country: United States

Phone: 3055712774

Fax: 305-571-8468

Membership Year: 2015

Sponsor: Dr. Steven Kurtz,PhD

ID: 361
Enhancement of a cue-exposure therapeutic approach with an alpha5GABA-A inverse agonist in rhesus monkeys

Tanya Pareek, University of Mississippi Medical Center, tpareek@umc.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Alcohol

Topic: Behavior

Abstract: Aims Treatments exist for alcohol use disorder, but relapse rates remain unacceptably high. Relapse can be precipitated by environmental cues that elicit craving and promote alcohol consumption. Cue-exposure therapy (CET) is designed to weaken the association between alcohol-paired cues and consumption and, ultimately, decrease craving and relapse. We developed a nonhuman primate model of CET and investigated the potential of cognitive-enhancing drugs to augment its efficacy. Methods Subjects were four male rhesus monkeys with histories of ethanol self-administration under conditions in which each opportunity to drink was paired with red cue lights (i.e., alcohol-paired cue). After achieving stable self-administration, extinction sessions occurred during which the contingency between alcohol-paired cues and consumption was reduced by omitting ethanol yet maintaining response-contingent presentations of cue lights. During extinction, monkeys received the alpha5GABA-A inverse agonist RY-23 (0.03 or 0.3 mg/kg), the glycine partial agonist d-cycloserine (DCS; 3 mg/kg) or placebo (saline). A cue-reactivity test occurred four days after extinction (i.e., re-exposure to response-contingent presentations of cue lights in the absence of ethanol) after which self-administration resumed. Repeated measures ANOVAs with Bonferroni t-tests were used to asses significant drug/dose effects compared to placebo. Results RY-23, but not DCS, accelerated extinction compared to placebo. DCS and RY-23 significantly reduced responding during cue reactivity tests indicating a potential decline in cue-induced craving. No drug treatment reliably increased time to reacquire self-administration. Discussion Our findings suggest that CET, with adjunct pharmacotherapy, is effective at reducing cue-induced craving. Unfortunately, other strategies are needed to prevent resumption of alcohol drinking.

Willing to present orally: No

Financial Support: DA011792 (JKR), NS076517 (JMC), MH096463 (JMC), and AA016179 (DMP)

Name of Sponsor (If you are NOT) a CPDD Member: Donna Platt

Email Address of Sponsor : dplatt@umc.edu

Prefix: Ms.

First Name: Tanya

Last Name: Pareek

Degrees: MA MD Ph.D etc:: MS

Email: tpareek@umc.edu

Company Affiliation: University of Mississippi Medical Center

Mailing Address: 533 Woodland Hills Place

City: Jackson

State: MS

Zip/Postal: 39216

Country: United States

Phone: 901-786-4366

ID: 362
Selection into alternative forms of opioid agonist treatment in British Columbia, Canada

Bohdan Nosyk, BC Centre for Excellence in HIV/AIDS, bnosyk@cfenet.ubc.ca

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: AIM: Studies assessing the comparative effectiveness of Methadone (MET) versus Buprenorphine-Naloxone (BNX) in real-world settings are challenging since they are not randomly assigned to people with opioid use disorders (PWOUD). Using linked population-level data for the province of British Columbia (BC), Canada, we aim to summarize opioid agonist treatment (OAT) outcomes and identify determinants of selection into competing forms of OAT. METHODS: We identified the population of PWOUD in BC who received at least one OAT dispensation from 1996-2017. We focused on selection into MET or BNX among all and OAT-naïve PWOUD after BNX was introduced onto the provincial formulary in January 2008, and after it was declared first-line treatment in June 2017. We fit a generalized linear mixed model with logit link function and clustering on both the individual and primary prescribing physician to identify factors (demographic, clinical and prescriber characteristics) associated with receipt of BNX. RESULTS: A total of 49,699 PWOUD experienced 264,535 OAT episodes during the study period, with 152,804 episodes after January 2008 (MET:N=120,517(78.87%); BNX:N=32,287(21.13%)). Having no OAT experience (OR=3.37 [95% Confidence Interval: 3.12-3.65]), younger age (Age 44), male gender (OR=1.16[1.10-1.24]), and indications of mental health conditions (OR=1.32[1.24-1.41]) and chronic pain (OR=1.18[1.11-1.26]), were associated with higher odds of BNX receipt, while receipt of income assistance (OR=0.61[0.58-0.64]) was associated with lower odds of BNX receipt. Adjusting for fixed, unmeasured provider characteristics, providers with < 1 2 years of OAT experience and with higher OAT retention rates were also associated with lower odds of BNX receipt. All these associations were robust after BNX became first-line treatment, except that age and indication of chronic pain were no longer statistically significant. CONCLUSION: We identified both patient and provider characteristics associated with selection into BNX. This information can inform subsequent causal analyses into the comparative effectiveness of these forms of OAT.

Willing to present orally: Yes

Financial Support: Funding: This study was supported by a Health Canada Substance Use and Addictions Program (1819-HQ-000036).

Prefix: Dr.

First Name: Bohdan

Last Name: Nosyk

Degrees: MA MD Ph.D etc:: Ph.D

Email: bnosyk@cfenet.ubc.ca

CC Email: lpearce@cfenet.ubc.ca

Company Affiliation: BC Centre for Excellence in HIV/AIDS

Mailing Address: 2220 Vine street

City: Vancouver

State: BC

Zip/Postal: V6K3K4

Country: Canada

Phone: 604-230-9722

Sponsor: Dr. Jeffrey Samet, PhD and Dr. Richard Rawson

Research Interests: Health Services,Treatment

ID: 363
Exploring the role of family relationships on the decision to enter opioid agonist treatment among people who inject drugs in Ukraine

Ruthanne Marcus, Yale University School of Medicine, ruthanne.marcus@yale.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM: HIV incidence is increasing in Ukraine, primarily due to injection drug use. Although opioid agonist treatment (OAT) for persons who inject drugs (PWID) is the most effective strategy to reduce HIV incidence, it is drastically underutilized in Ukraine. Family and friends can influence OAT scale-up. We analyzed multiple sources of data to better understand the role of family relationships on PWID entry and retention on OAT in Ukraine. METHODS: Three sources of data were analyzed: 1) Focus groups with 199 PWID conducted in five Ukrainian cities to determine barriers and facilitators to OAT entry and retention within an implementation science research framework to scale-up OAT in Ukraine; 2) The BASIS-24, a 24-item psychometric scale that measures patient symptoms across six domains, was administered at OAT admission to 517 persons; and 3) The European Quality Audit of Opioid Treatment (EQUATOR) was completed by 200 PWID on OAT. Results of these data sets were triangulated to improve understanding of OAT scale-up in Ukraine. RESULTS: Focus group data showed that uncertainty and misconceptions about OAT endorsed by "trusted others" prevented many PWID from entering treatment. BASIS 24 scores were equally high in the relationship and substance use domains (2.47 and 2.3 of 4.0). EQUATOR survey results indicate that Ukrainian people report entering treatment "to take better care of my family" at a statistically higher rate than Europeans overall who completed the EQUATOR (58% v 29%; p

Willing to present orally: Yes

Financial Support: National Institute on Drug Abuse (R01 DA033679)

Name of Sponsor (If you are NOT) a CPDD Member: Declan Barry, PhD

Email Address of Sponsor : declan.barry@yale.edu

Prefix: Dr.

First Name: Ruthanne

Last Name: Marcus

Degrees: MA MD Ph.D etc:: PhD, MPH

Email: ruthanne.marcus@yale.edu

Company Affiliation: Yale University School of Medicine

Mailing Address: Department of Internal Medicine

City: New Haven

State: CT

Zip/Postal: 06510

Country: United States

Phone: 2034442621

ID: 364
Extended-release vs. oral naltrexone for alcohol dependence treatment in primary care

Mia Malone, New York University School of Medicine, mia.malone@nyumc.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Treatment

Abstract: Aim Naltrexone is first-line pharmacotherapy for alcohol use disorders (AUD). Oral naltrexone (O-NTX) is under-prescribed in primary care and possibly limited by poor adherence. Monthly injectable extended-release naltrexone (XR-NTX) may improve adherence and good clinical outcomes. Methods This is a randomized, open-label, comparative effectiveness trial of 24 weeks of XR-NTX vs. O-NTX as AUD treatment in primary care at a public hospital in New York City. Adults (>18yo) with AUD randomized to XR-NTX (380mg/month) vs. O-NTX (50mg/day) with Medical Management. Self-reported daily drinking recall informed the primary outcome, a Good Clinical Outcome (GCO) across weeks 5-24, defined as abstinence or moderate drinking and 0-2 days of heavy drinking per month. Results N=237 adults randomized (n=117 XR-NTX; n=120 O-NTX); mean age 48.5 (SD 10.6); 71% male; 54% AA, 21% Hispanic; 41% employed. At baseline, mean AUDIT scores were 24.2 (SD 8.0); mean drinks/day, 9.6 (SD 11.6); 29% abstinent days; 61% heavy drinking days. Retention in treatment was: 64% of monthly XR-NTX injections received; 67% monthly O-NTX refills provided. The primary GCO across weeks 5-24 was reported by 29% XR-NTX and 23% O-NTX ($p = 0.29$); the mean months with a GCO was 2.9 XR-NTX, 2.5 O-NTX ($p = 0.21$). Rates of % days abstinent (70% XR-NTX vs. 71% O-NTX; $p = 0.77$) and % heavy drinking days (20% XR-NTX vs. 16% O-NTX; $p = 0.28$) were similar weeks 1-24. Conclusion Initiation and retention on both forms of naltrexone was robust. Overall, participants reported improved longitudinal drinking outcomes. There was insufficient evidence of any differences in primary and secondary self-reported drinking outcomes between monthly XR-NTX and daily O-NTX. Additional analysis will examine CDT and LFT levels during treatment, and interactions with OPMR1 genotype status.

Willing to present orally: Yes

Financial Support: Supported by NIH/NIAAA R01AA020836.

Prefix: Ms.

First Name: Mia

Last Name: Malone

Degrees: MA MD Ph.D etc:: BA

Email: mia.malone@nyumc.org

CC Email: mia.malone@nyumc.org

Company Affiliation: New York University School of Medicine

Mailing Address: 180 Madison Avenue

Address 2: 17-34A

City: New York

State: NY

Zip/Postal: 10016

Country: United States

Phone: 6465013577

ID: 365
Substance use disorder risk in individuals with autism spectrum disorder

Amy Yule, Partners Health Care, ayule@partners.org

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Other

Other Topic: Psychiatric Co-morbidity

Abstract: Aim: The main aim of this study was to evaluate the risk for developing a substance use disorder (SUD, alcohol or drug abuse or dependence) in individuals with autism spectrum disorder (ASD). Methods: ASD subjects were derived from consecutive referrals to two outpatient psychopharmacology programs at an academic center. Age and sex matched controls and attention deficit hyperactivity disorder (ADHD) comparison subjects were derived from three independent studies of children and adults with and without ADHD using identical assessment methodology. Cox proportional hazard models were used to analyze the prevalence of SUD. Age of onset and duration of SUD was analyzed with linear regression models. Results: Our sample included 280 controls, 202 subjects with ADHD, and 280 subjects with ASD. The average age for the ASD subjects was 19.0 ± 9.6 years. ASD subjects were at decreased risk for developing a SUD compared to ADHD (Hazard ratio (HR)=0.22, p 0.05). Conclusions: SUD begins later in ASD patients. Further research is needed to understand why SUD onsets later in individuals with ASD, and to develop interventions to prevent SUD in ASD patients.

Willing to present orally: Yes

Financial Support: K12DA000357-17

Name of Sponsor (If you are NOT) a CPDD Member: Timothy Wilens

Email Address of Sponsor : twilens@partners.org

Prefix: Dr.

First Name: Amy

Last Name: Yule

Degrees: MA MD Ph.D etc:: MD

Email: ayule@partners.org

Company Affiliation: Partners Health Care

Mailing Address: 55 Fruit Street

Address 2: Yawkey 6A

City: Boston

State: MA

Zip/Postal: 02114

Country: United States

Phone: 8312477674

ID: 366
Evaluating evidence-based treatment for OUD in a US correctional system: Program participant impressions

Rosemarie Martin, Brown University , Rosemarie_Martin@brown.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim: The opioid epidemic and increased risk of overdose among those with recent criminal justice involvement create an urgent need to address opioid use disorder (OUD) within this population. Medication assisted treatment (MAT), while accepted as best practice for treating OUD, has not been adopted in US correctional systems. Discontinuing MAT during incarceration increases post-release overdose risk. In 2016, the Rhode Island Department of Corrections (RIDOC) became the first statewide US correctional system to provide comprehensive MAT. This study explored program participants' perceived barriers and facilitators to MAT engagement during incarceration and post-release. Methods: From October 2016 to August 2018 RIDOC provided MAT to 1904 individuals. We conducted telephone interviews with 214 individuals after release between February 2017 and February 2018. During the discharge planning process, individuals provided a contact phone number and research assistants called participants. Participant responses were entered into Qualtrics. Results: Mean age of participants was 37 and 77% of respondents were male. Surveys were conducted an average of 29 days post-release. At the time of survey, 82% of respondents reported continued MAT. Patients most commonly reported not connecting with treatment and transportation as reasons for treatment disengagement. Commonly reported feedback about RIDOC's program included program helpfulness in transitioning to community care and limiting withdrawal symptoms. Frequently reported concerns were duration between commitment to receiving treatment, dose timing, and staff stigma. Of those receiving MAT at the time of survey, most wanted to continue treatment long-term, although a large portion also considered eventually discontinuing MAT. Conclusion: Reducing overdose risk among criminal justice involved individuals requires promotion of evidence-based practices in this setting. MAT programming in correctional settings is a approach in addressing this risk. Detailed understanding of factors influencing the successes of programs such as these are critical to improvement and dissemination of treatment for OUD.

Willing to present orally: Yes

Financial Support: This research was supported by the State of Rhode Island General Fund

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Damaris Rohsenow

Email Address of Sponsor : damaris_rohsenow@brown.edu

Prefix: Dr.

First Name: Rosemarie

Last Name: Martin

Degrees: MA MD Ph.D etc:: PhD

Email: Rosemarie_Martin@brown.edu

Company Affiliation: Brown University

Mailing Address: Box G - S-5

City: Providence

State: RI

Zip/Postal: 02912

Country: United States

Phone: 4018636656

ID: 367
The impact of expanding opioid agonist therapies on HIV epidemic and mortality in Ukraine: A modeling study

Alexei Zelenev, Yale School of Medicine, alexei.zelenev@yale.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim: Many of the new HIV infections among people who inject drugs (PWID) in Eastern Europe and central Asia occur in Ukraine. Access to opioid agonist therapies (OAT) remains inadequate, as less than 3% of the PWID population have access to OAT. We aimed to assess relative efficiency of the current OAT program across Ukraine's 23 regions, as well project the impact that scaling up opioid agonist therapies is likely to have on the HIV epidemic. Methods: In this modeling study, we developed a linear optimization model in order to estimate efficiency gains that could be made to OAT programs given current procurement of OAT. We also developed a population model of HIV transmission that includes injection and sexual risk. We use the model to analyze the impact of scaling-up OAT on HIV infections and mortality from 2018-2028. Findings: Without additional interventions, HIV prevalence among PWID in Ukraine is projected to increase from 22.5% to 40.9% from 2018-2028. Increasing total procurement of OAT and optimizing dosage are crucial for expanding OAT coverage in each region, as without additional resources, OAT coverage can only be increased from 2.7% to 3.3%. Scaling up OAT to 20% coverage can prevent 39,555 deaths and 31,452 new HIV infections over a ten year period, and reduce HIV prevalence by a fifth. Conclusions: Findings from this study provide important implication for future harm reduction programs targeting people who inject drugs. The results highlight the importance of continuing to scale-up OAT in Ukraine, in combination with providing adequate dosing and promoting retention in care.

Willing to present orally: Yes

Financial Support: Supported by: National Institute on Drug Abuse (RO1 DA033679, K01 DA037826)

Name of Sponsor (If you are NOT) a CPDD Member: Declan Barry

Email Address of Sponsor : declan.barry@yale.edu

Prefix: Dr.

First Name: Alexei

Last Name: Zelenev

Degrees: MA MD Ph.D etc:: PhD

Email: alexei.zelenev@yale.edu

CC Email: paula.dellamura@yale.edu

Company Affiliation: Yale School of Medicine

Mailing Address: 135 College Stree, Suite 323

City: New Haven

State: CT

Zip/Postal: 06510

Country: United States

Phone: 347-526-5197

ID: 368
Towards a comprehensive performance measurement system for opioid use disorders in British Columbia, Canada

Bohdan Nosyk, BC Centre for Excellence in HIV/AIDS, bnosyk@cfenet.ubc.ca

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: AIM: The quality of care for people with opioid use disorder (PWOUD) is rarely assessed, and has taken on a heightened level of importance in the face of a public health emergency in opioid overdose. We aim to develop and validate a set of health system performance measures for PWOUD in British Columbia (BC). METHODS: Five provincial administrative databases and an additional set of databases specific to one of BC's health authorities were used to generate performance measures in four domains: care engagement, compliance to OUD clinical guidelines, integrated care and healthcare utilization. We recruited a panel of local stakeholders and international experts to validate (survey 1) and endorse the measures (survey 2) using a modified 2-stage Delphi process. Respondents endorsed the measures on a 7-point likert scale using information on the construction of the measures, applicable sensitivity analyses, GRADE quality of evidence scores, assessments of face validity, predictive validity and potential unintended consequences of public reporting, as well as perspectives from people with lived experience of OUD. An a priori rule of 70% support for a measure was required for endorsement. RESULTS: Overall, we received n=49 responses from local stakeholders (n=25;51%) and international experts (n=24;49%) to survey 1 (assessing face validity and unintended consequences) and n=44 responses endorsing 36 distinct performance measures (survey 2). From 104 candidate measures, the endorsed measures included a 9-stage cascade of OUD care, 2 measures of OUD clinical guideline compliance, 17 measures of integration and 8 measures of healthcare utilization. CONCLUSION: We identified a number of priorities to improve the quality of care and reduce the public health burden of OUD in BC. These measures can be derived for geographic and clinical subgroups, updated over time and expanded with additional database linkages, providing an ongoing basis for monitoring health system performance.

Willing to present orally: Yes

Financial Support: Funding: This study was supported by a Health Canada Substance Use and Addictions Program (1819-HQ-000036).

Prefix: Dr.

First Name: Bohdan

Last Name: Nosyk

Degrees: MA MD Ph.D etc:: Ph.D

Email: bnosyk@cfenet.ubc.ca

CC Email: lpearce@cfenet.ubc.ca

Company Affiliation: BC Centre for Excellence in HIV/AIDS

Mailing Address: 2220 Vine street

City: Vancouver

State: BC

Zip/Postal: V6K3K4

Country: Canada

Phone: 604-230-9722

Sponsor: Dr. Jeffrey Samet, PhD and Dr. Richard Rawson

Research Interests: Health Services,Treatment

ID: 369
Mortality among a population-based cohort of people with opioid use disorders in British Columbia, Canada

Bohdan Nosyk, BC Centre for Excellence in HIV/AIDS, bnosyk@cfenet.ubc.ca

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: AIM: Mortality risks among opioid-dependent individuals are substantially higher than the general population and have escalated during a widespread and worsening opioid overdose crisis in British Columbia (BC), Canada. While treatment is a critical factor to reduce mortality, low levels of treatment engagement and adherence are common. We quantified mortality rates among treated people with opioid use disorders (PWOUD) and compared them across a range of key factors shaping the opioid overdose crisis in BC. METHODS: We used provincial health administrative databases to construct a population-based cohort of PWOUD in BC from 01/01/1996 to 30/11/2017. We compared all-cause crude mortality rates (CMR) and standardized mortality ratios (SMR) according to period on or off opioid agonist treatment (OAT), medication type, and key dates characterising the overdose crisis in BC. RESULTS: Among 76,926 PWOUD, 13,265 (17.2%) died during follow-up. SMRs were significantly lower during OAT compared to period out of OAT, both overall (4.6 vs. 7.2) and individually for Methadone (2.9 vs. 9.4) and Buprenorphine/Naloxone (4.7 vs. 10.0). During periods out of OAT, all-cause mortality increased significantly after the announcement of a public health emergency in BC (April 14 2016; SMRbefore:6.0; SMRafter:7.5; CMR ratio:1.30, 95% confidence interval (CI):1.23,1.37). During OAT, the mortality rate did not change over time. All-cause mortality was highest among people with other concurrent substance use disorders (SMR:9.1(8.7,9.5)), in the first week following discontinuation from OAT (SMR:141.5 at ≤3 days and SMR:27.1 at 4-7 days), in the year following the first record of OUD (SMR:12.6, 95% CI:12.2,13.1), and after first drug-related hospitalization (SMR:14.9(14.3,15.5)). CONCLUSION: As mortality risks escalate within the current opioid overdose crisis, these findings confirm the importance of early treatment intervention and adherence for individuals presenting to health care services for OUD and other substance use disorders.

Willing to present orally: Yes

Financial Support: Funding: This study was supported by a Health Canada Substance Use and Addictions Program (1819-HQ-000036).

Prefix: Dr.

First Name: Bohdan

Last Name: Nosyk

Degrees: MA MD Ph.D etc:: Ph.D

Email: bnosyk@cfenet.ubc.ca

CC Email: lpearce@cfenet.ubc.ca

Company Affiliation: BC Centre for Excellence in HIV/AIDS

Mailing Address: 2220 Vine street

City: Vancouver

State: BC

Zip/Postal: V6K3K4

Country: Canada

Phone: 604-230-9722

Sponsor: Dr. Jeffrey Samet, PhD and Dr. Richard Rawson

Research Interests: Health Services,Treatment

ID: 370
Acquisition of remifentanil self-administration: Assessing the role of sex and stress exposure in male and female rats

Ryan Lacy, Franklin and Marshall College, lacy@fandm.edu

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Sex Differences

Other Topic: Stress

Abstract: Background Amidst the ongoing opioid abuse crisis is a disproportionate rise in female opioid users and subsequently deaths. Over the past 5 years, overdose deaths in females have doubled compared to half that in males. Thus, studying both sexes will be critical to understand this growing epidemic. Additionally, the role of stress and its possible interaction with sex on the self-administration of opioids (e.g., remifentanil) is important given the high levels of stress-related trauma experienced by females, relative to males. The aim of this study was to examine the acquisition of remifentanil in male and female rats following histories of stress exposure during adolescence. Methods Sixty-six Long-Evans rats were assigned to either the stress-exposed or control group upon arrival at postnatal day (PND) 21. When animals reached adolescence (PND 28-45), stress-exposed rats were subjected to a mild, subchronic stress paradigm which included exposure to 300 nmol of trimethylthiazoline (synthetic fox feces) and 1-hour physical restraint, alternatingly, for eight days. After three weeks of stress induction and anxiety assessment, rats were implanted with intravenous catheters in order to self-administer remifentanil. For each group, the acquisition of remifentanil self-administration was measured over 15 days with no prior operant training. Results Regardless of stress condition, female rats were faster to acquire remifentanil self-administration and emitted more active lever presses than males. Among the stress-exposed animals, animals that exhibited moderate levels of anxiety following stress induction self-administered at higher rates than rats that exhibited high or low stress responsivity. Conclusion These findings indicate that sex differences are evident in remifentanil self-administration and suggests that gonadal hormones mediate the reinforcing efficacy of opioids. Additionally, these results provide new evidence that differential stress responses following sub-chronic stress may affect susceptibility to opioids self-administration, specifically during adolescence which may represent a unique period of vulnerability.

Willing to present orally: No

Financial Support: N/A

Prefix: Dr.

First Name: Ryan

Middle Initial: T.

Last Name: Lacy

Degrees: MA MD Ph.D etc:: Ph.D.

Email: lacy@fandm.edu

Company Affiliation: Franklin and Marshall College

Mailing Address: Department of Psychology

Address 2: P.O. Box 3003

City: Lancaster

State: PA

Zip/Postal: 17602

Country: United States

Phone: 717-358-4373

Membership Year: 2014

Sponsor: Dr. Mark Smith,Ph.D. and Dr. William Stoops

Travel Award: W&G Award 2017

Research Interests: Behavioral Pharmacology,Toxicology/Teratology

Date of Membership: 2016

ID: 371
Abuse of pregabalin and gabapentin in the US

Kofi Asomaning, Pfizer Inc, Georgina.Bowden@EnvisionPharmaGroup.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Anticonvulsants / Analgesics

Topic: Other

Other Topic: Abuse

Abstract: Introduction: Abuse of prescription opioids has been decreasing in the US since 2011 while abuse of other prescription drugs such as anticonvulsants is increasing. Illegal activities such as abuse are underreported due to stigma and potential legal consequences. Aim: To evaluate abuse of pregabalin, gabapentin, and prescription opioids in the US using four perspectives. Methods: National estimates of prescription drug abuse were obtained from 1) Researched Abuse, Diversion and Addiction-Related Surveillance (RADARS) System Survey of Non-Medical Use of Prescription Drugs (NMURx) Program, a confidential and anonymous web-based survey providing population-based estimates; 2) RADARS System Treatment Center Programs Combined, surveys patients entering treatment for opioid use disorder; 3) National Poison Data System (NPDS), records cases received by poison centers; 4) RADARS web monitoring program, descriptive System Web Monitoring Program providing internet surveillance. Descriptive analyses were performed. Results: Abuse rates are provided in table. The route of abuse was overwhelmingly oral in all programs for pregabalin and gabapentin; injection was rare. Poison center data on rates of abuse trended upwards numerically for both drugs with gabapentin having a steeper slope. Web monitoring identified abuse of both drugs with more posts for gabapentin. Conclusions: Pregabalin and gabapentin are abused, but at rates 6X-56X less frequent-than for opioid analgesics. Gabapentin is more frequently abused, however, rates of abuse are increasing for both drugs with the route of abuse being primarily oral. Opioid analgesics are abused much more frequently and by oral, nasal and injection routes. Drug NMURx Lifetime Prevalence 2017Q3 % (95% CI) Treatment Centers Programs Combined Past Month Abuse Rate per 100,000 population 2017Q3 – 2017Q4 (95% CI) NPDS Abuse Exposure Rate per 100,000 population 2017Q3 – 2017Q4 (95% CI) Gabapentin 0.4 (0.32, 0.47) 0.121 (0.110, 0.134) 0.062 (0.060, 0.064) Pregabalin 0.4 (0.36, 0.52) 0.014 (0.010, 0.019) 0.011 (0.011, 0.012) Opioid Analgesics 5.3 (5.08, 5.61) 0.787 (0.758, 0.818) 0.396 (0.392, 0.401)

Willing to present orally: Yes

Financial Support: This study was funded by Pfizer Inc

Prefix: Dr.

First Name: Kofi

Last Name: Asomaning

Degrees: MA MD Ph.D etc:: MD

Email: Georgina.Bowden@EnvisionPharmaGroup.com

CC Email: kofi.Asomaning@pfizer.com

Company Affiliation: Pfizer Inc

Mailing Address: 235 East 42nd Street

City: New York

State: NY

Zip/Postal: 10045

Country: United States

Phone: 2127332323

ID: 372
Chronic cannabinoid treatment affects discrimination learning in adolescent nonhuman primates

Sarah Withey, McLean Hospital, Harvard Medical School, swithey@mclean.harvard.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Marijuana/Cannabinoids

Topic: Behavior

Abstract: Aim: Marijuana use is expected to increase with recent and pending changes in its legal and medical status. Adolescent marijuana use is of particular concern because of its association with cognitive impairments during a critical stage of neurodevelopment. This study investigates the effects of chronic exposure to Δ9-tetrahydrocanabinol (THC) or THC combined with cannabidiol (CBD) on a measure of cognitive function (i.e. discrimination learning) in adolescent squirrel monkeys. Methods: Subjects were treated daily with vehicle, THC (1mg/kg) or THC (1mg/kg) + CBD (3mg/kg). One hour after treatment, we examined the effects of treatment on learning, using a touch-based stimulus-discrimination task. Each session began with concurrent presentation of two 7 x 7 cm digital photographs, each in a different randomly selected quadrant of the screen. A response on one stimulus (S+) initiated delivery of a food reward, followed by a 10-second blackout. A response on the other stimulus (S-) initiated the 10-sec blackout without food reward. The same two stimuli were presented for 200 trials each day until S+ responses were produced in 9 of 10 consecutive trials. Once the subject achieved mastery a new S+/S- pair was introduced on the subsequent session. Results: Preliminary data from the first 6 S+/S- stimulus pairs indicate a significant effect of treatment (THC or THC+CBD vs vehicle control). The average number of trials to master the first discrimination (S+/S- pair) was 88.8±32.8 (vehicle), 302.8±123.0 (THC) and 362.3±170.4 (THC+CBD). The number of trials to mastery decreased across consecutive S+/S- pairs for all groups. By stimulus pair 6, the average trials to mastery were 28.5±7.2 (vehicle), 112±76.3 (THC) and 125.5±86.7 (THC+CBD), indicative of a persistent drug effect. Conclusion: Ongoing studies suggest that daily treatment with either THC or THC + CBD disrupts mastery of a cognitive task requiring the development of a learning set to facilitate stimulus discrimination.

Willing to present orally: Yes

Financial Support: Work supported by NIH funding (DA042178)

Name of Sponsor (If you are NOT) a CPDD Member: Bertha Madras

Email Address of Sponsor : BMADRAS@PARTNERS.ORG

Prefix: Dr.

First Name: Sarah

Middle Initial: L

Last Name: Withey

Degrees: MA MD Ph.D etc:: Ph.D

Email: swithey@mclean.harvard.edu

Company Affiliation: McLean Hospital, Harvard Medical School

Mailing Address: McLean Hospital, Oaks Building

Address 2: 115 Mill Street

City: Belmont

State: MA

Zip/Postal: 02478

Country: United States

Phone: 6178553149

Biography: https://www.mcleanhospital.org/biography/sarah-withey

ID: 373
Fentanyl use and perceptions of suicidality: "You either wake up and keep going, or you die"

Christine Gunn, Boston University School of Medicine, Christine.Gunn@bmc.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Other

Other Topic: risk perception

Abstract: AIM: Few people who use drugs report changing opioid-seeking behaviors because of fentanyl, despite understanding that the rapid increase in overdose deaths are related to its presence. Some research characterizes extreme risk-taking behaviors, like fentanyl use, as a form of passive suicidality. This analysis sought to characterize perceptions of how fentanyl use and risk-taking behaviors relate to suicidality. METHODS: We purposively sampled men and women in Boston ages 18-25 or 35+ who reported using fentanyl in the past year. Open-ended interviews discussed fentanyl use, harm reduction behaviors, and discussions people had about fentanyl-related risks and overdose. We used inductive coding to identify emergent themes related to how men and women across age categories characterized their fentanyl use and related ideas of suicide to these behaviors. RESULTS: Twenty participants were interviewed, equally sampled across age and gender categories. Nineteen reported a prior overdose. Participants characterized their behavior as "reckless, but not suicidal." Some young adults separated risk-taking from concerns about personal survival: "That whole personal part of myself just kind of is no longer relevant [while using]". Simultaneously, they affirmed a desire to survive: "And if I die it'll be like a whole lifetime of missed opportunities." For many, the risk of death seemed more remote than anxieties about income, housing, and family relationships. Older participants expressed death indifference, but did not acknowledge suicidality: "I wasn't trying to kill myself, but I'm not scared if anything would happen. I'm not suicidal or any of that." CONCLUSION: Extreme risk-taking with death indifference is not characterized as suicidality by people using fentanyl with overdose experience. While acknowledging the risk of death, participants were future-oriented. Better understanding of how fentanyl use, risk taking, death indifference, and suicidality interact may inform interventions aimed at increasing harm reduction behaviors and engagement in treatment.

Willing to present orally: Yes

Financial Support: Supported by the Boston University Clinical and Translational Science Institute (1UL1TR001430) and the National Institute on Drug Abuse (K23DA044324).

Name of Sponsor (If you are NOT) a CPDD Member: Alexander Walley

Email Address of Sponsor : Alexander.Walley@bmc.org

Prefix: Dr.

First Name: Christine

Middle Initial: M

Last Name: Gunn

Degrees: MA MD Ph.D etc:: PhD

Email: Christine.Gunn@bmc.org

Company Affiliation: Boston University School of Medicine

Mailing Address: 801 Massachusetts Avenue

Address 2: First Floor, Women's Health

City: Boston

State: MA

Zip/Postal: 02118

Country: United States

Phone: 617-414-1993

Fax: 617-638-8096

ID: 374
Residual impact of heavy recreational marijuana use without acute intoxication on driving performance

Mary Dahlgren, McLean Hospital/Harvard Medical School, dahlgren@mclean.harvard.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Other

Other Topic: Cognitive Function

Abstract: AIM Evidence suggests that recent marijuana (MJ) use and higher levels of MJ metabolites are associated with impaired driving. Research has also indicated that heavy MJ use is associated with residual cognitive impairment even without acute intoxication. The current study hypothesized that non-intoxicated, heavy MJ users would demonstrate poorer performance on a driving simulator relative to non-users, and earlier age of MJ onset would be related to poorer performance. METHODS MJ users (n = 26) who used ≥5 out of the last 7 days, reported ≥1,500 lifetime uses, and tested positive for urinary cannabinoids, were compared to non-using healthy control participants (HC, n = 16) on a driving simulator program (STISIM Drive). At the time of testing, MJ users were abstinent for ≥12 hours and not acutely intoxicated. In order to assess the potential impact of age of MJ onset, MJ users with early onset (regular use age < 1 6) and those with late onset (regular use age ≥16) were compared to HCs. RESULTS All MJ users exhibited poorer driving performance with more pedestrian collisions (p = .04), fewer stops at red lights (p = .04), more speed exceedances (p = .02), and greater percentage of time spent over the speed limit (p = .04) relative to HCs. When the MJ-using group was divided into early and late age of MJ onset, the early MJ onset group demonstrated significantly more missed stop signs, fewer stops at red lights, more speed exceedances, and greater percent time spent over the speed limit (all ps = .03) relative to HC participants. No significant differences were detected between the HC and late onset groups. CONCLUSION These data suggest that heavy MJ users, particularly those with early onset of regular MJ use, demonstrate impaired driving even when not acutely intoxicated. Future studies should investigate the link between behaviors associated with early MJ use (e.g., impulsivity, risk-taking) and their impact on cognition.

Willing to present orally: Yes

Financial Support: NIDA 5R21-DA021241 and NIDA 1R01-DA032646 awarded to Staci Gruber; McLean Hospital Rossano Mind, Brain, and Behavior Pre-Doctoral Fellowship awarded to Mary Kathryn Dahlgren; and private donations to the Marijuana Investigations for Neuroscientific Discovery (MIND) Program

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Staci Gruber

Email Address of Sponsor : gruber@mclean.harvard.edu

Prefix: Dr.

First Name: Mary

Middle Initial: K

Last Name: Dahlgren

Degrees: MA MD Ph.D etc:: MS, Ph.D.

Email: dahlgren@mclean.harvard.edu

Company Affiliation: McLean Hospital/Harvard Medical School

Mailing Address: 115 Mill Street

City: Belmont

State: MA

Zip/Postal: 02478

Country: United States

Phone: 617-855-2541

ID: 375
Parental exposure to Δ9-tetrahydrocannabinol fails to impact cocaine responsivity in offspring

Briana Hempel, The American University, bg0767a@student.american.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Marijuana/Cannabinoids

Topic: Behavior

Abstract: AIM An emerging area of preclinical research has investigated whether drug use in parents prior to conception influences drug responsivity in their offspring. In one such report, female rats administered THC during adolescence produced male offspring with decreased sensitivity to the rewarding properties of d-amphetamine. The present experiment extended these findings by examining the effects of an adolescent THC history in dams and sires on cocaine-induced locomotor activity in their offspring. It was hypothesized that such a history would sensitize progeny to cocaine-induced hyperactivity. METHODS On PND 28-49, male (n = 14) and female (n = 14) Sprague Dawley rats were administered 1.5 mg/kg THC or vehicle IP every 3rd day. The adolescents aged to adulthood and were bred. Adult THC (n = 25; 9 M, 16 F) and vehicle (n = 29; 16 M, 13 F) offspring were placed (on PND 69) in activity chambers for 1 h with no injections (baseline day). On the following 7 days, they received 0 or 15 mg/kg cocaine IP and were again placed in the chambers for 1 h. After 7 days of drug abstinence, a cocaine challenge (10 mg/kg) was given to all subjects and locomotor activity (and its sensitization) assessed. RESULTS A repeated measures ANOVA on locomotor activity revealed no main effect of parental history on Days 1-7 ($F = 0.353$, $p = 0.556$). Similarly, there was no main effect of parental history during the cocaine challenge using a one-way ANOVA ($F = 1.832$, $p = 0.183$). A significant difference emerged between groups previously exposed to cocaine or saline on the challenge day ($F = 26.822$, $p < 0.001$), indicating cocaine-induced locomotor sensitization. No sex differences were observed. CONCLUSION These findings suggest that exposure to THC has no effect on cocaine-induced motor activity or its sensitization in the progeny of rats exposed to THC as adolescents.

Willing to present orally: No

Financial Support: This work was supported by internal funding at American University. The Center for Behavioral Neuroscience summer research award and College of Arts and Sciences graduate student research award.

Prefix: Mrs.

First Name: Briana

Middle Initial: H.

Last Name: Hempel

Degrees: MA MD Ph.D etc:: MA

Email: bg0767a@student.american.edu

CC Email: bg0767a@student.american.edu

Company Affiliation: The American University

Mailing Address: 4400 Massachusetts Avenue

City: Washington

State: DC

Zip/Postal: 20016

Country: United States

Phone: (301) 467-7996

Membership Year: 2017

Sponsor: Dr. Anthony Riley, PhD

Research Interests: Behavioral Pharmacology,Neurobiology

ID: 376
Poor inhibitory control predicts positive, stimulant-like subjective response to alcohol

Jessica Weafer, University of Chicago, jweafer@uchicago.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Behavior

Abstract: AIM: Poor inhibitory control is a known risk factor for drug and alcohol use disorders. Evidence from both animal and human studies suggests that this increased risk could be due in part to greater sensitivity to drug reinforcement. In line with this, we recently showed that individuals with poor inhibitory control report greater euphoria and stimulation following a single dose of amphetamine. Here we tested the degree to which these findings generalize to another drug of abuse, alcohol. METHODS: Participants (n=58) completed the stop signal task to assess inhibitory control. They then attended four experimental sessions in which they received alcohol (0.8 g/kg, oral) or placebo, in alternating order, and completed the Biphasic Alcohol Effects Scale to assess alcohol-induced stimulation and sedation at 30 minute intervals over 2.5 hours. RESULTS: Linear mixed effects models showed that longer stop signal reaction time (indicating poor inhibitory control) was associated with greater stimulation ($t = 1.9$, $p = 0.05$) and lesser sedation ($t = 2.1$, $p = 0.03$) following alcohol compared to placebo. CONCLUSION: Individuals with poor response inhibition experienced more positive subjective responses to a moderate dose of alcohol. These results extend our previous findings with inhibition and response to amphetamine, and suggest that inhibition and reward processes are closely linked. It will be important for future studies to determine neurobiological factors underlying this association. Identification of behavioral and neurobiological mechanisms linking inhibition and responses to alcohol would inform potential treatment and prevention efforts aimed at simultaneously improving behavioral control and dampening subjective responses to alcohol.

Willing to present orally: No

Financial Support: Research supported by NIDA grants R21DA037642 and R01DA002812 (HdW) and NIAAA grant K01AA024519 (JW).

Prefix: Dr.

First Name: Jessica

Last Name: Weafer

Degrees: MA MD Ph.D etc:: PhD

Email: jweafer@uchicago.edu

Company Affiliation: University of Chicago

Mailing Address: 5841 S. Maryland Avenue, MC3077

City: Chicago

State: IL

Zip/Postal: 60637

Country: United States

Phone: 773-702-5833

Fax: 702-834-7698

Membership Year: 2014

Sponsor: Dr. Harriet de Wit, Ph.D. and Mark T. Fillmore, PhD

Research Interests: Behavioral Pharmacology,Neurobiology

Date of Membership: 10/1/2016

ID: 377
Combined substance use and HIV risk reduction intervention reduces depressive symptoms in rural African American female adolescents

Solangia Engler, Texas A&M University, solangia.engler@tamu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Adolescent

Abstract: Abstract: Aim: Rural African American (AA) youth lack access to drug and sexual risk taking prevention programs available in urban areas. Sisters Informing, Healing, Living, and Empowering (SIHLE) is a program that was created to meet the needs of at-risk AA female adolescents by integrating effective substance use disorder prevention strategies into an existing evidence-based HIV risk reduction program. Depression is associated with alcohol use disorders in adolescents and is a precursor to alcohol use disorders later in life. The SIHLE prevention program incorporates evidence-based therapeutic models that may be effective, in part, by decreasing depressive symptoms. Methods: Twenty-Five AA rural adolescent females participating in the 12-week SIHLE intervention program provided self-report data that assessed both alcohol use and depressive symptoms at baseline (pre-intervention) and immediately after completing the program (post-intervention). The self-report measures administered included the Alcohol Use Disorders Identification Test (AUDIT) and the Patient Health Questionnaire (PHQ-9). Outcomes focused on changes in substance use and depressive symptoms between pre-intervention and post-intervention. Results: Although no differences in alcohol use were reported (pre-intervention: $M = 9.48$, $SD = 1.94$, post-intervention: $M = 9.60$, $SD = 1.04$; $t(24) = -.37$, $p = .714$), depressive symptoms were significantly reduced (pre-intervention: $M = 7.20$, $SD = 5.83$, post-intervention: $M = 3.52$, $SD = 3.39$; $t(24) = 3.33$, $p = .003$). Conclusion: The current study demonstrates that the 12-week SMIHE intervention program effectively reduces depressive symptoms in rural AA females directly after program completion. Due to the link between alcohol use and depression, a follow-up study assessing alcohol use after a greater time has elapsed (>12 weeks) may provide evidence that the SMIHE program also effectively reduces alcohol use, though at a slower rate.

Willing to present orally: Yes

Financial Support: Sherecce Fields, PhD

Name of Sponsor (If you are NOT) a CPDD Member: Sherecce Fields, PhD

Email Address of Sponsor : safields@tamu.edu

Prefix: Ms.

First Name: Solangia

Last Name: Engler

Degrees: MA MD Ph.D etc:: M.S.

Email: solangia.engler@tamu.edu

Company Affiliation: Texas A&M University

Mailing Address: 304 Bolton Ave.

City: College Station

State: Texas

Zip/Postal: 77840

Country: United States

Phone: 2108189427

ID: 378
Use of tramadol for long-term treatment of opioid dependence in resource poor settings with regulatory hurdles for obtaining OST

Mohit Varshney, DM Addiction psychiatry resident , drmohitvarshney23@hotmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim: Existing opioid substitution therapies have certain limitations, which necessitate the exploration of alternative options for maintenance of patients with opioid use disorders; especially in countries like India where the number of centers (providing OST) are limited. This becomes important as there are various regulatory and logistic hurdles for clients in India to obtain OST in the form of Buprenorphine or Methadone. The present study presents the experience of utilization of tramadol for long-term maintenance treatment of patients with opioid dependence. Methods: This cross-sectional observational study used a structured interview to gather data. Patients with opioid dependence who received tramadol for a period of more than 6 months were recruited. Outcome was assessed in terms of abstinence while being on tramadol. Results: One hundred and two participants were recruited in the study. The mean age of the sample was 41.3 years and all were males. Abstinence to extraneous opioids was reported by 58.8% of the sample. The median dose of oral tramadol at which abstinence was achieved was 350mg/day. Users of natural opioids (raw opium or poppy husk) at the time of treatment seeking had higher rates of achieving abstinence as compared to Heroin and prescription opioid (PO) users. Conclusion: Tramadol may be a possible alternative option for the maintenance treatment of opioid dependence in selected individuals, especially in situations where logistics and regulatory constraints limit the use of other opioid substitution agents. This can help expand the repertoire of options available for management.

Willing to present orally: Yes

Financial Support: Currently none.

Name of Sponsor (If you are NOT) a CPDD Member: Prof Raka Jain

Email Address of Sponsor : rakajain2009@gmail.com

Prefix: Dr.

First Name: Mohit

Middle Initial: Kumar

Last Name: Varshney

Degrees: MA MD Ph.D etc:: MD

Email: drmohitvarshney23@hotmail.com

Company Affiliation: DM Addiction psychiatry resident

Mailing Address: 4096, 4th Floor Teaching Block, AIIMS

City: New Delhi

State: De

Zip/Postal: 110029

Country: India

Phone: 9999186369

ID: 379
Sex-specific neurobiological differences in substance addiction: Phase 2 of an educational pilot program for the next generation STEM workforce

Philip Vieira, CSU Dominguez Hills, pvieira@csudh.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: All drug categories included in educational pilot

Topic: Sex Differences

Abstract: AIM California State University Dominguez Hills (CSUDH) is located in central Los Angeles county, a hotspot for drug abuse due to a variety of factors, including a close proximity with the Mexico border, an abundance of transportation facilities to support trafficking, and a substantial population of several at-risk groups. While graduates from CSUDH often go on to work in the community, these students do not have opportunities to learn about factors leading to substance addiction. The aim of this program is to provide courses which will train students on the latest addiction prevention and treatment research. Phase 2 of this pilot course included sex-specific and neurobiological corollaries to drug dependence. METHODS During the 2016-2020 academic years, 2 pilot courses have been offered to junior/senior undergraduate students. Courses make use of evidence-based active learning strategies and include high impact practices to increase student interest and persistence to complete degrees in STEM. Students worked individually and in small groups to prepare discussions on the neurobiology of addiction, following several original and secondary literature sources, including Michael Kuhar's The Addicted Brain (2011), peer-reviewed publications and published abstracts from the CPDD conferences from 2014-2018. Discussions with addiction researchers were also included. Students submitted research proposals to address gaps in the neuropharmacology literature, focusing on sex-specific studies. Survey data were collected before and after course completion to assess learning outcomes and career trajectories for these next generation STEM workforce students. RESULTS Survey data indicates students met program learning outcomes, including understanding of sex-specific differences in drug addiction. Students also showed favorable attitudes toward pursuing clinical work or graduate studies in addiction research. CONCLUSION Students need earlier exposure to the neurobiology of drug abuse to support their success in this course. We will therefore offer a psychopharmacology course to students prior to taking this course.

Willing to present orally: Yes

Financial Support: Start-up funds

Prefix: Dr.

First Name: Philip

Last Name: Vieira

Degrees: MA MD Ph.D etc:: Ph.D.

Email: pvieira@csudh.edu

Company Affiliation: CSU Dominguez Hills

Mailing Address: 1000 E. Victoria Ave

Address 2: Dept of Psychology

City: Carson

State: CA

Zip/Postal: 90747-0001

Country: United States

Phone: 3102433271

Membership Year: 2016

Sponsor: Dr. Todd Kippin

Travel Award: W&G Award 2017

Research Interests: Epidemiology,Molecular Biology

ID: 380
Comorbid PTSD among women with opioid use disorder: Prevalence of symptoms and utilization in trauma-focused treatment

Angela Moreland, Medical University of South Carolina, moreland@musc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIMS Lifetime prevalence of posttraumatic stress disorder (PTSD) is 50% among individuals with OUD compared to 7% of the general population (Smith et al., 2016). Individuals with comorbid OUD and PTSD have a worse course of illness, poorer physical health, and overall functioning, elevated comorbid substance use, and increased risk of suicide (Shorter et al., 2015). Medication assisted treatment (MAT) is the standard of care for OUD (Volkow et al., 2014), although few MAT models address co-occurring psychosocial disorders such as PTSD. This is problematic, as without concurrent treatment for PTSD, individuals with OUD display higher rates of opioid use and overdose and increased risk for relapse (Fareed ed al., 2014). METHODS To further research in this area, the study examined rates of PTSD and comorbid mental health concerns, as well as engagement in psychosocial treatment to specifically address PTSD, among a sample of 50 women enrolled in MAT for OUD. RESULTS Results demonstrated that 45% of women met criteria for current diagnosis of PTSD, 67% for moderate/severe depression, and 26% reported current suicidal ideation. Of those who either reported trauma exposure or met criteria for PTSD, only 12% were currently in treatment and 28% had ever received treatment to specifically address the symptoms of trauma. CONCLUSIONS Findings demonstrate that, while a significant percentage of women on MAT for OUD endorse a current diagnosis of PTSD or related symptoms, a large proportion of women (59%) have never received psychosocial treatment alongside MAT to specifically address these symptoms. This is extremely alarming given that the overlapping neurobiology of PTSD and OUD perpetuate the symptoms of both disorders. Next steps include testing the effects of MAT augmented by trauma-specific PTSD treatments to decrease OUD symptoms, as well as collaboration with researchers to further investigate the impact of psychosocial treatments alongside MAT.

Willing to present orally: Yes

Financial Support: This study was supported by grant 5K12DA031794-03 to support the first author.

Prefix: Dr.

First Name: Angela

Last Name: Moreland

Degrees: MA MD Ph.D etc:: PhD

Email: moreland@musc.edu

CC Email: daviesf@musc.edu

Company Affiliation: Medical University of South Carolina

Mailing Address: 67 President Street

City: Charleston

State: SC

Zip/Postal: 29425

Country: United States

Phone: 843-792-2945

Membership Year: 2016

Sponsor: Dr. Aimee McRae-Clark, Pharm D and Dr. Carla K. Danielson, PhD

Research Interests: Prevention,Treatment

ID: 381
Unintentional drug overdose: Is more frequent use of non-prescribed buprenorphine associated with lower risk of overdose

Robert Carlson, Wright State University, robert.carlson@wright.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Other

Other Topic: unintentional drug overdose

Abstract: AIM: Unintentional drug overdoses have reached epidemic levels in the US. This study tests the hypothesis that people who have used non-prescribed buprenorphine (NPB) more frequently in the past six months will be less likely to experience a drug overdose. METHODS: 360 participants over age 18 years with opioid use disorder who reported use of NPB products in the last 6 months, were recruited from the Dayton, OH, area using modified RDS methods. Participants completed a structured interview, including 6-month timeline follow-back (n=359), after informed consent. Logistic regression was used to test the association between (log-transformed) frequency of NPB use and overdose in the previous 6 months, adjusted for confounding due to demographics, previous overdose, length of illicit opioid use, reason for NPB use, heroin/fentanyl injection and preference, substance use treatment, chronic pain, psychiatric comorbidity, and (log-transformed) frequency of other (non-opioid) drug use. RESULTS: Almost 89% were white, 50.7% were male, and 77.7% had high school or greater education. About 55% were homeless in the past six months. Over 27% (n=99) reported experiencing an overdose. Greater frequency of NPB use (AOR=0.81, 95% CI=0.66, 0.99) was associated with lower risk of overdose ($p < .05$). Experiencing a previous overdose (AOR=2.24, 95% CI=1.25, 4.13); injection as the most common route of administration of heroin/fentanyl in the past 6 months (AOR=2.63, 95% CI=1.40, 5.14); and frequency of methamphetamine use in the past 6 months (AOR=1.18, 95% CI=1.05, 1.33) were associated with increased risk of overdose. The study was approved by the Wright State University IRB. CONCLUSION: The study supports our hypothesis that greater frequency of NPB use is associated with lower risk of drug overdose. The findings can help inform intervention and policy responses.

Willing to present orally: Yes

Financial Support: NIDA R01DA040811

Prefix: Dr.

First Name: Robert

Middle Initial: G.

Last Name: Carlson

Degrees: MA MD Ph.D etc:: Ph.D.

Email: robert.carlson@wright.edu

Company Affiliation: Wright State University

Contact Title: Professor

Mailing Address: 3171 Research Park Blvd, Suite 124

City: Kettering

State: OH

Zip/Postal: 45420

Country: United States

Phone: (937) 775-1414

Fax: 937-775-1490

Membership Year: 2004

Sponsor: Chris-Ellyn Johanson, Ph.D. and Carol Boyd, Ph.D.

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 382
Cannabis and alcohol co-use in a pharmacotherapy tobacco treatment trial for adolescent and emerging adult smokers

Erin McClure, Medical University of South Carolina, mccluree@musc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Other Drug Category: Cannabis and alcohol

Topic: Treatment

Abstract: Aim: The co-use of tobacco, cannabis, and alcohol among youth is common. Co-use may lead to: 1) reduced likelihood of cessation for one substance, and/or 2) compensatory (i.e., increased) use of the non-treated substance during a quit attempt. However, co-use data are typically limited by infrequent or inadequate collection during trials. As such, we conducted a secondary analysis of a youth tobacco cessation trial to: 1) examine changes in cannabis and alcohol use during the trial, and 2) evaluate the impact of co-use on tobacco cessation at the end of treatment (EOT). Methods: The parent study was a 12-week, randomized clinical trial of varenicline for tobacco cessation in treatment-seeking youth cigarette smokers (ages 14-21). Daily tobacco, cannabis, and alcohol use data were collected via daily dairies. Results: Among this sample (Mean age=19; 40% female; 76% White), 59% used cannabis and 79% used alcohol. Increases in cigarettes per day during the trial were associated with higher probability of drinking (p=0.03), but this did not hold for cannabis (p=0.97). At EOT, cannabis users had numerically lower rates of tobacco abstinence compared to tobacco-only users, though this difference was not statistically significant (12% vs. 25%; p=0.09). Those using alcohol had similar tobacco abstinence rates compared to tobacco-only users at EOT (18% vs. 16%; p=0.94). Conclusions: Compensatory substance use did not appear to occur during the tobacco trial, though results showed associations between the occurrence of smoking and alcohol consumption, which is consistent with the literature. Inconsistent with the literature, however, was that alcohol users did not differ in tobacco abstinence, while cannabis co-users trended towards poorer cessation. Future studies should explore the integration of substance co-use information into youth tobacco treatment, which may need to be tailored specifically by substance type in order to improve rates of cessation and avoid compensatory use.

Willing to present orally: Yes

Financial Support: This study was supported by a grant from the National Institute on Drug Abuse (NIDA U01 DA031779). Additional funding and support came from the National Center for Advancing Translational Sciences (NCATS UL1TR001450) and the National Institute on Drug Abuse (K01 DA036739). Study medication and matched placebo was provided by Pfizer, Inc. No other funding or support from Pfizer, Inc. was provided.

Prefix: Dr.

First Name: Erin

Middle Initial: A

Last Name: McClure

Degrees: MA MD Ph.D etc:: Ph.D.

Email: mccluree@musc.edu

Company Affiliation: Medical University of South Carolina

Contact Title: Postdoctoral Fellow

Mailing Address: 67 President St.

Address 2: MSC 861

City: Charleston

State: SC

Zip/Postal: 29425

Country: United States

Phone: 8437927192

Membership Year: 2010

Sponsor: Dr. Maxine Stitzer, Dr. Susan Stone and Dr. Sudie Back

Travel Award: 2013

Research Interests: Behavioral Pharmacology,Treatment

ID: 383
ß-arrestin 2 single nucleotide polymorphism associated with long term consequences of opioid use

Klevis Karavidha, Wayne State University, fo2096@wayne.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Genetics

Abstract: Aims: ß-arrestin 2 is a ubiquitously expressed protein that regulates G-protein-coupled receptors (GPCRs), like the mu-opioid receptor, through desensitization and internalization of these receptors. Given the role of this protein in opioid addictionand GPCR function, it is imperative to study genetic polymorphisms that may differentially affect chronic opioid-use behaviors. This study focused on phenotypic differences among African Americans carrying different variations of the exonic single nucleotide polymorphism rs1045280 in the ß-arrestin 2 gene (ARRB2). Methods: 143 non-treatment seeking, opioid-dependent African American participants were genotyped for ARRB2 variation. We examined genetic associations with self-reported drug-use pattern and lifetime heroin consequences in the full sample; a subset of 44 participants provided data on past-month heroin purchasing and use behaviors. Results: Number of lifetime consequences was significantly higher for those with the TT genotype compared to C carriers, $F(2,147)=6.66$, $p = .007$. TT genotypes reported significantly more occupational consequences (high at work/school, warning at work, lost job), $F(2,143)=5.75$, $p = .004$, significantly more health consequences (seizures, shakes or tremors, memory lapse or blackout), $F(2,143)=4.26$, $p = .016$, overdoses ($\chi2=6.65$, $p = .036$) and ER visits ($\chi2=7.52$,$p = .023$). Furthermore, those with TT genotypes reported that they used more-potent heroin (past month) compared to C carriers, $F(1,44)=8.62$, $p = .005$. Conclusion: These data suggest strong involvement of ARRB2 in chronic effects of opioid use. Given that ARRB2 knockouts increase morphine conditioned place preference in rodents, and that decreased levels of ARRB2 have been found in post-mortem brains of chronic opioid users who overdosed, the heroin-related consequences and use characteristics of TT carriers in this study could be associated with diminished ß-arrestin 2 function.

Willing to present orally: No

Financial Support: NIH/NIDA 2 R01 DA015462, Helene Lycaki/Joe Young Sr. Research Funds (State of Michigan), and Detroit Wayne Mental Health Authority. NIDA R01 DA042057

Name of Sponsor (If you are NOT) a CPDD Member: Mark Greenwald

Email Address of Sponsor : mgreen@med.wayne.edu

Prefix: Mr.

First Name: Klevis

Last Name: Karavidha

Degrees: MA MD Ph.D etc:: BS

Email: fo2096@wayne.edu

Company Affiliation: Wayne State University

Mailing Address: 540 E. Canfield

Address 2: Room 2353

City: Detroit

State: MI

Zip/Postal: 48201

Country: United States

Phone: 2482512914

ID: 384
Some issues of concept, theory, and approach in research on heroin use and mood disturbances

Alyssa Vanderziel , Michigan Sate University, avanderziel13@gmail.com

---

Abstract Category: Theoretical/Commentary

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: AIM: Heroin use and mood disturbance comorbidities motivate this commentary overview about selected issues of concept, theory, and approach. Background includes classic contributions about using heroin to self-medicate psychiatric syndromes (e.g., Khantzian, 1985), as well as a more recent methods-oriented review article by Cerda and colleagues (2008). Here, the commentary's aim is to present some often-neglected ideas, with examples from our recent empirical research based on the National Health and Nutrition Examination Surveys (NHANES) in the United States (US). METHODS: The NHANES study population in 2005-14 encompassed US community residents age 18+ years, sampled, recruited and assessed using a two-phase cross-sectional survey design (n=16,326 20-59-year-olds). Computer-self-interviews elicited information about heroin use and depression levels (Patient Health Questionnaire, PHQ-9). Estimated odds ratios (OR) are analysis-weighted with Taylor series variances. RESULTS: A tangible moderate-sized heroin-depression association can be seen for lifetime heroin use (OR=3.3; 95% CI=2.3, 4.7) and for recent heroin use (OR=4.2; 95% CI=1.9, 9.3). Our commentary uses these estimates to cover issues of concept, theory, and approach. CONCLUSION: We draw attention to these issues. First, left-truncation of the study population. Second, left-censoring once sampling processes have started. Third, non-participation for reasons other than left-censoring, particularly when NHANES assessments have been delayed beyond initial assessments in respondent dwelling units. Fourth, incompletely investigated measurement equivalence issues. Fifth, model mis-specification when variables such as income and education are controlled (e.g., via statistical adjustment). Our commentary is focused on heroin-depression comorbidity associations studied epidemiologically, but the implications generalize to comorbidity research with clinical samples of patients.

Willing to present orally: No

Financial Support: MSUVPRGS & Provost support [AV] and K05DA015799 [JCA].

Name of Sponsor (If you are NOT) a CPDD Member: James C. Anthony

Email Address of Sponsor : janthony@msu.edu

Prefix: Ms.

First Name: Alyssa

Last Name: Vanderziel

Degrees: MA MD Ph.D etc:: MS

Email: avanderziel13@gmail.com

CC Email: avanderziel@epi.msu.edu

Company Affiliation: Michigan Sate University

Mailing Address: B601 909 Wilson Rd.

City: East Lansing

State: MI

Zip/Postal: 48824

Country: United States

Phone: 5869438670

Membership Year: 2018

Sponsor: Dr. James Anthony, PhD

Research Interests: Epidemiology,Psychiatric/Medical Morbidity

ID: 385
Military spouses and longitudinal substance use: The role of marital satisfaction

Jessica Kulak, Buffalo State College, jakulak@buffalo.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Use of alcohol, nicotine/tobacco, and illicit drugs/non-medical use of prescription drugs (not necessarily in combination)

Topic: Epidemiology

Abstract: Aims: There is a body of evidence that suggests spouses of service members experience elevated psychological distress as a result of their soldiers' military experiences. Whereas marital satisfaction has been documented as a key protective factor for soldiers, less is known about its potential protective effects for spouses. Therefore, an essential extension of this work is to look at the effect of marital satisfaction on military spouses' health outcomes, including its effects on substance use. Therefore, the aim of this study was to assess potentential protective impact of civilian spouses' marital satisfaction on her substance use over time while considering her soldier partners' risk factors (i.e., military experiences, substance use and mental health). Methods: Data come from Operation: SAFETY (Soldiers And Families Excelling Through the Years), an ongoing longitudinal study examining health among USAR/NG soldiers and their partners. The current sample was comprised of 288 female civilians; all married or living as married to a USAR/NG service member. Logistic regression models examined the effect of marital satisfaction on her current substance use (smoking, illicit drugs and non-medical use of prescription drugs, and alcohol problems) one year later controlling for soldiers' military years of service and symptoms of depression and PTSD (at baseline), his current substance use, and years together. Results: Marital satisfaction was protective against civilian spouses' current drug use (Adjusted Odds Ratio (AOR): 0.98, p=0.015) and alcohol problems (AOR: 0.98, p=0.046) and protective, at trend, for current smoking (AOR: 0.99, p=0.071) while considering his risk factors. Conclusions: Overall, marital satisfaction is associated with lower odds of current substance use, indicating marital satisfaction is an important resiliency construct to consider for the prevention of a range of substances. Interventions that assist USAR/NG soldiers and spouses in strengthening their relationships should be evaluated for their potential to protect against substance use.

Willing to present orally: Yes

Financial Support: Award R01-DA034072 to Gregory G. Homish and the National Center for Advancing Translational Sciences of the National Institutes of Health under award number UL1TR001412 to the University at Buffalo.

Prefix: Dr.

First Name: Jessica

Middle Initial: A.

Last Name: Kulak

Degrees: MA MD Ph.D etc:: PhD, MPH

Email: jakulak@buffalo.edu

CC Email: kulakja@buffalostate.edu

Company Affiliation: Buffalo State College

Mailing Address: 205 Houston Gym

Address 2: 1300 Elmwood Ave.

City: Buffalo

State: NY

Zip/Postal: 14222

Country: United States

Phone: 716-878-6525

Membership Year: 2018

Sponsor: Dr. Gregory G. Homish, PhD

Travel Award: NIDA Diretor's 2018

Research Interests: Epidemiology,Prevention

ID: 386
Prevalence of marijuana use in pregnant women with concurrent opioid use disorder or alcohol use in pregnancy: Results from the ENRICH cohort

Ludmila Bakhireva, University of New Mexico, lbakhireva@salud.unm.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Epidemiology

Abstract: Aim: With legalization and de-criminalization of marijuana use, prevalence of cannabis use is increasing, including in pregnant women. Cannabis is now viewed as a 'safe alternative' to opioids in addressing chronic pain and stemming the tide of the opioid crisis. However, long-term consequences associated with prenatal cannabis exposure remain a contested topic, and co-exposure of marijuana with other substances is particularly worrisome. Methods: The objective was to characterize the prevalence of marijuana use in pregnant women with opioid use disorder (OUD) and women without OUD who consume alcohol during pregnancy utilizing the data from a prospective cohort study ENRICH. ENRICH enrolls and follows up pregnant women and their offspring from the second trimester of pregnancy until infants are 20 months. For this analysis, the study sample included 248 subjects (179 with OUD and 69 Alcohol), who completed the ENRICH prenatal visit. Marijuana use was ascertained by prospective maternal interviews and urine tests. Alcohol use was ascertained by prospective TLFB interviews and a battery of 6 biomarkers. Prevalence of marijuana use (from self-report, biomarkers, and cumulative) was compared between OUD and Alcohol groups by chi-square. Results: Maternal age and gestational age at enrollment were 28.5 years and 22.9 weeks, respectively; 69% were Hispanic and 29.8% had Conclusions: Results of this study indicate similar and alarmingly high prevalence of marijuana use in women with OUD and alcohol-using women, including a high proportion of patients with regular use. Supported by the NIH/NIAAA 1 R01 AA021771 grant.

Willing to present orally: Yes

Financial Support: NIH/NIAAA 1 R01 AA021771 grant

Name of Sponsor (If you are NOT) a CPDD Member: Jon Houck

Email Address of Sponsor : jhouck@unm.edu

Prefix: Dr.

First Name: Ludmila

Middle Initial: N.

Last Name: Bakhireva

Degrees: MA MD Ph.D etc:: MD, PhD, MPH

Email: lbakhireva@salud.unm.edu

CC Email: lbakhireva@salud.unm.edu

Company Affiliation: University of New Mexico

Mailing Address: 1 University of New Mexico, MSC09 5360

City: Albuquerque

State: New Mexico

Zip/Postal: 87131

Country: United States

Phone: 505-272-2545

ID: 387
The effect of pharmacare plan G coverage change in British Columbia, Canada on OAT initiation and adherence

Bohdan Nosyk, BC Centre for Excellence in HIV/AIDS, bnosyk@cfenet.ubc.ca

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Policy

Abstract: AIMS: Opioid agonist treatment (OAT) is the evidence-based standard of care for people with opioid use disorders (PWOUD). Until British Columbia's (BC) Pharmacare Plan G coverage expansion on February 1st, 2017, all individuals earning positive incomes were required to pay a portion of the costs of OAT out-of-pocket. These co-payments, amounting to an average of $102.78 per month, were eliminated with the policy change. We aimed to determine the effect of the Pharmacare Plan G coverage change on OAT initiation and retention. METHODS: We defined a cohort of all BC residents with an indication of an OUD using linked health databases. The study period was defined as the 10 months before and after the coverage expansion (04/01/2016–11/30/2017). We executed a difference-in-differences analysis in which we compared the pre/post mean difference in outcomes to that of a historical comparator cohort with identical follow-up intervals prior to the study period (08/01/2014-03/31/2016). We controlled for differences in individual demographic and clinical characteristics, OAT regimen types and prescriber characteristics. We conducted robustness checks on shorter 3- and 6-month pre/post follow-up intervals. RESULTS: Among the 56,836 PWOUD included in our analysis, during the post-intervention period 25,910 individuals received OAT and 4,721 enrolled in Plan G coverage. We found Plan G coverage expansion did not have a significant effect on OAT initiation but significantly increased OAT retention. Specifically, coverage expansion increased the probability of OAT adherence by 4.95% (95% Confidence Interval:3.02%-6.88%), decreased the number of days off OAT by 16.42%(13.46%-19.37%), and decreased the number of OAT episode discontinuations by 17.41%(10.10%-24.74%). Results were robust over shorter pre/post follow-up intervals. CONCLUSION: Reducing out-of-pocket spending improves OAT retention. The limited effect on initiation may suggest further efforts towards full implementation of the policy change may be required.

Willing to present orally: Yes

Financial Support: Funding: This study was supported by a Health Canada Substance Use and Addictions Program (1819-HQ-000036).

Prefix: Dr.

First Name: Bohdan

Last Name: Nosyk

Degrees: MA MD Ph.D etc:: Ph.D

Email: bnosyk@cfenet.ubc.ca

CC Email: lpearce@cfenet.ubc.ca

Company Affiliation: BC Centre for Excellence in HIV/AIDS

Mailing Address: 2220 Vine street

City: Vancouver

State: BC

Zip/Postal: V6K3K4

Country: Canada

Phone: 604-230-9722

Sponsor: Dr. Jeffrey Samet, PhD and Dr. Richard Rawson

Research Interests: Health Services,Treatment

ID: 388
Inhibitors of sterol carrier protein-2, a binding protein for endocannabinoids

Christopher Cunningham, Concordia University Wisconsin, chris.cunningham@cuw.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Marijuana/Cannabinoids

Topic: Chemistry

Abstract: Aim: We recently characterized sterol carrier protein-2 (SCP-2) as a binding and transport protein for endocannabinoids (eCBs). Agents that modulate eCB transport are sought after as potential treatments for disorders of stress, anxiety, and pain. Selective inhibitors of SCP-2 are needed to determine the therapeutic potential of this protein. Methods: We used target-based and ligand-based probe discovery to determine the molecular mechanisms underlying SCP-2 substrate recognition and function. Virtual docking was performed with AutoDock4.2 using a library of 11,000 compounds and an NMR structure of SCP-2 (1qnd). A set of the top-scoring compounds was tested for their ability to inhibit binding of a reference probe molecule (NBD-stearate). Another set of modified fatty acids was tested in this assay to determine structure-activity relationships of eCBs and analogs. Finally, we used the in vitro binding data to build a working pharmacophore model of SCP-2 inhibitors using Phase (Schrödinger). Results: We found that most small molecules inhibited SCP-2 with Ki between 2-10 μM, the most potent being csddd9551 (Ki 2.3 ± 0.2 μM). This compound is structurally similar to SCPI-1, a known inhibitor of mosquito SCP-2. Of the head group-modified fatty acid amides and esters, these agents to be generally more potent (Ki 0.3-6 μM). Of note, the known eCB transport inhibitor, AM404, was quite potent and efficacious in this assay (Ki 1.41 ± 0.03 μM, Emax 89.2 ± 0.8%). Molecular modeling and physicochemical property evaluation indicate that highest ligand binding efficiency values are found with small molecules, though small molecules and arachidonate derivatives are predicted to share structural similarities predictive of a similar molecular mechanism of action. Conclusion: We have discovered the first small molecule inhibitors of human SCP-2. Further structural changes to improve potency, selectivity, and aqueous solubility are underway.

Willing to present orally: Yes

Financial Support: CWC: New Investigator Award, AACP; Concordia Intramural Research Grant (CIRG)

Prefix: Dr.

First Name: Christopher

Middle Initial: W.

Last Name: Cunningham

Degrees: MA MD Ph.D etc:: Ph.D.

Email: chris.cunningham@cuw.edu

Company Affiliation: Concordia University Wisconsin

Mailing Address: 12800 N. Lake Shore Drive, PH 239

City: Mequon

State: WI

Zip/Postal: 53097

Country: United States

Phone: (262) 243-2792

Fax: (262) 243-2752

Membership Year: 2014

Sponsor: Dr. Andrew Coop and Dr. Thomas Prisinzano

Research Interests: MedicinalChemistry,Pharmacology

ID: 389
Disparities in past-year blunt use and daily cigarette smoking among sexual minority adults

Emily Greene, Columbia University, erg2138@cumc.columbia.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Epidemiology

Abstract: Aim: Sexual minority adults (SM) experience elevated rates of tobacco and marijuana use relative to heterosexuals, but co-administration of these substances (blunt use) among SM remains understudied. We examined past-year blunt use among SM relative to heterosexuals, and estimated differences by daily cigarette smoking status. Methods: Data were obtained from the public-use 2015-2017 National Surveys on Drug Use and Health (NSDUH). The NSDUH assessed sexual identity (heterosexual (H), gay/lesbian (G/L), bisexual (B)) among individuals ages 18+ (N=126,463). Self-reported measures included past-year blunt use (i.e., use of cigars filled with marijuana) and past-month daily cigarette smoking. We stratified by gender, used adjusted multivariable logistic regression to model the odds of past-year blunt use, and tested the interaction between daily cigarette smoking and sexual identity. Models accounted for complex survey design and adjusted for socio-demographics, other drug use, and population density. Results: 4.6% of adults identified as SM (men: G: 2.2%, B: 1.6% ; women: L: 1.6%, B: 3.8%). Overall prevalence of past-year blunt use was 6.2% (men: G: 11%, B: 14%, H: 8%; women: L: 12%, B: 21%, H: 4%). Lesbian and bisexual women had higher odds of past-year blunt use than heterosexual women (L: aOR=1.71 (1.34-2.18); B: aOR=1.97 (1.72-2.26)). Among men, there were no significant differences in odds of past-year blunt use by sexual identity. Within groups, daily cigarette smokers had higher odds of past-year blunt use. Daily cigarette smoking modified the association comparing past-year blunt use among bisexual vs. heterosexual women (interaction β=-0.4725, p=0.0046), but not among other subgroups. Conclusions: We found between- and within-group differences in past-year blunt use among SM women. Results highlight bisexual women as a distinct population in need of attention, as they may experience compounded health effects of blunt use and daily cigarette use.

Willing to present orally: Yes

Financial Support: K01DA039804 (Philbin), R01DA037866 (Martins), K01DA045224 (Mauro)

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Silvia Martins

Email Address of Sponsor : ssm2183@cumc.columbia.edu

Prefix: Dr.

First Name: Emily

Middle Initial: R

Last Name: Greene

Degrees: MA MD Ph.D etc:: MPH, PhD

Email: erg2138@cumc.columbia.edu

CC Email: emily.r.greene.phd@gmail.com

Company Affiliation: Columbia University

Mailing Address: 722 West 168th Street

Address 2: R508

City: New York

State: NY

Zip/Postal: 10032

Country: United States

Phone: 6463423956

ID: 390
Impact of first episode psychosis treatment programs on heavy cannabis use among patients with psychosis

Karl Alcover, Washington State University, alcoverk@msu.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Treatment

Abstract: Introduction: Patients with psychosis have greater occurrence of cannabis use and cannabis use disorder compared to the general population. While psychosis patients have less opportunities to access interventions to reduce drug use, cannabis-using patients have increased risk of non-adherence to medication. It is important to develop treatments that help reduce cannabis use among patients with psychosis. In this study, we investigate the effects of first-episode psychosis (FEP) treatments in reducing heavy use of cannabis among FEP patients. Methods: Using survival analysis with shared frailty, we compared heavy cannabis use of 132 cannabis-using FEP patients from the Recovery After Initial Schizophrenia Episode-Early Treatment Program (RAISE-ETP) study, 74 of whom were randomly selected to receive the evidence-based NAVIGATE treatment and 58 were randomized to community care (treatment-as-usual). Results: Higher survival probability was observed among patients with Community Care treatment compared to patients with NAVIGATE treatment. Excess hazard rate of heavy cannabis use was observed among NAVIGATE patients (HR = 2.0; 95% CI = 1.2, 3.5). The results were consistent after adjusting for heavy cannabis use at baseline, age, sex, and ethnic/race self-identification (HR = 1.8; 95% CI = >1.0, 3.2). Conclusions: Our study provides evidence of heavy cannabis use variation between patients who received NAVIGATE treatment and patients with community care treatment. Among FEP patients, NAVIGATE treatment is associated with excess occurrence of heavy cannabis use. We note issues to address in future work, including self-report measures of cannabis use and absence of toxicological assays. Our findings can be used as preliminary step to further explore effective treatments for drug use among FEP patients.

Willing to present orally: Yes

Financial Support: Washington State Department of Social and Health Services, Division of Behavioral Health and Recovery (grant 1265-62496).

Prefix: Mr.

First Name: Karl

Last Name: Alcover

Degrees: MA MD Ph.D etc:: PhD

Email: alcoverk@msu.edu

CC Email: k.alcover@wsu.edu

Company Affiliation: Washington State University

Mailing Address: 707 W 5th Ave, Apt 611

City: Spokane

State: WA

Zip/Postal: 99204

Country: United States

Phone: 8082305378

Membership Year: 2014

Sponsor: Dr. James Anthony, PHD

Research Interests: Epidemiology,Prevention

Date of Membership: expected graduation 2018

ID: 391
Punitive approaches to pregnant women with opioid use disorder: Impact on health care utilization, outcomes and ethical implications

Tiana Clemons, Quinnipiac University , tiana.l.clemons@gmail.com

---

Abstract Category: Literature Review

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Perinatal

Other Topic: Policy

Abstract: Opioid use disorder (OUD) is increasingly recognized in pregnant women, with health risks to both mother and fetus. The clinical standard of care includes medication assisted therapy (MAT), but multiple barriers exist for pregnant women. Often, OUD in pregnancy is criminalized. Aim We aimed to assess the extent and impact of these punitive approaches (in terms of healthcare utilization, health outcomes, and ethical implications) to pregnant women with OUD. Method We searched peer-reviewed and gray literature (using key words related to pregnancy; OUD; and criminalization) and extracted key outcomes of interest. Results 58 reports were analyzed, including 14 healthcare professional position papers; 11 medical reviews or editorials; 9 medical studies; 13 legal reports; 7 ethics papers; and 4 organizational reports. Punitive approaches include explicit criminalization (1 state), criminal prosecution under child-endangerment laws (2 states); civil prosecution under child-welfare laws (23 states); required healthcare testing and reporting with potential threat to parental rights (23 states); and involuntary treatment commitment (3 states). Health professionals universally opposed punitive approaches. Harms associated with criminal prosecution of OUD in pregnant women include: lower MAT engagement, deterrence from prenatal care, and family separation. Ethical analysis identified problems with (1) infringement of women's civil rights; (2) inappropriately posing conflict between inter-related maternal and fetal outcomes; (3) individualizing blame for fetal outcomes, while neglecting societal responsibilities; and (4) unjust racial and economic disparities in policy implementation. Conclusion This review highlights a stark disparity between legal approaches in almost half of US states versus medical consensus and ethical recommendations. This gap between practice and recommendations should be further investigated, identifying barriers to implementing an evidence-based, ethical approach that emphasizes access to medical and social services for pregnant women with OUD.

Willing to present orally: Yes

Financial Support: This work was supported by the NIH (NIDA 1R01DA034243 to KY; NIAID T32 AI007517 to DM) and the Doris Duke Charitable Foundation Clinical Scientist Development Award (to JPM).

Name of Sponsor (If you are NOT) a CPDD Member: Jaimie P. Meyer / Kathleen Carroll

Email Address of Sponsor : jaimie.meyer@yale.edu

Prefix: Ms.

First Name: Tiana

Middle Initial: L.

Last Name: Clemons

Degrees: MA MD Ph.D etc:: MPA

Email: tiana.l.clemons@gmail.com

Company Affiliation: Quinnipiac University

Mailing Address: 6501 Yale St. Apt 710

City: Westland

State: MI

Zip/Postal: 48185

Country: United States

Phone: 2489381843

Biography: Tiana Clemons is a native of Chicago,IL and resides in Michigan. She attended Western Michigan University where she earned a B.S in Biomedical Sciences, B.A in Spanish and Dance, and a M.P.A in Healthcare Administration. She is currently attending Quinnipiac University as a student pursing a M.H.S in Medical Laboratory Sciences. She hopes to matriculate into medical school and focus on advocating for underserved populations.

ID: 392
Safety and liability concerns and naloxone deployment in response to an opioid overdose among patrol officers

Melissa Podolsky, Centers for Disease Control and Prevention/ORISE Fellowship, oex0@cdc.gov

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Prevention

Abstract: AIM: Law enforcement officers play a critical role in saving lives during an opioid overdose event, as they are among the first to respond to an overdose call and can prevent a fatal overdose through timely naloxone administration. Concerns about fentanyl in the drug supply and personal liability may inhibit their ability to respond. We seek to examine concerns about fentanyl and personal liability among patrol officers and their relationship with naloxone deployment. METHODS: Ten High Intensity Drug Trafficking Areas across 19 states assessed patrol officers on overdose prevention knowledge, experience responding, and safety and liability concerns, via a brief, self-administered, quantitative survey. We conducted a secondary analysis to quantify overdose response and naloxone administration, identify correlates of naloxone administration, and determine whether concerns of safety and liability influence naloxone distribution. RESULTS: Among the 1,645 patrol officers who have responded to at least one opioid overdose call in the past six-months and work in departments that carry naloxone, 95.95% received overdose response training and 42.62% had administered naloxone. The likelihood of administering naloxone significantly differed by age, jurisdiction type, department size, and personally knowing someone who experienced an opioid overdose (Table 1). The majority of respondents worried about people who use drugs because of fentanyl, about themselves and other first responders because of fentanyl, and about liability for carrying and administering naloxone (66.77%, 93.33%, and 50.15%, respectively). These concerns were not associated with self-reported naloxone administration in multivariable analyses (Table 2). CONCLUSIONS: Personal safety and liability concerns were common but did not appear to limit self-reported naloxone administration in response to an overdose. Law enforcement hold an invaluable role in rapidly responding to a person experiencing an overdose, however the gap between receiving overdose response training and administering naloxone requires further investigation. Findings will guide law enforcement initiatives to address

Willing to present orally: Yes

Financial Support: High Intensity Drug Trafficking Areas

Name of Sponsor (If you are NOT) a CPDD Member: Traci Green

Email Address of Sponsor : traci.c.green@gmail.com

Prefix: Ms.

First Name: Melissa

Middle Initial: C.

Last Name: Podolsky

Degrees: MA MD Ph.D etc:: MPH Candidate

Email: oex0@cdc.gov

CC Email: melissacpodolsky@gmail.com

Company Affiliation: Centers for Disease Control and Prevention/ORISE Fellowship

Mailing Address: 1190 Village Ct. SE

City: Atlanta

State: GA

Zip/Postal: 30316

Country: United States

Phone: 8572257846

ID: 393
Cannabis use disorder: Another addiction or self-medication for other mental health conditions

Ayodeji Otufowora, University of Florida, College of Public Health and Health Professions, deji.otufowora@ufl.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Dependence

Abstract: Aim This study sought to examine the covariates for Cannabis Use Disorder. Methods A total of 1,422 patients who were seen at the University of Florida Student Health Care Center (SHCC) Psychiatry clinic between November 2005 and May 2016 were included in this study. Patients were classified as cases if they had been diagnosed with CUD at the SHCC (N=237). Five controls were matched to each case (N=1,185) from the population of patients who sought care at the SHCC Psychiatry clinic who had not been diagnosed with CUD based on sex, age and race using a propensity score-matching algorithm. Chi-squared tests, as well as simple and multiple logistic regression models, were used to test for associations between CUD diagnosis and other clinical covariates including alcohol use disorder (AUD), other substance use disorders, generalized anxiety disorder, other anxiety disorders, depressive disorders (with and without psychosis), social phobia, and obsessive-compulsive disorder (OCD). Results Chi-squared and simple logistic regression models showed that all clinical diagnoses were statistically significant risk factors for CUD at $p < 0.05$. Multivariate logistic regression showed that the two strongest clinical predictors of CUD were AUD (OR = 11.1; 95% CI: 5.2, 25.1) and other substance use disorders (OR = 4.9; 95% CI: 3.3, 7.4). All other clinical predictors except generalized anxiety disorder remained statistically significant in the multiple regression analysis. Conclusions This study provides evidence that while depressive disorders, social phobia, OCD, and certain anxiety disorders are statistically significant risk factors of CUD, AUD and other substance use disorders are risk factors with stronger associations.

Willing to present orally: Yes

Financial Support: University of Florida Student Health Care Center; Department of Epidemiology

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Linda B. Cottler

Email Address of Sponsor : lbcottler@ufl.edu

Prefix: Dr.

First Name: Ayodeji

Last Name: Otufowora

Degrees: MA MD Ph.D etc:: MBBS, MPH

Email: deji.otufowora@ufl.edu

CC Email: deji.otufowora@gmail.com

Company Affiliation: University of Florida, College of Public Health and Health Professions

Mailing Address: 2004 Mowry Rd, CTRB Room 4206

City: Gainesville

State: FL

Zip/Postal: 32610

Country: United States

Phone: 7733720258

ID: 394
Meta-analysis of sex differences in completed NIDA Clinical Trials Network studies

Sarah Mennenga, New York University School of Medicine, Sarah.Mennenga@nyumc.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Sex Differences

Abstract: Aim: To utilize publicly available data from the NIDA Clinical Trials Network to investigate sex differences in substance use disorder treatment outcomes. Methods: Sex differences in addiction are understudied, and can be due to sociocultural and biological differences between males and females. Studies suggest that women have more difficulty quitting tobacco, but analyses across a breadth of substance use disorders and treatment modalities is lacking. The National Institutes of Health (NIH) is among an increasing number of agencies advocating for trial results to be made publicly available, and in support of this initiative, the National Institute on Drug Abuse (NIDA) has developed and maintains the NIDA Data Share website, on which data from completed NIDA-funded clinical trials are made publicly available. Utilizing data from existing NIDA Clinical Trials Network (CTN) studies, we are performing a meta-analysis to determine whether treatment success in NIDA CTN intervention studies varies by sex. Results: All NIDA CTN studies that: 1) are complete with data shared, 2) include both males and females, 3) utilize a behavioral or pharmacological intervention, and 4) measure a clinical outcome related to addiction have been selected, yielding a sample of 27 studies with data from 14,083 participants, including 9,051 (64%) males and 5,032 (36%) females. Binary measures of clinically relevant treatment success versus treatment failure within each study have been developed and will be used to test the hypothesis that the ratio of the proportion of treatment success in women to the proportion of treatment success in men will be less than 1, meaning a smaller proportion of women experience outcomes beneficial for addiction, compared to men. Conclusion: The NIDA CTN data share is an important source of data allowing analysis of treatment success by sex across a wide breadth of treatment modalities and substance use disorders.

Willing to present orally: Yes

Financial Support: Supported by: NIDA Diversity Supplement to UG1DA013035

Name of Sponsor (If you are NOT) a CPDD Member: Edward Nunes

Email Address of Sponsor : Edward.Nunes@nyspi.columbia.edu

Prefix: Dr.

First Name: Sarah

Last Name: Mennenga

Degrees: MA MD Ph.D etc:: Ph.D.

Email: Sarah.Mennenga@nyumc.org

Company Affiliation: New York University School of Medicine

Mailing Address: 462 Frist Avenue

Address 2: A Building - Rm A838

City: New York

State: NY

Zip/Postal: 10016

Country: United States

Phone: 602-579-7272

ID: 395
Racism and trauma: Examining unique effects on cannabis use among African American young adults

Shirin Khazvand, Indiana University Purdue University Indianapolis , skhazvan@iu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Behavior

Abstract: Aim: Exposure to traumatic events has been consistently associated with negative health outcomes, including substance use. Health outcomes, such as substance use, have also been linked with exposure to racism, resulting in the conceptualization of racism as a form of trauma among current research. However, few studies have examined both trauma and racism within the same model. Moreover, there is a need to understand if effects differ based on gender. This current study examined the effect of two types of racism (i.e., racial discrimination and microaggressions) above traditional forms of trauma on cannabis use among African American young adults. Methods: 420 participants (age 18-30, 60% female) completed an online survey on measures of trauma (Traumatic Life Events Questionnaire), racial discrimination (Schedule of Racist Events), microaggressions (Racial and Ethnic Microaggression Scale), and past year cannabis use (Cannabis Use Disorders Identification Test-Revised). Results: Due to multiple testing on the same dependent variable, a Bonferroni correction of $p < .003$ was used to reduce chances of type 1 error. Based on the hierarchical regression analysis, after controlling for age and sex, traumatic experiences did not significantly predict problem cannabis use ($b = .12$, $p = .024$). However, racial discrimination added unique and incremental variance in predicting problem cannabis use ($b = .30$, $p < .001$), while microaggression subscales did not produce statistically significant effects on cannabis use. A significant interaction was also found for gender, such that the effect of trauma was stronger for females than males ($b = .33$, $p < .001$). Conclusion: These findings add to the existing literature on trauma-based risk models for substance use, emphasizing the need to include race-based trauma within such models. Future research is also needed to determine if risk models vary based on gender.

Willing to present orally: Yes

Financial Support: Funding sources: K01DA043654, R25DA035163 & P30DA027827 from the National Institute on Drug Abuse

Name of Sponsor (If you are NOT) a CPDD Member: James Sorensen

Email Address of Sponsor : James.Sorensen@ucsf.edu

Prefix: Ms.

First Name: Shirin

Last Name: Khazvand

Degrees: MA MD Ph.D etc:: BA

Email: skhazvan@iu.edu

Company Affiliation: Indiana University Purdue University Indianapolis

Mailing Address: 1542 Woodson Drive

Address 2: Apt 227

City: Indianapolis

State: IN

Zip/Postal: 46227

Country: United States

Phone: 707-761-0896

ID: 396
Medical cannabis: Avenue to alleviation or path to problematic use

Kelly Sagar, McLean Hospital, ksagar@mclean.harvard.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Tolerance/Dependence

Abstract: AIM Although many have studied cannabis use disorders (CUD) among recreational consumers, little research has addressed whether medical cannabis (MC) patients develop symptoms/behaviors associated with problematic cannabis use. We hypothesized that MC patients would exhibit few symptoms of problematic use relative to recreational users. METHODS As part of an ongoing, longitudinal study, 45 MC patients completed baseline assessments prior to initiation of cannabis treatment; a subset have returned for follow-up visits after three (n = 33), six (n = 22), and twelve (n = 13) months of treatment. To assess potential problematic cannabis use, patients completed the Cannabis Use Disorders Identification Test (CUDIT) at each visit. Patients' CUDIT scores were also compared to CUDIT scores in cohorts of heavy and casual recreational cannabis users. RESULTS Repeated measure ANOVAs revealed that although total CUDIT scores increased in MC patients over time (psCONCLUSION Findings suggest MC patients do not meet the threshold for 'hazardous' cannabis use, and exhibit fewer symptoms of problematic use relative to heavy recreational users. Interestingly, MC patients generally used cannabis as frequently as heavy users, suggesting that differences between these cohorts are related to other aspects of use, including product choice and/or overall exposure to specific cannabinoids. As increases in CUDIT scores are primarily driven by frequency of use in MC patients without clinically significant increases in negative symptoms, future metrics of problematic cannabis use should consider this distinction.

Willing to present orally: Yes

Financial Support: This project was funded by NIDA R01DA032646 and private donations to the Marijuana Investigations for Neuroscientific Discovery (MIND) program.

Name of Sponsor (If you are NOT) a CPDD Member: Staci Gruber

Email Address of Sponsor : gruber@mclean.harvard.edu

Prefix: Ms.

First Name: Kelly

Last Name: Sagar

Degrees: MA MD Ph.D etc:: MA

Email: ksagar@mclean.harvard.edu

Company Affiliation: McLean Hospital

Mailing Address: 115 Mill St

Address 2: McLean Imaging Center, Mailstop 204

City: Belmont

State: MA

Zip/Postal: 02478

Country: United States

Phone: 6178552228

ID: 397
Gender and racial/ethnic differences in heavy episodic drinking and non-medical use of prescription opioids by sexual identity in a nationally representative sample of US adults

José Diaz, Columbia University, jed2158@cumc.columbia.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Ethnic Differences

Abstract: Aim: The co-use of alcohol and prescription opioids, two substances disproportionately used by sexual minorities (SM), enhances risk of adverse consequences, including overdose. To identify subpopulations at risk for co-use, we examined heavy episodic drinking (HED) and non-medical use of prescription opioids (NMUPO) by gender, sexual identity, and race/ethnicity. Methods: We used data from 76,509 adults ages 18 and older in the 2015-2016 National Survey on Drug Use and Health. Rao-Scott chi-squares compared self-reported past-month HED and past-year NMUPO by subgroups. Multivariable logistic regression models, stratified by gender and race/ethnicity and adjusting for sociodemographics, estimated past-month HED and past-year NMUPO by SM identity groups (gay, lesbian, bisexual) compared to heterosexuals. Results: More White heterosexual women (5.1%) reported HED compared to same-gender heterosexual Blacks (2.8%) and Latinas (2.7%), as did more White heterosexual men (10.8%; Black: 6.9%, Latino 7.8%) (p-values < 0 .001). Fewer gay Latinos (3.7%) reported HED than gay Blacks (10.2%) and Whites (14.0%), while more lesbian Latinas (13.5%) reported NMUPO than lesbian Blacks (4.9%) and Whites (5.9%) (p-values < 0 .01). Compared to same-race heterosexual women, bisexuals and some lesbian subgroups had higher odds of HED (Bisexuals: Black (adjusted odds ratio (aOR) [95% CI] aOR=4.84 [2.93-7.99]), Latina (aOR=3.97 [1.89-8.32]), and White (aOR=1.30 [1.06-1.64]); Lesbians: Black (aOR=2.45 [1.37-4.37]) and Latina (aOR=2.41 [1.54-3.77])). Results were similar for NMUPO, particularly among bisexual women (Black (aOR=3.95 [2.49-6.27]), Latina (aOR=3.72 [2.39-5.80]), White (aOR=2.66 [2.13-3.33[PMM1]]). Comparing gay men to same-race to heterosexual men, Latinos had lower odds of HED (aOR=0.39 [0.19-0.78]) and higher odds of NMUPO (aOR=2.34 [1.13-4.83]); Whites had higher odds of NMUPO (aOR=1.90 [1.27-2.85]). Conclusions: SM women of color, uniquely impacted by gender-, sexuality-, and race-based biases, may be at elevated risk of the co-use (and health consequences) of heavy alcohol use and NMUPO. Findings highlight the need for targeted substance- and population-specific prevention of substance use disparities.

Willing to present orally: Yes

Financial Support: T32DA031099, R01DA037866, K01DA045224, K01DA039804

Name of Sponsor (If you are NOT) a CPDD Member: Silvia Martins

Email Address of Sponsor : ssm2183@cumc.columbia.edu

Prefix: Dr.

First Name: José

Middle Initial: E.

Last Name: Diaz

Degrees: MA MD Ph.D etc:: Ph.D

Email: jed2158@cumc.columbia.edu

Company Affiliation: Columbia University

Mailing Address: 103 Chester Avenue, 2

City: Brooklyn

State: NY

Zip/Postal: 11218

Country: United States

Phone: 617-383-1246

ID: 398
Police interactions and carrying naloxone among people who inject drugs

Megan Reed, Drexel University, mr925@drexel.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Other

Other Topic: overdose

Abstract: AIM People who inject drugs (PWID) who interact with police or fear police interactions are less likely to use harm reduction measures, especially those that involve carrying injection equipment. However, we do not know what influence police interaction has on carrying naloxone. METHODS Using respondent driven sampling, PWID (n=571) in Philadelphia, PA were recruited for the 2015 National HIV Behavioral Surveillance project. Data assessing past-year police interaction and current naloxone carriage were analyzed using multivariable logistic regression. RESULTS Approximately 62% of PWID reported police stops, arrests, or both in the past 12 months. In the multivariable model, participants reporting both police stops and arrests were nearly 4 times as likely (AOR=3.87, 95%CI: 1.39, 10.78) to carry naloxone compared to those with neither stops nor arrests. Odds of carrying naloxone were greater among those primarily receiving syringes from a syringe exchange (AOR=2.99, 95% CI: 1.31, 6.81) compared to secondary sources (e.g., friend/relative or off the streets) and among homeless PWID (AOR=2.34, 95% CI: 1.06, 5.34) compared non-homeless PWID. Additional analysis indicated that homeless PWID were also more likely to experience police interaction compared to non-homeless PWID (67.7% vs. 56.4%, $p < 0$ .01). CONCLUSION Results suggest that in this sample police interaction was positively associated with carrying naloxone among homeless PWID. It is unclear if interactions with law enforcement officers facilitate referrals or access to naloxone. Further studies are needed to determine the relationship between police interactions and increased carriage of naloxone among PWID.

Willing to present orally: Yes

Financial Support: Centers for Disease Control and Prevention and Cooperative Agreement Number 5U1BPS003253 to the Philadelphia Department of Public Health.

Name of Sponsor (If you are NOT) a CPDD Member: Karla Wagner, PhD

Email Address of Sponsor : karlawagner@unr.edu

Prefix: Ms.

First Name: Megan

Last Name: Reed

Degrees: MA MD Ph.D etc:: Drph Candidate, MPH

Email: mr925@drexel.edu

CC Email: megankreed@gmail.com

Company Affiliation: Drexel University

Mailing Address: 3215 Market Street

Address 2: 4th floor Nesbitt Hall

City: Philadelphia

State: PA

Zip/Postal: 19104

Country: United States

Phone: 9176565449

Sponsor: Dr. Karla Wagner, PhD

Research Interests: Policy,Treatment

Date of Membership: applying for MIT 1.1.19

ID: 399
The influence of ovarian hormones on cigarette smoking behavior in the natural environment

Nathaniel Baker, Medical University of South Carolina, bakern@musc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Other

Other Topic: Ovarian Hormones

Abstract: AIMS: The primary aim of this study was to determine the association between ovarian hormone fluctuations and daily cigarette smoking behavior of untreated female smokers in the natural environment. METHODS: Over fourteen consecutive days, nicotine dependent female smokers (N=115) provided daily salivary samples to determine ovarian hormone levels; they also used a mobile device to record the number of cigarettes smoked each day (CPD). Participants could enter the study at any time during their menstrual cycle; cycle data were collected throughout the study and it was used to center study data around menses onset. Within subject centered progesterone and estradiol were calculated as the primary independent variables while CPD was the dependent variable of interest. Generalized linear mixed effects models were developed to assess the association between progesterone/estradiol levels and CPD. Additionally, piecewise linear models were used to determine if relative levels of hormones (above/below within subject mean, for each individual) modified the relationships with CPD. RESULTS: Participants submitted 1579 saliva samples, of which 1136 had also recorded corresponding cigarettes per day. Participants reported an average of 13.7 CPD (SD=7.4) during the study period. In adjusted models (age, alchohol use, cycle day), within subject increases in progesterone levels (1 SD=86 ng) were associated with a significant decrease in CPD (β=-0.35; SEM=0.13; p < 0 .01). Piecewise regression models found that when particpants were below their within subject mean progesterone level, increases in progesterone were associated with a significant decrease in CPD (β=-0.48; SEM=0.20; p=0.017) while the relationship was attenuated when levels were above their mean (β=-0.06; SEM=0.37; p=0.88). Within subject changes in estradiol (1 SD=0.77 ng) were not associated with changes in CPD (β=0.16; SEM=0.12; p=0.19). CONCLUSIONS: When subject-specific progesterone levels were relatively low and increasing (early luteal), smoking was reduced; however, further reductions were absent when progesterone levels were high (late luteal).

Willing to present orally: Yes

Financial Support: This study was supported by National Institutes of Health grant P50DA016511 (Brady). Additional funding and support came from National Institutes of Health grants U54DA01651 (McRae-Clark), and UL1TR001450 (Brady).

Name of Sponsor (If you are NOT) a CPDD Member: Erin McClure

Email Address of Sponsor : mccluree@musc.edu

Prefix: Mr.

First Name: Nathaniel

Middle Initial: L

Last Name: Baker

Degrees: MA MD Ph.D etc:: M.S.

Email: bakern@musc.edu

Company Affiliation: Medical University of South Carolina

Mailing Address: 135 Cannon Street suite 303

Address 2: MSC 835

City: Charleston

State: SC

Zip/Postal: 29425

Country: United States

Phone: 843-792-5028

ID: 400
A comprehensive examination of delay and probability discounting processes in cocaine use

David Cox, Johns Hopkins University School of Medicine, dcox33@jhmi.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Behavior

Abstract: Despite a shifting landscape of illicit drug use, cocaine abuse and dependence continues to be a significant issue in the United States. Behaviorally, cocaine use has been associated with greater delay discounting (i.e., devaluation of future consequences) than non-cocaine users. But, many factors known to affect discounting, such as sign (reward or loss), magnitude (e.g., $10 vs. $1000), and domain (e.g., money vs. health) of the consequence have not been examined in demographically matched cocaine- and never-users. Probability discounting, a distinct behavioral process referring the devaluation of a consequences due to its uncertainty, is also under examined in cocaine use. Therefore, we compared sign, magnitude, and domain effects between cocaine-users (n=23) and never-users (n=24), for both delay and probability discounting. Participants completed 18 (cocaine-users) or 16 (never-users) delay and probability discounting tasks spanning: rewards and losses; money, cocaine, and health outcomes; and magnitudes of $10, $100, and $1000. There were four primary findings. First, cocaine-users discounted more steeply than never-users regardless of sign, magnitude, domain, delay, or probability (with the possible exception of probability discounting of monetary losses). Second, outcome sign influenced discounting similarly for cocaine-users and never-users, which contrasts with the absence of a sign effect observed with smokers and heroin users. Third, within cocaine users, cocaine-related outcomes were discounted most steeply, with variable results comparing discounting of money and health outcomes. Lastly, machine learning analysis suggested rates of discounting might be interrelated across sign, magnitude, and domain. In total, these data suggest cocaine-users show widespread preference for smaller-sooner or smaller-certain consequences compared to never-users.

Willing to present orally: Yes

Financial Support: This research was supported by R01DA032363 and T32DA007209 from the National Institute on Drug Abuse

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Matthew W. Johnson

Email Address of Sponsor : mwj@jhu.edu

Prefix: Dr.

First Name: David

Last Name: Cox

Degrees: MA MD Ph.D etc:: PhD, MSB

Email: dcox33@jhmi.edu

Company Affiliation: Johns Hopkins University School of Medicine

Mailing Address: 5510 Nathan Shock Dr

City: Baltimore

State: Maryland

Zip/Postal: 21224

Country: United States

Phone: 352-281-2525

ID: 401
Reduced adverse health care utilization outcomes among Medicaid enrollees with buprenorphine treatment continuity vs. discontinuation after 6-9 months

Hillary Samples, Columbia University Mailman School of Public Health, h.samples@columbia.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM: Quality indicators measuring continuous pharmacological treatment of opioid use disorders define a minimum treatment period as 180 days, yet little is known about patient outcomes following discontinuation compared to those who remain on treatment longer. The aim of this study was to compare health care utilization outcomes among adults with continuous buprenorphine treatment and adults who discontinued buprenorphine between 180-270 days after treatment initiation. METHODS: We conducted a matched retrospective cohort study using longitudinal insurance claims data from the 2013-2015 MarketScan Multi-State Medicaid database. The sample included adults 18-64 at the time of buprenorphine initiation with treatment episodes at least 180 days. Patients who discontinued after 180-270 days (n=1,939) were matched to patients with continuous buprenorphine treatment through the entire follow-up period (n=5,396), defined as 180 days beyond the discontinuation date. Using one-to-one nearest neighbor propensity score matching on baseline demographic and clinical characteristics, the final sample included 3,878 adults. We evaluated population-averaged associations between buprenorphine discontinuation and health care utilization outcomes (prescription opioid use and inpatient, emergency, and overdose-related services) using a difference-in-differences framework and multivariable GEE logistic regression models. RESULTS: After matching, adults with continuous buprenorphine treatment (n=1,939) were similar to those who discontinued after 180-270 days (n=1,939) in terms of demographic and clinical characteristics. Compared to those who discontinued buprenorphine treatment, continuous treatment was associated with percentage point reductions in the day-level probability of receiving inpatient (-0.02, 95% CI -0.04 to -0.01; P=.01), emergency (-0.18, 95% CI -0.24 to -0.13; P

Willing to present orally: Yes

Financial Support: Financial support for this work was provided by grants from the National Institute on Drug Abuse (NIDA) [grant numbers T32 DA031099 and K23 DA044342] and the Agency for Healthcare Research and Quality (AHRQ) [grant numbers R18 HS03258, U19 HS021112, and R18HS02346].

Prefix: Dr.

First Name: Hillary

Last Name: Samples

Degrees: MA MD Ph.D etc:: PhD, MHS

Email: h.samples@columbia.edu

Company Affiliation: Columbia University Mailman School of Public Health

Mailing Address: 722 W. 168th St.

City: New York

State: NY

Zip/Postal: 10032

Country: United States

Phone: 212-342-4549

Membership Year: 2018

Sponsor: Dr. Silva Martins, PhD

Research Interests: Epidemiology,Health Services

ID: 402
The influence of tobacco and opioid use disorders on effort-based decisions

Merideth Addicott, University of Arkansas for Medical Sciences, merideth.addicott@duke.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Behavior

Abstract: Aim: A reduced willingness to perform effort based on the magnitude and probability of reward receipt has been associated with diminished dopamine function and anhedonia, and may be relevant to chronic drug use. Here, we investigated the influence of tobacco and opioid use disorders on effort-based decisions. Methods: Non-drug using controls (n = 23), tobacco smokers (n = 27), and opioid use disorder participants receiving outpatient treatment (n = 20; 80% also smoked tobacco) completed the Effort Expenditure for Rewards Task in which participants make a series of choices between a low-effort option (i.e., making 30 button presses in 7 sec with the dominant-hand index finger) worth $1, and a high-effort option (i.e., making 100 button presses in 21 sec with the nondominant-hand pinky finger) worth between $1.24-$4.30. In addition, the probability of receiving the reward upon successful completion of the task varies from .12, .5 and .88. Results were analyzed using a 3 (group) x 4 (value) x 3 (probability) repeated measures ANOVA. Results: Participants selected more high-effort options as potential reward values ($p < .003$) and reward probabilities ($p < .001$) increased across trials. Both tobacco and opioid use disorder groups were less sensitive to the changes in value and probability than controls, as shown by an interaction effect for group x value x probability ($p = .016$). Tobacco and opioid use disorder groups were not significantly different. However, these two groups did not select fewer high-effort options on average, compared to the control group. Conclusion: These results suggest that diminished sensitivity to effort costs is generalizable across drug use disorders; although it is uncertain whether tobacco smoking alone could be driving these results. Motivation to perform effort for nondrug rewards may play an important role in maintaining drug abstinence, and future studies should investigate how dopamine function

Willing to present orally: Yes

Financial Support: NIH NIDA K01 DA033347 and by the Arkansas Biosciences Institute, the major research component of the Arkansas Tobacco Settlement Proceeds Act of 2000.

Prefix: Dr.

First Name: Merideth

Last Name: Addicott

Email: merideth.addicott@duke.edu

CC Email: maddicott@uams.edu

Company Affiliation: University of Arkansas for Medical Sciences

Mailing Address: 4301 W. Markham St., #843

City: Little Rock

State: AK

Zip/Postal: 72205-7199

Country: United States

Phone: 5015268436

Membership Year: 2011

Sponsor: Dr. Cynitha Kuhn, Drs. Alison Oliveto and Dr. Michael Mancino

Research Interests: Behavioral Pharmacology,Neurobiology

Date of Membership: 11.16.18 approved

ID: 403
Characteristics, feasibility, and efficacy of technology-based interventions for opioid use disorder and aberrant opioid behavior: a systematic review

Kristen Rosen, UT Health San Antonio, rosenk3@uthscsa.edu

Abstract Category: Literature Review

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim: Opioid use disorder (OUD) is a chronic relapsing condition requiring significant intervention. Using technology-based approaches to optimize OUD treatment is promising, but under-researched. This systematic review explores the characteristics, feasibility, and efficacy of technology-based interventions (TIs) designed to reduce illicit opioid use and aberrant opioid behavior. Methods: The review team searched MEDLINE, CINAHL, PsycINFO, and Scopus databases for original peer-reviewed articles published through September 2018. Eligible articles met the following criteria: 1) prospective study design; 2) adult sample; 3) ≥ one TI component; 4) outcomes that included illicit opioid use or aberrant opioid behavior. Articles were independently reviewed by three coders, and screening was completed in two phases. 1) Title and abstracts were screened to remove articles that clearly did not meet eligibility criteria. 2) Coders reviewed the full text of remaining articles and either retained or removed articles based on eligibility criteria. Disagreements were resolved through discussion. Using a set of standardized forms, coders then extracted data for analysis (i.e., study characteristics, intervention characteristics, feasibility, outcomes) and conducted quality and bias assessment. All forms were piloted prior to beginning data extraction. Results: Search results yielded 8,654 articles; 84 were retained for full text review. Of these, 20 articles met eligibility criteria and were retained for data extraction. Overall, 17 unique studies were published between 2008 - 2018; outcomes of one study were published across four articles. Interventions utilized internet (n=8), computer-assisted (n=5); telephonic (n=2), mobile app (n=1), and text message (n=1) delivery approaches. Conclusion: There are currently no standard guidelines regarding design or implementation of TIs in the context of OUD. We synthesize research examining the utility of TIs designed to reduce illicit opioid use and aberrant opioid behavior, identify gaps in the literature, and propose recommendations for future research.

Willing to present orally: Yes

Financial Support: 1) This project is supported by the San Antonio Life Sciences Institute: Pilot Awards for Opioid Epidemic Research 2) Dr. Rosen's effort is supported by the National Institute on Drug Abuse (NIDA T32DA031115; PI: Charles France)

Name of Sponsor (If you are NOT) a CPDD Member: Angela Stotts, Ph.D.

Email Address of Sponsor : Angela.L.Stotts@uth.tmc.edu

Prefix: Dr.

First Name: Kristen

Last Name: Rosen

Degrees: MA MD Ph.D etc:: Ph.D., M.P.H.

Email: rosenk3@uthscsa.edu

Company Affiliation: UT Health San Antonio

Mailing Address: 7703 Floyd Curl Drive

City: San Antonio

State: TX

Zip/Postal: 78229

Country: United States

Phone: 210-450-8587

ID: 404
Disabusing ourselves of the term “abuse”: Language, stigma and psychoactive substances

Kenneth Tupper, British Columbia Centre on Substance Use, kenneth.tupper@bccsu.ubc.ca

---

Abstract Category: Theoretical/Commentary

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: All psychoactive substances

Topic: Policy

Abstract: AIM: This paper outlines how the terminology used by health professionals, researchers and policy-makers in the field of addictions can create or perpetuate stigma against people who use drugs. In particular, it focuses on the word “abuse” as a term that—when applied to drug use—is pseudo-scientific, moralizing and stigmatizing. METHODS: Critical discourse analysis is used to explain how abandoning the binary antonyms of “use” vs. “abuse” can help clinicians, researchers, and policy-makers adopt a less stigmatizing and more person-centric understanding of psychoactive substance use and addiction. It illustrates this with an alternative framing adopted by the British Columbia Ministry of Health and a new First Nations Health Authority in British Columbia—a “spectrum” of psychoactive substance use—which provides a more nuanced representation of the plurality of relationships that individuals, communities and cultures can have with psychoactive substances. RESULTS: The noun “abuse” is a binary antonym to the noun “use,” meaning it provokes a black-and-white, either-or linguistic framing of behaviour; moreover, while “use” is a neutral generic term, its stigmatizing antonym “abuse” connotes deviance and malfeasance. With respect to psychoactive substances, the conventional definition of “use” renders drug consumption acceptable if and only if it is done for either medical or scientific purposes. However, this is a prejudicially narrow frame of acceptability, given the broader set of historical and cultural motivations humans have for altering consciousness with various plants and preparations. CONCLUSION: In several key policy documents, the British Columbia health system has recognized a spectrum of drug use that helps distinguish harms from addiction, other kinds of drug-related harms, and harms from drug policies. Acknowledging that drug use can occur along a spectrum—from problematic to beneficial—provides a more evidence-based public health framing of psychoactive substance consumption than the simplistic and moralistic binary of use vs. abuse.

Willing to present orally: Yes

Financial Support: Supported by the British Columbia Ministry of Health

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Evan Wood

Email Address of Sponsor : evan.wood@bccsu.ubc.ca

Prefix: Dr.

First Name: Kenneth

Last Name: Tupper

Degrees: MA MD Ph.D etc:: Ph.D.

Email: kenneth.tupper@bccsu.ubc.ca

Company Affiliation: British Columbia Centre on Substance Use

Mailing Address: 400 - 1045 Howe Street

City: Vancouver

State: British Columbia

Zip/Postal: V6Z 2A9

Country: Canada

Phone: 236-888-7026

ID: 405
The impact of social violence on women's utilization of housing-based overdose prevention sites: An ethnographic study during an overdose crisis in Vancouver, Canada

Alexandra Collins, Simon Fraser University; British Columbia Centre on Substance Use, acollins@cfenet.ubc.ca

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Other

Other Topic: Harm reduction; gender

Abstract: Aim: In response to a fentanyl-driven overdose crisis, low-threshold supervised consumption sites, termed overdose prevention sites (OPS), have been rapidly implemented in Vancouver, Canada. However, 86% of fatal overdoses in the province occur inside, thereby necessitating the integration of OPS into select non-profit-operated single room accommodation (SRA) housing. As women experience disproportionate levels of drug-related harm, we examined the impact of housing OPS on their overdose risk management, hypothesizing their uptake of these interventions. Methods: From January–November 2018, ethnographic research was conducted with 35 women who use drugs living in SRA housing in Vancouver to examine overdose risk. Data included in-depth interviews and approximately 100 hours of observational fieldwork in SRAs and surrounding areas. Data were analyzed drawing on intersectional approaches, with attention to forms of social violence. Results: Findings demonstrate that everyday violence shaped how women negotiated housing-based OPS, and resulted in an increased risk of overdose. While 17 participants lived in buildings with integrated OPS, only two reported having used them. Barriers to access included: uncertainty around who else might be using the room; rules prohibiting smoking; unclean environments; and a lack of privacy. Participants considered housing-based OPS unsafe environments, and expressed fear of violence from residents or guests. The perceived risk of violence was informed by previous experiences of witnessing violence and being victimized. Many participants thus consumed drugs in their rooms as they could better control their safety, despite heightened overdose risk. Although participants in SRAs without OPS described a need for these interventions, they noted that they would still use in their rooms because they viewed this as safer. Conclusion: Findings highlight how experiences of gendered violence can undermine women's engagement with housing-based OPS. Overdose prevention strategies in SRAs should also include gender-specific models (e.g. women-only OPS, women peer workers) to help mitigate barriers to these services.

Willing to present orally: Yes

Financial Support: This work is supported by the Vanier Canada Graduate Scholarship and the Canadian Institute for Health Research.

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Evan Wood

Email Address of Sponsor : evan.wood@bccsu.ubc.ca

Prefix: Ms.

First Name: Alexandra

Last Name: Collins

Degrees: MA MD Ph.D etc:: MSc, PhD Candidate

Email: acollins@cfenet.ubc.ca

CC Email: alex.collins@bccsu.ubc.ca

Company Affiliation: Simon Fraser University; British Columbia Centre on Substance Use

Mailing Address: 215-550 East 6 Avenue

City: Vancouver

State: BC

Zip/Postal: V5T4H2

Country: Canada

Phone: 778-985-5523

ID: 406
Understanding NSW long-acting opioids in custody- treatment (the UNLOC-T study)

Adrian Dunlop, Hunter New England Local Health District, adrian.dunlop@hnehealth.nsw.gov.au

---

Abstract Category: Program Descriptions

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM: This study is designed to assess the safety and feasibility of depot buprenorphine (Buvidal) for the treatment of adults with opioid use disorders in custody. Study primary objectives are to (1) identify unexpected safety and tolerability considerations of depot buprenorphine in adults in custody in NSW (2) assess diversion and other non-medical use of depot buprenorphine and the impact on risk of violence and; (3) compare the time and cost associated with administration of depot buprenorphine to standard of care. METHODS: This prospective open-label case comparison trial will compare two depot buprenorphine preparations – Buvidal weekly and monthly depot injections to oral methadone. The study will enrol 120 participants across eight NSW correctional centres in metro and rural areas, with a mix of adult (male and female) prisoner populations and security classifications. Data will be collected on medical, dosing and correction officer time for a cost consequences analysis comparing depot buprenorphine to oral methadone and sublingual buprenorphine. RESULTS: Ethical issues and research design challenges in working with the target population will be discussed. Recruitment and baseline data will be presented. CONCLUSION: In New South Wales (NSW), Australia, the current standard of care for opioid use disorder in correctional settings is daily orally or sublingually administered opioid agonist therapy, which is resource-intensive and associated with medication diversion, particularly of sublingual buprenorphine. While answering critical setting-specific safety and tolerability questions, this study will improve understanding of the potential health economic impact and resource utilization with depot buprenorphine treatment in custodial settings compared to standard care.

Willing to present orally: Yes

Financial Support: The NSW Ministry of Health are the sponsors of the study. Camurus AB are supplying Buvidal with no right of veto of publication or dissemination of results.

Name of Sponsor (If you are NOT) a CPDD Member: Adrian Dunlop is a CPDD full member

Email Address of Sponsor : Adrian.Dunlop@hnehealth.nsw.gov.au

Prefix: Dr.

First Name: Adrian

Middle Initial: J

Last Name: Dunlop

Degrees: MA MD Ph.D etc:: PhD, MBBS, FAChAM

Email: adrian.dunlop@hnehealth.nsw.gov.au

CC Email: Leanne.Griffiths@hnehealth.nsw.gov.au

Company Affiliation: Hunter New England Local Health District

Contact Title: Director, Drug & Alcohol Clincial Services

Mailing Address: Newcastle Community Health Centre, Level 3, 670 Hunter Street

City: Newcastle

State: NSW

Zip/Postal: 2300

Country: Australia

Phone: 61 (0) 423568178

Fax: 61 2 40164661

Membership Year: 2008

Sponsor: Dr. Hendree Jones and Loretta Finnegan

Research Interests: Psychiatric/Medical Morbidity,Treatment

ID: 407
Evaluation of iPad-delivered opioid overdose education among individuals with opioid use disorder

Taylor Ochalek, Vermont Center on Behavior and Health, tochalek@uvm.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim: We have been developing and evaluating an interim buprenorphine dosing regimen to reduce illicit drug use and other risk behaviors among waitlisted opioid abusers. In an initial pilot study, 30% of participants had previously overdosed on opioids, with an average of 3.6 overdoses each (Sigmon et al., 2016), illustrating the high risk of overdose (OD) among this vulnerable population. In an ongoing subsequent larger-scale randomized trial, we have incorporated a new OD educational intervention into the Interim Buprenorphine Treatment (IBT) treatment package. We report here on the ability of this brief, iPad-delivered module to improve knowledge related to opioid-related OD risks, prevention and management. Methods: Participants complete an initial baseline assessment (Pre-Test) of OD-related knowledge using the 12-item Brief Opioid Knowledge Questionnaire (Dunn et al., 2016). They then complete an educational session (developed by Dunn et al., 2016 and adapted by us for automated delivery via iPad) consisting of information on preventing, recognizing and managing opioid-related ODs as well as intranasal naloxone (Narcan) administration for emergency OD reversal. Finally, participants complete a second knowledge assessment (Post-Test) and also receive a naloxone dose to take home. Results: Thus far, the iPad-delivered OD educational intervention is associated with significant improvements in OD-related knowledge (current n=13, total n=50 will be completed by June 2019). Percentage of correctly-answered items increased from 74% to 95% at Pre- and Post-Test, respectively, with improvements observed across all three domains (general opioid, opioid OD risk, opioid OD response knowledge) and the largest gains observed in OD response knowledge (65% to 96%). Conclusion: These preliminary data suggest that a brief, single-session opioid OD prevention education delivered via an automated iPad application may improve OD knowledge in individuals who are not currently enrolled in OUD treatment.

Willing to present orally: Yes

Financial Support: Funding: NIDA R01 DA042790, Laura and John Arnold Foundation, NIDA T32 DA007242

Name of Sponsor (If you are NOT) a CPDD Member: Stacey C. Sigmon

Email Address of Sponsor : Stacey.Sigmon@uvm.edu

Prefix: Ms.

First Name: Taylor

Middle Initial: A.

Last Name: Ochalek

Degrees: MA MD Ph.D etc:: M.A.

Email: tochalek@uvm.edu

CC Email: taylor.ochalek@gmail.com

Company Affiliation: Vermont Center on Behavior and Health

Mailing Address: 1 S Prospect St

Address 2: SATC, Rm 1415

City: Burlington

State: VT

Zip/Postal: 05401

Country: United States

Phone: 4407817601

Fax: 802-656-5793

Membership Year: 2014

Sponsor: Dr. Stacy Sigmon, Ph.D.

Travel Award: NIDA Diretor's 2018

Research Interests: Behavioral Pharmacology,Treatment

ID: 408
Detection of cognitive impairment associated with cannabis intoxication via dynamic brain functional connectivity

yingying zhu, Cornell University, zhuyingying2@gmail.com

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Imaging

Abstract: Background: THC is the most frequently detected drug in drivers in car accidents after alcohol. Δ9-tetrahydrocannabinol (THC) is the primary psychoactive compound in cannabis. Detecting the effects of THC-induced cognitive impairment in the brain for a single individual is challenging due to large inter-individual variance and small intra-individual variance in brain hemodynamics. In this work, we proposed a dynamic brain Functional Connectivity (FC) model using functional near-infrared spectroscopy (fNIRS) data to detect the brain changes associated with THC-induced intoxication and impairment. Data: We collected fNIRS recordings of 21 subjects who showed cognitive impairment after a single dose of oral synthetic THC (dronabinol; 20-50mg) and of 65 subjects who showed no cognitive impairment after receiving placebo. Heart rate and subjective intoxication measures were collected and used together with clinical impression and field sobriety test results to determine cognitive impairment status. Methods: We calculated a signature of dynamic brain FC from the fNIRS data via tensor decomposition. We further applied a SVM to classify impairment in subjects who received THC and placebo. Results: The ROC curve of dynamic brain FC for classifying whether subjects received THC vs. placebo performed with AUC=0.89 (Fig 1, left). We performed a random permutation test on the cognitive impairment probability of THC and placebo group, with p
https://drive.google.com/file/d/1T88SJG6-91UFl0Va0rlXk6UxfnOSMdq0/view?usp=sharing Figure 1. (Left) The ROC curve of cognitive impairment prediction. (Right) The computed cognitive impairment probability for 21 subjects receiving THC or placebo from each independent visit (red-THC, blue-placebo)

Willing to present orally: Yes

Financial Support: This work was supported by 4R42DA043977-02 (PI: Maravic/Evins), NIDA K24 DA030443 (AEE), NIDA K01 DA034093 (JMG), the William Cox Family Professorship in Addiction Medicine (AEE) and philanthropy funds from the Hale foundation and the Cox Family Foundation. Jodi Gilman, Ph.D. Associate Professor, Harvard Medical School Center for Addiction Medicine Massachusetts General Hospital 101 Merrimac St. Suite 320 Boston, MA 02114 Tel.: 617-643-7293 Fax: 617-643-1998

Name of Sponsor (If you are NOT) a CPDD Member: Evins, Anne Eden

Email Address of Sponsor : AEEVINS@mgh.harvard.edu

Prefix: Dr.

First Name: yingying

Last Name: zhu

Email: zhuyingying2@gmail.com

CC Email: zhuyingying2@gmail.com

Company Affiliation: Cornell University

Mailing Address: 37 uptown road

Address 2: 16 E

City: Ithaca

State: NY

Zip/Postal: 14850

Country: United States

Phone: 9198696430

ID: 409
HIV testing practices and reasons for never-testing among men who have sex with men (MSM) in Malaysia

Roman Shrestha, Yale University, roman.shrestha@yale.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Prevention

Abstract: AIM: Despite the evidence of rising HIV epidemic among men who have sex with men (MSM) in Malaysia – where sex between men is illegal and highly stigmatized – very little is known about the HIV testing practices among Malaysian MSM. This study aimed to characterize the HIV testing behaviors of Malaysian MSM, to characterize MSM who never tested for HIV, and to elucidate perceived reasons for never-testing (NT). METHODS: A cross-sectional online survey was conducted between July and November 2017 to assess HIV testing practices in 622 Malaysian MSM. Participants were recruited via MSM networking mobile apps (e.g., Grindr). In addition to HIV testing practices, participants' socio-demographic, behavioral, and psychosocial factors were assessed using an anonymous online survey. Logistic regression was used to determine factors associated with NT for HIV. RESULTS: A total of 239 MSM (38.4%) reported having never been tested for HIV and 277 (44.5%) reported having an HIV test in the past 12 months. Self-reported risk behaviors were highly prevalent: inconsistent condom use (54.3%), group sex (41.0%), and 'chemsex' (24.8%). Using multivariable logistic regression, being younger (aOR: 1.119; 95% CI: 1.063-1.177) and not knowing partner's HIV status (aOR: 5.072; 95% CI: 2.706-9.506) were positively associated with NT, whereas searching for HIV information online (aOR: 0.469; 95% CI: 0.244-0.930) was negatively associated with NT. The predominant reasons for NT included fear of positive HIV test result (50.6%), fear of being discovered to be homosexual (43.1%), fear of breach of confidentiality (41.8%), and not knowing the location of testing sites (38.1%). CONCLUSION: The present study demonstrated that the HIV testing rate among Malaysian MSM is low while risk-taking behaviors are high. These results suggest an urgent need for innovative approaches – based on the identified correlates with NT – to optimize the safe and effective

Willing to present orally: Yes

Financial Support: This work was supported by grants from the National Institute on Drug Abuse for career development (K24 DA017072 to FLA; K02 DA033139 to MMC).

Name of Sponsor (If you are NOT) a CPDD Member: Michael M. Copenhaver

Email Address of Sponsor : michael.copenhaver@uconn.edu

Prefix: Dr.

First Name: Roman

Last Name: Shrestha

Degrees: MA MD Ph.D etc:: PhD

Email: roman.shrestha@yale.edu

CC Email: roman.shrestha@uconn.edu

Company Affiliation: Yale University

Mailing Address: 135 College Street, Suite 323

City: New Haven

State: CT

Zip/Postal: 06510

Country: United States

Phone: 9034070387

Sponsor: Dr. Michael Copenhaver, PhD

Research Interests: Epidemiology,Prevention

Date of Membership: applying for MIT 1.1.19

ID: 410
Male-Female differences in the neural substrates of cigarette craving, withdrawal and relief

Maylen Perez Diaz, University of California Los Angeles, maylen21488@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Sex Differences

Other Topic: imaging

Abstract: AIM: Women have more difficulty maintaining long-term abstinence from smoking than men, are disproportionately affected by certain serious smoking-related illnesses, and experience sex-specific effects of smoking. Compared to men, women also report greater craving and withdrawal-related distress during abstinence from smoking, and a greater relief of these symptoms when they resume smoking. Yet, the neural mechanisms driving male-female differences in these behavioral states remain unknown. Understanding these differences can inform the development of personalized smoking-cessation therapies. METHODS: Previous studies suggest that brain glutamate concentration may differ between men and women, and may play a key role in smoking-related behaviors. We therefore tested for male-female differences in the effects of acute smoking on steady-state glutamate levels (Glu) in the dorsal anterior cingulate cortex (dACC) using magnetic resonance spectroscopy; and for male-female differences in the relationship between dACC Glu and cigarette craving, withdrawal, negative affect, and anxiety. RESULTS: Preliminary data suggest that female smokers have lower dACC Glu than males, and that smoking does not measurably alter steady-state dACC Glu after overnight abstinence. Lower dACC Glu was associated with greater cigarette craving, negative affect, anxiety, and psychological withdrawal symptoms, and with greater relief of these symptoms after smoking. Moreover, the relationship between dACC Glu and these behavioral measures tended to be stronger in female smokers than in males. CONCLUSION: These results provide evidence for male-female differences in the neural substrates that underlie negative smoking-related states and their relief by smoking. In addition, these data suggest that increasing steady-state dACC Glu may be a promising therapeutic target for smoking cessation.

Willing to present orally: Yes

Financial Support: NIDA grant number R01 DA044467-01

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Edythe London

Email Address of Sponsor : elondon@mednet.ucla.edu

Prefix: Dr.

First Name: Maylen

Last Name: Perez Diaz

Degrees: MA MD Ph.D etc:: Ph.D.

Email: maylen21488@gmail.com

CC Email: mperezdiaz@mednet.ucla.edu

Company Affiliation: University of California Los Angeles

Mailing Address: 12012 Goshen Ave #112

City: Los Angeles CA

State: CA

Zip/Postal: 90049

Country: United States

Phone: 678-628-5874

ID: 411
The impact of drug of choice in community corrections

Charles Clark, Wichita State University, c.brendan.clark@wichita.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Behavior

Abstract: AIM: Almost three quarters of individuals in the criminal justice system will meet criteria for a substance use disorder at some point in their lives. While much has been written on the impact of one's Drug of Choice (DOC). The vast majority of this work has been conducted with prison and jail populations. The goal of this project was to determine if such findings extend to community corrections as well. METHODS: The Addiction Severity Index and MINI were administer to a sample of 677 individuals under community corrections as part of the baseline assessment for a randomized clinical trial. Individuals were then categorized by their DOC (i.e., alcohol, marijuana, cocaine, opiates). Mental health, demographic, and criminal history variables were then assessed with a multinomial logistic regression. Individuals that did not report substance use were used as the comparison group. RESULTS: The analysis indicated that alcohol was associated with being male, White, meeting criteria for an anxiety or depressive disorder, and being arrested for a substance offence. Marijuana was associated with younger age, male gender, and being arrested for a substance offence. Cocaine was associated with older age, meeting criteria for an anxiety or depressive disorder, and being arrested for a substance offence. Opioid use was associated with being White and meeting criteria for an anxiety or depressive disorder. CONCLUSION: The findings from jail and prison research appear to generalize to community corrections as well. All of the drug use categories were associated with mood and anxiety disorders; however, they were also associated with less severe criminal histories. Individuals meeting criteria for a substance use disorder tented to be incarcerated for substance use, whereas those who did not tended to be incarcerated for person or property offenses.

Willing to present orally: No

Financial Support: R01CA14166305; PI: Cropsey

Name of Sponsor (If you are NOT) a CPDD Member: Karen L. Cropsey

Email Address of Sponsor : kcropsey@uabmc.edu

Prefix: Dr.

First Name: Charles

Last Name: Clark

Degrees: MA MD Ph.D etc:: Ph.D.

Email: c.brendan.clark@wichita.edu

Company Affiliation: Wichita State University

Mailing Address: 9911 E 21st St N

City: Wichita

State: KS

Zip/Postal: 67206

Country: United States

Phone: 3123157454

Biography: c.brendan.clark@wichita.edu

ID: 412
Does legalization of recreational cannabis use increase substance use treatment admissions for youth?

Jerry Stahler, Temple University, jstahler@temple.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Policy

Abstract: Aims: To examine whether legalization of recreational cannabis use in Colorado and Washington was associated with an increase in substance use treatment admissions for adolescents for marijuana use. Methods: Adolescent (aged 12-17) treatment admissions data for marijuana use (n=414,165) were extracted from the 2009-2015 Treatment Episode Dataset-Admissions (TEDS-A) to compare annual admissions pre-(2009-2012) and post-(2013-2015) recreational marijuana legalization in Colorado and Washington compared to other states without medical or recreational cannabis legalization. Differences-in-differences analysis was used on the sample of admissions aggregated by state/year to estimate the difference in the longitudinal trajectory of admissions in states that legalized recreational marijuana versus those that did not. Results: No differences were found in the trajectory of admissions between Colorado and Washington following recreational marijuana legalization vs. the non-legalization states ($p = 0.726$). Admissions generally declined post-legalization ($p = 0.034$). The analyses were modified to exclude admissions involving criminal justice referrals to account for de facto decriminalization practices during the study period (n=219,573). Similarly, no differences were found in the trajectory of admissions for the legalization versus non-legalization states ($p = 0.798$), though there was a general post-legalization admissions decline ($p = 0.042$). Finally, we refit the model using 2014 as the index year for legalization since commercial marijuana sales began approximately one year after formal legalization. The results were similar to the other analyses with no significant differences in the trajectory of admissions for both the full sample ($p = 0.808$) and non-criminal justice referral sample ($p = 0.915$). Conclusions: Similar to prior research on the effects of medical marijuana legalization, recreational marijuana legalization up to three years post legalization did not appear to lead to increases in adolescent treatment admissions for cannabis use. These findings may not generalize to particular subgroups of youth who may be at greater risk for substance misuse and may have been differentially affected by legalization. In addition, the results may be partially explained by other unobserved state level characteristics not included in the analysis.

Willing to present orally: No

Financial Support: None.

Prefix: Dr.

First Name: Jerry

Middle Initial: J.

Last Name: Stahler

Degrees: MA MD Ph.D etc:: Ph.D.

Email: jstahler@temple.edu

Company Affiliation: Temple University

Mailing Address: 309 Gladfelter Hall

Address 2: Dept of Geography and Urban Studies

City: Philadelphia

State: PA

Zip/Postal: 19122

Country: United States

Phone: 2152046939

Membership Year: 2004

Sponsor: Dr. Martin Adler, Ph.D. and Dr. Kim Kirby

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 413
Racial differences in the SUD services cascade among justice-involved youth

Amy Elliott, University of Florida, amy.elliott@ufl.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Ethnic Differences

Abstract: AIM: NIDA has prioritized identification of gaps in the alcohol and substance use services cascade among justice-involved children. Prior research examined racial disparities in referral to SUD screening, however further research is needed to identify disparities further down the continuum. We delineated the Florida Department of Juvenile Justice (FLDJJ) drug and alcohol use services cascade and identified gaps at each progression by race/ethnicity. METHODS: Among JIC in the FLDJJ from 2005-2015, 6,880 used drugs and/or alcohol in the past 6 months and had data on access to SUD services. Among these JIC, chi-square tests were used to investigate potential racial/ethnic disparities in four substance use treatment activities: referral to SUD screening, SUD screening/diagnosis, initiation of treatment, and completion of treatment. RESULTS: Among those classified as currently using drugs and/or alcohol (N=6,800), 56.8% (n=3865) were referred for SUD screening. White JIC were significantly more likely to be referred (65.4%) than both black JIC and Latinx JIC (50.4% and 58.8%, respectively). Among those referred for SUD screening, 77.6% (n=2,999) were screened. White JIC were more likely to be screened (81.8%) than both black JIC and Latinx JIC (73.9% and 77.5%, respectively). Among those screened for SUD, 46.1% (n=1383) initiated treatment. White JIC were more likely to initiate treatment (47.4%) than black JIC (42.2%). Among those who initiated treatment, 27.5% (n=380) completed treatment with no differences by race/ethnicity. CONCLUSION: Racial disparities were identified at most progressions of the FLDJJ drug and alcohol use services cascade. Importantly, there are no differences by race in completion of SUD treatment among those who initiate treatment. Funding, time, transportation, and other barriers are likely preventing minority JIC from accessing care. FLDJJ and the government must work to close racial gaps in the drug and alcohol use services cascade.

Willing to present orally: Yes

Financial Support: This research was supported by the NIDA T32 training grant at the UF Substance Abuse Training Center in Public Health from the National Institutes of Health (T32DA035167; Cottler LB, PI). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Name of Sponsor (If you are NOT) a CPDD Member: Linda B. Cottler, PhD MPH FACE

Email Address of Sponsor : lbcottler@ufl.edu

Prefix: Ms.

First Name: Amy

Last Name: Elliott

Degrees: MA MD Ph.D etc:: MS

Email: amy.elliott@ufl.edu

Company Affiliation: University of Florida

Mailing Address: 2004 Mowry Road

Address 2: PO Box 100231

City: Gainesville

State: FL

Zip/Postal: 32610

Country: United States

Phone: 352-273-5366

Travel Award: NIDA Diretor's 2018

ID: 414
Childhood trauma has sex-specific influences on the neural correlates of stress-induced cocaine craving

G. Andrew James, University of Arkansas for Medical Sciences, gajames@uams.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Imaging

Abstract: AIM. Guided mental imagery to induce or reduce stress commensurately alters drug craving among individuals with drug use disorders. We previously showed, for men with cocaine dependence, that histories of childhood trauma altered the functional neural circuitry underlying stress-induced drug craving. The current analysis expands our prior work to model the influence of childhood trauma upon the neural correlates of stress-induced cocaine craving in women with cocaine dependence. METHODS. Men (n=38) and women (n=37) meeting DSM-IV criteria for cocaine dependence were included in this analysis. Participants reported varying histories of childhood trauma, as measured by the Childhood Trauma Questionnaire (CTQ). Participants underwent a stress induction fMRI task, during which they viewed, listened to, and subsequently re-imagined a written and narrated script describing a personalized stressful life event. Participants also imagined a standardized neutral event. Robust linear regression evaluated the influence of Sex, Trauma (Total CTQ score), and Craving (self-reported immediately following each script) on stress induced neural activity. RESULTS. Compared to neutral scripts, stress imagery elicited widespread activity among frontostriatal and temporal networks. Compared to men, women showed significantly greater recruitment of bilateral inferior frontal gyri (both $t>3.75$) and left nucleus accumbens ($t>4.37$) during stress imagery. We previously reported that men with childhood maltreatment had greater left precuneus and left pre-SMA activity during stress imagery than men without maltreatment histories. In contrast, women showed a significant Trauma*Craving interaction effect that elicited greater right dorsolateral prefrontal cortex (DLPFC) during stress imagery ($t>4.21$). CONCLUSION. We report sex differences in stress-induced activity among neural regions implicated in reward processing and response inhibition, both of which are altered in substance use disorder.

Willing to present orally: No

Financial Support: Data acquisition supported by NIH grants R01DA019999 (Kilts) and R01DA036360 (Kilts). Additional salary support provided via grants T32DA022981 (Kilts), F30DA043928 (Martins), and R21DA042396 (James).

Name of Sponsor (If you are NOT) a CPDD Member: Clint Kilts

Email Address of Sponsor : cdkilts@uams.edu

Prefix: Dr.

First Name: G. Andrew

Last Name: James

Degrees: MA MD Ph.D etc:: Ph.D

Email: gajames@uams.edu

CC Email: g.andrew.james@gmail.com

Company Affiliation: University of Arkansas for Medical Sciences

Contact Title: Associate Professor

Mailing Address: 4301 W Markham St #554

City: Little Rock

State: AR

Zip/Postal: 72205-7199

Country: United States

Phone: 501-526-8345

Fax: 501-526-8199

ID: 415
Risk of suicide attempts among veterans seeking pain care: Comorbid opioid use disorders and psychiatric disorders

Lisham Ashrafioun, VA VISN 2 Center of Excellence for Suicide Prevention, lisham.ashrafioun@va.gov

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: AIM: The purpose of this study was to assess the associations of comorbid opioid use disorders and psychiatric disorders with suicide attempts among veterans seeking pain care. METHODS: The cohort was selected by identifying pain care initiation from 2012 to 2014 using national Veterans Health Administration data (VHA). Data on opioid use disorders (OUD), psychiatric disorders, medical comorbidity, demographics at baseline, and suicide attempts in the year following the initiation of pain care were extracted from VHA databases. The cohort was comprised of 220,882 veterans, 11,193 (5.1%) of which had an opioid use disorder. Five models the effect of comorbid OUD and depression, posttraumatic stress disorder (PTSD), anxiety disorders, bipolar disorder, and alcohol use disorders or risk for suicide attempts, after adjusting for key covariates. RESULTS: Each comorbidity was significantly associated with increased risk for a suicide attempt in the year following the initiation of pain care. Additive effects were found for comorbid OUD and depression (OUD alone: HR = 2.28; depression alone: HR = 2.53; Comorbidity: HR = 4.97) and OUD and AUD (OUD alone = 1.92; AUD alone = 2.10; Comorbidity: HR = 4.34). Sub-additive effects were found for comorbid OUD and PTSD (Hazards Ratio [HR] = 2.87), OUD and anxiety disorders (HR = 2.75), and OUD and bipolar disorder (3.93). CONCLUSION: OUD and comorbid psychiatric disorders are associated with an increased risk of suicide attempts among veterans seeking pain care. Future research and clinical work should examine mechanisms whereby comorbid OUD and depression and AUD increase risk, as well as the potential of treating both disorders simultaneously to mitigate risk.

Willing to present orally: No

Financial Support: None

Prefix: Dr.

First Name: Lisham

Last Name: Ashrafioun

Degrees: MA MD Ph.D etc:: Ph.D

Email: lisham.ashrafioun@va.gov

CC Email: Magdalena.Craig@va.gov

Company Affiliation: VA VISN 2 Center of Excellence for Suicide Prevention

Mailing Address: 400 Fort Hill Avenue

City: Canandaigua

State: NY

Zip/Postal: 14424

Country: United States

Phone: 585-393-7577

Membership Year: 2012

Sponsor: Dr. Mark Llgen and Dr. Kenneth O'Conner

Research Interests: Etiology,Treatment

ID: 416
Sex and early childhood trauma interact with cocaine use to increase impulsivity

Devin Guillory, University of Arkansas for Medical Sciences, dguillory@uams.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Sex Differences

Abstract: AIM: NIDA defines addiction as "drug seeking despite negative consequences", with impulsivity as a hallmark feature. Early childhood trauma is a prominent risk factor for developing drug dependence in adulthood, but with sex differences influencing this trajectory. For this study, we sought to understand the interacting influences of childhood trauma exposure, sex, and cocaine dependence upon impulsivity. METHODS: 114 men and women with varying histories of cocaine dependence and childhood trauma exposure were recruited for an fMRI study on risk taking. ANOVA assessed the influences of Sex, Trauma (median-split stratification of Childhood Trauma Questionnaire Total Score), and Cocaine Dependence (determined via DSM-IV) upon Impulsivity (measured via the Barratt Impulsivity Scale, BIS). RESULTS: We did not find a significant three-way interaction of Sex, Trauma, and Cocaine Dependence upon total BIS score. However, we did report a significant two-way interaction of Cocaine*Sex [$F(1,101)=6.86$, $p < 0.011$] and Cocaine*Trauma [$F(1,101)=4.34$, $p=0.399$] upon Impulsivity. Post-hoc analyses revealed that females with childhood trauma exposure and cocaine use had significantly greater impulsivity than all other groups (all FDR-corrected $p \leq 0.05$). CONCLUSION: Our findings indicate that the heightened impulsivity typically attributed to cocaine dependence has both sex- and trauma- related influences. Future work will evaluate how these factors collectively influence the functional neurocircuitry subserving risk-taking behaviors.

Willing to present orally: No

Financial Support: Supported by: R01DA019999, T32DA022981, F30DA043928 , R25GM083247.

Name of Sponsor (If you are NOT) a CPDD Member: Clinton Kilts

Email Address of Sponsor : CDKilts@uams.edu

Prefix: Ms.

First Name: Devin

Middle Initial: M.

Last Name: Guillory

Degrees: MA MD Ph.D etc:: MS

Email: dguillory@uams.edu

Company Affiliation: University of Arkansas for Medical Sciences

Mailing Address: 4710

Address 2: 4301 W. Markham St.

City: Little Rock

State: AR

Zip/Postal: 72205

Country: United States

Phone: 601-668-5223

ID: 417
Buprenorphine in the United States: Motives for abuse, misuse, and diversion

Howard Chilcoat, Indivior, Inc., howard.chilcoat@indivior.com

---

Abstract Category: Literature Review

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM: Although there are concerns about abuse, misuse, and diversion of buprenorphine, a pharmacotherapy for opioid use disorder (OUD), there is an important need to understand motives for use of illicit buprenorphine. METHODS: A search of the medical literature was conducted to identify motives for buprenorphine abuse, misuse, and diversion within the United States. Articles were identified via MEDLINE (via PubMed), searching for the combination of “buprenorphine” and terms related to “abuse” (e.g., to get high), “misuse” (e.g., to manage opioid withdrawal symptoms or achieve or maintain abstinence from other opioids), and "diversion” (e.g., selling or giving away), and reference libraries provided by a subject matter expert. Studies included were required to have reported specific motives for buprenorphine abuse, misuse, or diversion. RESULTS: A total of 775 titles and abstracts were screened for inclusion, 61 full publications were reviewed, and 18 studies met inclusion criteria. Most studies (11 of 15 with estimates of abuse or misuse) indicated 50%–100% of persons reporting use of illicit buprenorphine did so for reasons related to misuse; a much smaller percentage of study respondents (0%–-70%) reported using buprenorphine for reasons related to abuse. The predominant reasons cited for buprenorphine misuse were self-treatment for OUD and management of withdrawal symptoms. Six studies reported inability to access treatment as a driver of buprenorphine misuse. Conclusion: The majority of respondents engaging in illicit buprenorphine use did so for reasons related to misuse, rather than abuse. This suggests illicit buprenorphine use may often be motivated by use of buprenorphine for self-treatment of OUD. This is consistent with the established gap between OUD treatment need and availability. Attenuation of policy-related barriers and increased adoption of buprenorphine by the medical community are critical tools in the continued effort to reduce the burdens associated with opioid use disorder.

Willing to present orally: Yes

Financial Support: Indivior, Inc.

Prefix: Dr.

First Name: Howard

Middle Initial: D.

Last Name: Chilcoat

Degrees: MA MD Ph.D etc:: Sc.D.

Email: howard.chilcoat@indivior.com

Company Affiliation: Indivior, Inc.

Contact Title: Head, Epidemiology

Mailing Address: 10710 Midlothian Turnpike, Suite 430

City: Richmond

State: VA

Zip/Postal: 23235

Country: United States

Phone: (804) 594-1885

Fax: (804) 423-8952

Membership Year: 1997

Sponsor: James C. Anthony & Chris-Ellyn Johnson

Travel Award: 1994

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

Date of Membership: changed from Reg. to Fellow off the BOD/18

ID: 418
Can we reach and maintain a low population viral load among PWID in low-middle income settings? A longitudinal population-based assessment in Hai Phong, Vietnam

Nicolas Nagot, University of Montpellier, n-nagot@chu-montpellier.fr

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: AIDS/Immune

Abstract: AIMS: Achieving a low and sustained population viral load is a key component towards HIV elimination among people who inject drugs. Unfortunately, this population-based outcome is rarely captured by Monitoring and Evaluation of HIV care programs. We aimed at assessing, at the population level, the mid and long-term HIV outcomes of PWID in a low-middle income setting such as Hai Phong, Vietnam. METHODS: Self-declared PWID with injections skin marks and heroin detected in urine were eligible in 2 respondent-driven sampling surveys conducted in 2016 (RDS16) and 2017 (RDS17), and benefited from systematic HIV testing. All HIV-infected participants were proposed to be enrolled in a cohort with bi-annual follow-up consisting of a face-to-face questionnaire, drug urine test and plasma viral load. RDS and all visits took place in 2 community-based organisations (CBO) offices. The CBO activities included harm reduction sessions and regular participants support for accessing to government-led HIV clinics (universal ART) and methadone clinics. RESULTS: From the 412 and 390 HIV-infected RDS16 and RDS17 participants, 589 overall were enrolled in the cohort. At baseline, 95% of participants were males, aged 40 on average. All were injecting heroin with a median of 2 injections per day, and 29% reported being on methadone. The median CD4 cell count was 455/μL, 78.2% of all participants had an undetectable viral load. At 12 and 24 months, the follow-up rate was 88% and 81%, 73% and 78% were on methadone, and 84.5% and 87.4% had an undetectable viral load, respectively. Two-third of dropouts were admitted in drug rehabilitation centers or jailed. CONCLUSIONS: A low population viral load can be achieved and maintained among PWID in settings where CBO support is very strong, where methadone is accessible and ART provided universally. However, the maintenance of ART in closed setting is crucial.

Willing to present orally: Yes

Financial Support: This study is funded primarily by the NIDA, with some co-funding from France ANRS.

Name of Sponsor (If you are NOT) a CPDD Member: Don des Jarlais

Email Address of Sponsor : don.desjarlais@nyu.edu

Prefix: Dr.

First Name: Nicolas

Last Name: Nagot

Degrees: MA MD Ph.D etc:: MD, Ph.D

Email: n-nagot@chu-montpellier.fr

Company Affiliation: University of Montpellier

Mailing Address: 60 rue de Navacelle

City: Montpellier

State: France

Zip/Postal: 34394

Country: France

Phone: +33 4 67 33 89 70

ID: 419
The perils of complacency: Failing to maintain very low HIV incidence among persons who inject drugs in high- and middle-income countries

Jonathan Feelemyer , New York University, Jonathan.Feelemyer@mountsinai.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: Aims: Injection drug use has driven HIV epidemics in many countries throughout the world. Implementation of "combined prevention and care," including needle/syringe programs, medication assisted treatment, and antiretroviral treatment has led to "ending HIV epidemics" (reducing HIV incidence to 1/100 person-years) in many high-income and some middle-income settings. Despite these successes, HIV outbreaks have recently occurred in multiple high-income settings. Methods: Using a common template for data collection, we conducted a comparative analysis of HIV outbreaks in Athens, Greece; Bucharest, Romania; Dublin, Ireland; Glasgow, Scotland; Luxembourg: Saskatchewan, Canada; Scott County Indiana, USA; and Tel-Aviv, Israel. Using large serial cross- sectional surveys and cohort studies (N=2000+/site), we also assessed the potential for resurgence of HIV transmission in a middle-income setting (Haiphong, Vietnam) and high-income setting (New York City). Results: The HIV outbreaks all had increases in incidence by a factor of 10 or more. The comparative analysis of HIV outbreaks identified several factors that occurred in the majority of outbreaks: community economic and program funding problems, rapid changes in drug use patterns, and, most importantly, complacency among public officials, health authorities, and PWID themselves with respect to HIV transmission. Changes in drug use patterns have occurred in Haiphong (increased methamphetamine use) and in New York (increased opioid analgesic use) but HIV transmission has remained low. Estimated HIV incidence in Haiphong is 0.1/100 person-years and 0.04/100 person-years in New York, with variation over the last 5 years. Conclusions: Maintaining low HIV incidence requires continuing prevention efforts. Areas with current low HIV incidence among PWID should be prepared to identify and rapidly respond to potential new outbreaks of HIV. Monitoring patterns of drug use should be a critical component of such preparation.

Willing to present orally: Yes

Financial Support: This work was supported by grants from the ARNS (France) 12299 and NIDA (US) 1R01DA041978-01. The funding agencies had no role in designing the research, data analyses and preparation of the report.

Name of Sponsor (If you are NOT) a CPDD Member: Don Des Jarlais

Email Address of Sponsor : don.desjarlais@nyu.edu

Prefix: Mr.

First Name: Jonathan

Last Name: Feelemyer

Degrees: MA MD Ph.D etc:: MS

Email: Jonathan.Feelemyer@mountsinai.org

Company Affiliation: New York University

Mailing Address: 665 Broadway

Address 2: Suite 800

City: New York

State: NY

Zip/Postal: 10012

Country: United States

Phone: 212-992-3795

ID: 420
Get waivered Texas: Expanding buprenorphine treatment capacity for medication assisted treatment for opioid use disorder

Suyen Schneegans, University of Texas Health Science Center, warzinski@uthscsa.edu

---

Abstract Category: Program Descriptions

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: INTRODUCTION. The use of buprenorphine, a synthetic opioid and partial mu agonist, in medication-assisted treatment (MAT) for opioid use disorder (OUD) has grown substantially since receiving FDA approval in 2002. When compared to methadone, buprenorphine holds less risk for overdose and can be administered more freely in both public and private office-based clinics. Nonetheless, the use of buprenorphine remains a largely underutilized resource in treating OUD; increasing the number of buprenorphine waivered providers is one way to improve evidence-based treatment accessibility in hopes of counteracting the consistent rise of annual opioid related deaths. From 2002-2017, SAMSHA reports that less than 2,500 providers in Texas received the necessary training to administer buprenorphine medication while the number of opioid related overdose deaths continued to increase by a substantial 7.4% from 2015-2016 alone. AIMS. Using implementation science, project aims include: 1) provide access to buprenorphine waiver trainings to target regions and health care providers across Texas, including rural areas and 2) facilitate completion of all DATA-2000 waiver requirements. OBJECTIVES. The following objectives will be implemented over the span of 9 months: 1) identify high priority regions and healthcare settings to implement training; 2) promote awareness of the need for buprenorphine waivered health care professionals; 3) provide DATA-2000 (DEA X) training (8 hours for physicians; 24 hours for nurse practitioners and physician assistants) and 4) facilitate submission and completion of requirements to SAMHSA. CONCLUSION. Increasing treatment capacity by providing access to training in targeted areas and facilitating completion of DEA X requirements helps redress the current disparity that occurs because of decreased accessibility in underserved and rural areas; areas of which make up a large portion of the Texas landscape.

Willing to present orally: No

Financial Support: Texas Health and Human Services Commission (HHS000307200001)

Name of Sponsor (If you are NOT) a CPDD Member: Angela Stotts, Ph.D.

Email Address of Sponsor : Angela.L.Stotts@uth.tmc.edu

Prefix: Ms.

First Name: Suyen

Last Name: Schneegans

Degrees: MA MD Ph.D etc:: MA

Email: warzinski@uthscsa.edu

Company Affiliation: University of Texas Health Science Center

Mailing Address: 7703 Floyd Curl Drive

City: San Antonio

State: TX

Zip/Postal: 78229

Country: United States

Phone: 210-562-4680

ID: 421
Family interventions addressing expressed emotions in opioid substitution therapy (OST)

Vasudha Singh, Dept.of Psychiatry & NDDTC,AIIMS,New Delhi, vasudhasingh3211@gmail.com

---

Abstract Category: Theoretical/Commentary

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Other

Other Topic: Family Interventions addressing EE in OST

Abstract: Abstract: Aim: Substance use disorder is of concern to nations due to its chronic and relapsing nature. Opioid Substitution Therapy (OST) is wildly used intervention for management of opioid dependence. Among factors affecting improved outcome in opioid dependence are family factors wherein family's Expressed Emotions (EE) found to have significant impact on treatment outcome in substance use disorders.Therefore aim was to review family interventions in OST individuals addressing EE. Method: Database of Pub med, Medline, CINAHL and Cochrane Library were searched,'EE', 'PSYCHIATRIC ILLNESS' resulting in 1500 Studies, with 130 Studies on EE and related variables, highlighting expressed emotion a contemporary topic of interest to researchers. 'EE' 'Substance Use Disorders' resulted in 20 studies among which 11 were reviewed. On comparison found that lesser research focus on important domain of Expressed Emotions in substance use disorder. Further 'Family Intervention'; 'Opioid Dependence'; 'Psychosocial Intervention' searched similarly as above resulted in 94 Studies amongst which 20 were reviewed. Conclusion: Understanding EE in the context of SUD is a relatively newer research area unexplored to a large extent and need to be researched. Existing literature points to the role of EE in relapse, course and outcome of SUD. Limited literature is available on opioid dependence and its treatment (including OST) which undoubtedly need to be addressed.

Willing to present orally: Yes

Financial Support: All India Institute of Medical Sciences,AIIMS,New Delhi,India

Name of Sponsor (If you are NOT) a CPDD Member: William W. Stoops,Ph.d.

Email Address of Sponsor : william.stoops@uky.edu

Prefix: Mrs.

First Name: Vasudha

Last Name: Singh

Degrees: MA MD Ph.D etc:: Ph.D Scholar

Email: vasudhasingh3211@gmail.com

CC Email: vasudhairya@live.in

Company Affiliation: Dept.of Psychiatry & NDDTC,AIIMS,New Delhi

Mailing Address: 4096,Fourth Floor,Teaching Block,Dept.of Psychiatry, & NDDTC,Ansari Nagar,AIIMS

City: New Delhi

State: Delhi

Zip/Postal: 110029

Country: India

Phone: 9837464555

ID: 422
Misclassification may contribute to overestimates of use of specific opioid products

Stevan Severtson, Rocky Mountain Poison & Drug Center, Geoff.Severtson@rmpdc.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: Aim: Understanding the extent of misuse of specific opioid products is valuable in making policy decisions. However, self-reports of product use and misuse are subject to misclassification. Product misclassification was assessed by comparing self-reported past year use estimates to sources that track product dispensing and diversion. Methods: Estimates of past year use from the 2017 National Survey on Drug Use and Health were compared to IQVIA projections of prescriptions dispensed through the retail channel in 2017. Estimates of active pharmaceutical ingredients (oxycodone and hydrocodone) and specific products (OxyContin® and Zohydro® ER) were compared between data sources. Researched Abuse, Diversion and Addiction-Related Surveillance (RADARS®) System Poison Center Program pill identification calls from law enforcement and Drug Diversion Program cases were examined to determine whether discrepancies in estimates between data sources could be attributed to diversion. Results: Estimates of individuals using oxycodone or hydrocodone in the past year were lower than prescriptions dispensed. By contrast, an estimated 9.1 million individuals used OxyContin in the past year but only 3.4 million prescriptions were dispensed. An estimated 284 thousand individuals used Zohydro ER in the past year but only 74 thousand prescriptions were dispensed. The distribution of pill identification calls and drug diversion cases were similar to prescriptions dispensed: OxyContin accounted for 6.7% of oxycodone prescriptions, 4.9% of oxycodone pill identification calls, and 6.0% of oxycodone diversion cases; Zohydro ER accounted for less than 1% of hydrocodone prescriptions, pill identification calls, and diversion cases. Conclusion: The finding that past-year use estimates exceed prescriptions dispensed without greater levels of diversion suggests there may be more false positive endorsements of branded products on self-report surveys.

Willing to present orally: Yes

Financial Support: The RADARS System is supported by subscriptions from pharmaceutical manufacturers, government and non-government agencies for surveillance, research and reporting services. RADARS System is the property of Denver Health and Hospital Authority, a political subdivision of the State of Colorado. Denver Health retains exclusive ownership of all data, databases and systems. Subscribers do not participate in data collection nor do they have access to the raw data.

Name of Sponsor (If you are NOT) a CPDD Member: Richard Dart

Email Address of Sponsor : Richard.Dart@rmpdc.org

Prefix: Dr.

First Name: Stevan

Middle Initial: Geoff

Last Name: Severtson

Degrees: MA MD Ph.D etc:: Ph.D

Email: Geoff.Severtson@rmpdc.org

Company Affiliation: Rocky Mountain Poison & Drug Center

Mailing Address: 1391 Speer Blvd

City: Denver

State: CO

Zip/Postal: 80204

Country: United States

Phone: 303-389-1251

ID: 423
The effects of pre-encoding THC, psilocybin, and DXM on recollection and familiarity

Manoj Doss, Johns Hopkins University, mdoss3@jhmi.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Psychedelic, dissociative hallucinogen, cannabinoid

Topic: Behavior

Abstract: AIM: Although psychedelic-like drugs are known to impair the encoding of episodic memories, it is unclear how they specifically modulate dissociable component processes of episodic memory like recollection and familiarity. Recollection is a hippocampally-dependent retrieval of details and associations related to a memory, whereas familiarity is a cortically-dependent, acontextual feeling of knowing that an event occurred. Here we investigated the impact of three psychedelic-like drugs on recollection and familiarity by reanalyzing data with a model that can estimate these processes. METHODS: Memory confidence data from a study of the cannabinoid THC (15 mg; N = 24) and a study of a classic psychedelic (psilocybin, 10, 20, and 30 mg/70 kg) and a psychedelic-like drug (dextromethorphan, 400 mg/70 kg; N = 20) were submitted to dual-process signal detection analyses. In both studies, healthy adults received the drug or placebo before encoding to-be-remembered stimuli. RESULTS: Compared to placebo, all three drugs impaired recollection. Furthermore, there was evidence that dextromethorphan but not THC or psilocybin impaired familiarity. Interestingly, the effect of psilocybin was not dose-dependent. CONCLUSION: These findings are consistent with pharmacologically similar drugs. For example, ±3,4-methylenedioxymethamphetamine, a 5-HT2A agonist like psilocybin, selectively impairs recollection, and ketamine, an NMDA antagonist like dextromethorphan, impairs both recollection and familiarity. Impairments of both recollection and familiarity suggests a potential mechanism underlying densely amnestic states such as ‘blackouts’ and ‘K-holes’ that are encountered with NMDA antagonists but not cannabinoids or classical psychedelics. Although several different classes of psychedelic-like drugs are being explored for their clinical potential, drugs that produce densely amnestic states may be less warranted for concurrent psychotherapy, as new learning may be particularly impaired by the perturbation of multiple memory systems. These findings highlight how differential drug effects on episodic memory processes may help explain the varying phenomenology and clinical utility of psychedelic-like drugs.

Willing to present orally: Yes

Financial Support: R01DA03889, 5T32 DA007209, R03DA042336, R01DA035277, DA02812

Name of Sponsor (If you are NOT) a CPDD Member: Roland Griffiths

Email Address of Sponsor : rgriff@jhmi.edu

Prefix: Dr.

First Name: Manoj

Last Name: Doss

Degrees: MA MD Ph.D etc:: MSc, MA, PhD

Email: mdoss3@jhmi.edu

Company Affiliation: Johns Hopkins University

Mailing Address: 5510 Nathan Shock Dr

Address 2: BPRU

City: Baltimore

State: MD

Zip/Postal: 21224

Country: United States

Phone: 4693875797

ID: 424
Opioid overdose death following justice involvement and hospitalization: Using multiple data sources to detect individuals at highest risk

Noa Krawczyk, Johns Hopkins Bloomberg School of Public Health, Department of Mental Health, noa.krawczyk@jhu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: AIM: Opioid overdose death following justice involvement and hospitalization: Using multiple data sources to detect individuals at highest risk Background: Justice-involved individuals experience especially high rates of opioid addiction and overdose. While risk of death has been found to be highest after release from incarceration, less is known about specific characteristics of justice-involved individuals that may put them at greatest risk of overdose death. Methods: Data on arrests, incarcerations, and parole/probation records for drug and property crimes in Maryland were obtained from the Maryland Department of Public Safety and Correctional Services for the years 2013-2016. Data were linked at the person-level to hospitalization records and opioid overdose death records from the state of Maryland for the same years. A risk factor analysis using logistic regression was performed to determine which characteristics of justice-involved individuals were associated with greater odds of experiencing an overdose death. Results: 89,591 adults had criminal-justice records for drug or property crimes in Maryland during 2013-2016. Of these, 4,108 (4.59%) were hospitalized for a non-fatal opioid overdose, and 519 persons (0.58%) went on to experience an opioid overdose death during these years. Demographic factors associated with risk of overdose death included being female, older, and white. Criminal justice related factors included having a greater number of arrests, having arrests exclusively related to low-level drug crimes, having a greater number of parole/probation cases, and not having served an incarceration sentence during this time. Justice-involved persons who had a hospitalization for an opioid use disorder (OR:7.16[95% C.I: 6.01,8.52] or overdose (OR: 7.38[95% C.I: 6.04,9.01]) during these years had greatest relative risk of opioid overdose death. Conclusion: While justice-involved individuals overall experience greater overdose death rates than the general population, certain demographic, criminal-justice, and health service characteristics may help identify persons exhibiting particularly high risk. Linking administrative databases to track long-term

Willing to present orally: Yes

Financial Support: Study was funded by a Harold Rogers Prescription Drug Monitoring Program (PDMP) grant awarded by the U.S. Department of Justice (DOJ), Office of Justice Programs (OJP), and Bureau of Justice Assistance (BJA) Research reported in this publication was supported by the National Institute On Drug Abuse of the National Institutes of Health under Award Number F31DA047021

Prefix: Ms.

First Name: Noa

Last Name: Krawczyk

Email: noa.krawczyk@jhu.edu

CC Email: noakra@gmail.com

Company Affiliation: Johns Hopkins Bloomberg School of Public Health, Department of Mental Health

Mailing Address: 624 N. Broadway

Address 2: Room 888

City: Baltimore

State: MD

Zip/Postal: 21205

Country: United States

Phone: 9146296798

Membership Year: 2017

Sponsor: Dr. Eric Strain, PhD

Travel Award: NIDA Diretor's 2018

Research Interests: Psychiatric/Medical Morbidity,Treatment

ID: 425
The relative contribution of behavioral economic measures in predicting cocaine severity and treatment response

Jin Yoon, University of Texas Health Science Center, jin.ho.yoon@uth.tmc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Behavior

Abstract: Aim: The application of behavioral economic measures such as drug demand and delay discounting have greatly increased our understanding of the mechanisms underlying substance use disorders (SUDs). The purpose of the current study was two-fold. First, we assessed how baseline measures of cocaine demand and monetary delay discounting were related to treatment outcomes for cocaine use disorder (CUD). Second, we compared baseline behavioral economic measures with measures of cocaine use severity. Methods: Participants consisted of treatment seeking individuals (N = 56) with CUD receiving behavioral counseling in conjunction with contingency management (CM). Participants completed a cocaine purchasing task and computerized delay discounting task. Purchasing task data were fit to an exponentiated model of demand, and discounting data were fit to a hyperbolic model. Results: High rates of systematic responding were observed for both the demand (97%) and discounting (93%) task. Derived intensity of demand (Q0) and maximum money spent (Omax) were both highly correlated with observed values (1.00 and 0.95, respectively). Q0 was significantly lower among CM treatment responders (i.e., those achieving two consecutive weeks of biochemically confirmed cocaine abstinence) compared to non-responders. No significant differences were observed for other indices of demand nor delay discounting. Comparison across baseline behavioral economic measures revealed that measures of demand (Q0, elasticity, essential value, Pmax, Omax) were significantly correlated with each other. Only Q0 was significantly correlated with log k. Comparison of baseline behavioral economic measures revealed significant correlations with different measures of cocaine use severity (KMSK scores, days used in the last 30, etc.). Conclusion: Demand and delay discounting measures appear to be associated with different aspects of cocaine use. The utility of behavioral economic measures to predict treatment outcome may be beneficial for individually tailoring treatments in the future.

Willing to present orally: No

Financial Support: This study was supported by NIH grant R01DA039125.

Prefix: Dr.

First Name: Jin

Middle Initial: H

Last Name: Yoon

Degrees: MA MD Ph.D etc:: Ph.D.

Email: jin.ho.yoon@uth.tmc.edu

Company Affiliation: University of Texas Health Science Center

Contact Title: Assistant Professor

Mailing Address: 1941 East Road, RM 1308

City: Houston

State: TX

Zip/Postal: 77054

Country: United States

Phone: 713 486-2796

Membership Year: 2007

Sponsor: Drs. Stephen Higgins and Sarah Heil

Date of Membership: reinstate at the 79th meeting

ID: 426
A streamlined approach to the acquisition, analysis and databasing of data from drug self-administration sessions

Hanna Wetzel, University of Cincinnati, belltf@ucmail.uc.edu

Abstract Category: Theoretical/Commentary

Abstract Detail: Animal Study

Drug Category: Stimulants

Topic: Behavior

Abstract: Aim: Self-administration behavior is a frequently used model of addiction. Commonly, data from self-administration experiments are reported as the total number of lever-presses or self-injections per unit time. However, only using this single number can result in misinterpretation of data, as it blends the different phases of self-administration including loading and maintained self-administration. Delineating between these phases, as well as plotting calculated concentration over time can provide a more pharmacologically appropriate interpretation of self-administration data. We have previously developed a Med-PC program for execution of self-administration sessions that records all information needed for this analysis, but processing of the data remains difficult. Therefore, we have developed a Python based program to rapidly analyze and plot self-administration data. Methods: The Med-PC program described previously was used to run and record data from self-administration sessions. The data was recorded as a .txt file containing event codes corresponding to time stamps and calculated cocaine concentrations. A python script (available in 2 and 3) was written that extracts and formats the data (no Med-PC needed). The loading phase was determined by identifying the peak in the second derivative. Options to create graphs including cumulative event plots for self-injections, and concentration over time were included. Data and analysis results can be exported into .csv file. In a GUI, users can enter data-basing keywords and indicate if sessions should be excluded from meta-analysis. A separate batch processing script can be used to extract user-specified data from the resulting .csv files based on parameters like rat number, dose, date, experiment, etc. Conclusions: This program represents a novel tool to streamline the analysis of self-administration data. In conclusion, the combination of our previously developed MED-PC program and this data analysis program allow for researchers to get more out of their data faster and easier.

Willing to present orally: Yes

Financial Support: Supported by NIDA grant U01DA039550

Name of Sponsor (If you are NOT) a CPDD Member: Andrew Norman

Email Address of Sponsor : normanab@ucmail.uc.edu

Prefix: Dr.

First Name: Hanna

Middle Initial: N.

Last Name: Wetzel

Degrees: MA MD Ph.D etc:: Ph.D

Email: belltf@ucmail.uc.edu

CC Email: dasenbhn@ucmail.uc.edu

Company Affiliation: University of Cincinnati

Mailing Address: 231 Albert Sabin Way

City: CINCINNATI

State: Ohio

Zip/Postal: 45267

Country: United States

Phone: 4196183031

ID: 427
Marijuana use modifies the association between post-traumatic stress disorder and non-fatal overdose: Results from the IMPACT study

Samantha Fisher, New York University College of Global Public Health, samantha.fisher626@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Epidemiology

Abstract: Aims: According to the World Health Organization, approximately 46% of individuals who used opioids experienced a non-fatal overdose in 2016. Previous studies have identified a higher risk of overdose among individuals with mental health disorders. Some evidence suggests that marijuana may be an efficacious treatment for PTSD and potentially useful for reducing overdose morbidity and mortality, but few studies have examined the moderating effect of marijuana use on the association between PTSD and overdose. Methods: This study included 1,399 people who currently or formerly used heroin, crack, cocaine, or methamphetamine from the Inner-City Mental Health Study Predicting HIV/AIDS, Club and other Drug Transitions (IMPACT) study recruited between January 2005 and December 2008 in four New York City boroughs. The association between PTSD (as measured by the PCL-C) and non-fatal overdose (measured using yes/no survey response question; past 6 months) was examined using multivariable logistic regression controlling for race, history of arrest and incarceration, sex, age, alcohol use and income level and stratified by marijuana use (past 6 months). Results: Among marijuana non-users, individuals with PTSD had 3.46 (95% confidence interval [CI]: 1.05-11.39) times greater odds of having overdosed in the past 6 months than those who did not have PTSD. However, there was no association between PTSD and overdose among marijuana users (odds ratio= 0.87, 95% CI:0.31-2.37). Conclusion: Results suggest that marijuana may help mitigate the occurrence of overdose among those with PTSD. There is need for more research regarding marijuana as treatment for mental health disorders and its role in reducing drug-related overdoses among individuals with these disorders.

Willing to present orally: Yes

Financial Support: National Institute on Drug Abuse (NIDA grants DA018061 and DA017020) and the National Institute on Mental Health (NIMH grant MH068192)

Prefix: Ms.

First Name: Samantha

Last Name: Fisher

Degrees: MA MD Ph.D etc:: MPH

Email: samantha.fisher626@gmail.com

Company Affiliation: New York University College of Global Public Health

Mailing Address: 21 Brackett Street

City: Boston

State: Massachusetts

Zip/Postal: 02135

Country: United States

Phone: 2098140559

ID: 428
Sex differences in subjective effects of cigarette-smoking following nicotine patch

Yasmin Zakiniaeiz, Yale University, yasmin.zakiniaeiz@yale.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Sex Differences

Abstract: Aim: Sex differences exist in the subjective effects of tobacco smoking. A key difference is that men experience greater reward from nicotine and are more sensitive to nicotine levels in cigarettes than women. This sex difference contributes to lower treatment efficacy for women, especially for nicotine replacement therapies, i.e. nicotine patch. The goal of this study was to investigate subjective effects of smoking a cigarette following nicotine and placebo patch treatment in male and female smokers. Methods: Twenty-two tobacco smokers (11 female) received a nicotine patch for 1-week and a placebo patch for 1-week in a randomized, counter-balanced order. Male and female smokers were matched on cigarettes smoked per day, years smoked and nicotine dependence level. Following 1-week on each patch and overnight abstinence, participants smoked a cigarette and reported levels of craving and enjoyment of the cigarette (on a 0-100 scale) at t=-1, 1, 3, 5, 10, 15, 25, 35 and 50 minutes relative to cigarette smoking. We compared mean subjective scores of craving and enjoyment relative to baseline between male and female smokers under nicotine and placebo patch conditions using t-tests. This study was conducted in the context of a neuroimaging study. Results: Preliminary analyses showed that men and women report similar scores of relief of craving after smoking a cigarette following 1-week on nicotine (p=0.91) and placebo (p=0.90) patches. Men report higher scores of enjoyment (15, 35 and 50 minutes) post-cigarette smoking on nicotine patch compared to placebo patch (p 0.26). Conclusion: These findings suggest that men are more sensitive to nicotine levels in a nicotine patch and experience prolonged enjoyment of cigarette smoking following abstinence. We are currently examining imaging-based biomarkers of smoking's subjective effects under nicotine and placebo patch conditions.

Willing to present orally: No

Financial Support: Research was supported by R01DA038709-03 (Morris), T32DA022975 (Zakiniaeiz).

Prefix: Dr.

First Name: Yasmin

Last Name: Zakiniaeiz

Degrees: MA MD Ph.D etc:: PhD

Email: yasmin.zakiniaeiz@yale.edu

Company Affiliation: Yale University

Mailing Address: 330 Cedar Street

Address 2: Suite LMP85

City: New Haven

State: CT

Zip/Postal: 06519

Country: United States

Phone: 646-981-3355

Membership Year: 2017

Sponsor: Dr. Marc Potenza, PhD

Travel Award: ECI2017, W&G 2018

Research Interests: Behavioral Pharmacology,Neurobiology

ID: 429
Social support and opioid use among pregnant and parenting women

Laura Gonzalez Paz, University of Florida, laurelgon@outlook.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Sex Differences

Abstract: AIM: Recently, maternal opioid use (OU) and associated negative health outcomes have increased. High levels of social support (SS) have been associated with lower rates of drug use among women. However, little is known about how SS impacts OU among pregnant and parenting women. METHODS: We used data from HealthStreet, a community engagement program, about women's demographics, use of social media and text messaging, medical and drug use history, children's ages, pregnancy status and social support. The SS measure was a 3-item 5 point Likert scale that asked if women had a person to talk to about important things, a person to rely on for practical things like doing favors, and satisfaction with the support they receive in their life. Women were categorized as having low SS if their total score (sum of the 3-items) was below the group's average total score and as having high SS if it was above. The 623 pregnant or parenting women were categorized into 3 outcome groups: Never used (NU), Past 30-day users (P30DU), and Lifetime users (LTU) of opioids. We used T and chi-squared tests to assess the association between each variable and OU and multinomial logistic regression to calculate odds ratios (OR). Analysis was conducted in R. RESULTS: Among women, 44.2% had NU, 44.9% were LTU, and 10.9% were P30DU. Women with high SS were just as likely to be P30DU (OR 1.2, 95% CI 0.6- 1.7) and LTU (OR 1.4, 95% CI 1.0- 1.7) of opioids compared to those with low SS. However, women with depression were 2.3 (95% CI 1.7,-2.9) times more likely to be P30DU. CONCLUSION: Our results indicate that mental health may play a more important role than SS in determining use of OU among this subpopulation. Further research is needed to examine this relationship.

Willing to present orally: Yes

Financial Support: This research was supported by the NIDA T32 training grant at the UF Substance Abuse Training Center in Public Health from the National Institutes of Health (T32DA035167). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Name of Sponsor (If you are NOT) a CPDD Member: Linda B. Cottler

Email Address of Sponsor : lbcottler@ufl.edu

Prefix: Ms.

First Name: Laura

Middle Initial: M

Last Name: Gonzalez Paz

Degrees: MA MD Ph.D etc:: BS

Email: laurelgon@outlook.com

Company Affiliation: University of Florida

Mailing Address: 2004 Mowry Road PO Box 100231

City: Gainesville

State: FL

Zip/Postal: 32610

Country: United States

Phone: 561-860-6240

ID: 430
Gabapentin exposure and neonatal abstinence syndrome among methadone-exposed neonates

Dennis Hand, Thomas Jefferson University, dennis.hand@jefferson.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Perinatal

Abstract: Aim. Gabapentin is increasingly prescribed for anxiety, sleep, and restless leg syndrome among patients receiving medications for opioid use disorder, including pregnant women. Recent case reports describe neonatal withdrawal symptoms among those gestationally co-exposed to gabapentin and opioids, and a Medicaid database study of prescription opioid exposed neonates found gabapentin to be the psychotropic drug most strongly associated with increased risk of neonatal abstinence syndrome (NAS). Little is known of how gabapentin may affect NAS among neonates co-exposed to gabapentin and methadone. Method. Data were extracted from medical records of women who delivered between 2016-2017 while receiving comprehensive methadone treatment. Use of gabapentin and other psychoactive drugs was defined as having a prescription or positive urine toxicology. Medication/drug use was categorized by the trimester when use occurred. Maternal demographics, methadone dose at delivery, neonatal sex, and gestational age at delivery were also extracted. Chi-square, correlations, t-tests, and multiple regressions were used to test associations between maternal and neonatal characteristics and NAS pharmacotherapy receipt and neonatal length of stay (nLOS). Results. Neonates co-exposed to methadone and gabapentin in the third trimester were more likely to need pharmacotherapy compared to non-gabapentin-exposed neonates (75% vs. 25%, $p = .01$), but mean nLOS did not differ significantly (22.6 vs. 15.1 days, $p = .20$). Mean methadone dose did not differ between neonates who did and did not receive pharmacotherapy (142.7mg vs. 126.2mg, $p = .23$), but dose was positively correlated with nLOS ($r=.23$, $p = .04$). No other psychoactive medication/drug was associated with pharmacotherapy or nLOS. In multiple regressions, gabapentin remained a predictor of pharmacotherapy (aOR=3.8, 95% CI=1.1-13.8). No variables predicted nLOS. Conclusions. Neonates co-exposed to gabapentin and methadone in the third trimester are more likely to need for pharmacotherapy for NAS. Future research should examine the risks and benefits of gabapentin prescription and how to address non-medical gabapentin use during methadone maintenance in pregnancy.

Willing to present orally: Yes

Financial Support: None

Prefix: Dr.

First Name: Dennis

Middle Initial: J.

Last Name: Hand

Degrees: MA MD Ph.D etc:: Ph.D.

Email: dennis.hand@jefferson.edu

Company Affiliation: Thomas Jefferson University

Mailing Address: 1233 Locust Street

Address 2: Suite 401

City: Philadelphia

State: PA

Zip/Postal: 19107

Country: United States

Phone: 215-955-8419

Membership Year: 2014

Sponsor: Dr. Sarah Heil, Ph.D. and Mishka Terplan, MD

Research Interests: Behavioral Pharmacology,Treatment

Date of Membership: 2017

ID: 431
Altered resting-state functional MRI connectivity following chronic cocaine self-administration in nonhuman primates

Stephen Kohut, McLean Hospital, Harvard Medical School, skohut@mclean.harvard.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Stimulants

Topic: Imaging

Abstract: AIM: Long-term cocaine use is associated with a variety of neural and behavioral deficits that impact daily functioning. The present study aimed to determine how chronic cocaine self-administration by squirrel monkeys alters resting-state functional MRI (fMRI) connectivity in the dorsal anterior cingulate (dACC) and putamen - two brain regions involved in cognitive function and motoric behavior. METHODS: Six adult male squirrel monkeys were trained to self-administer intravenous cocaine under a FR schedule of reinforcement. The unit dose that maximized average daily intake (0.32 mg/kg/inj) was used to maintain self-administration over a 9-month period. Six additional monkeys that had not received drug treatment for approximately 1.5 years served as drug-free controls. Resting state fMRI imaging sessions were conducted in isoflurane-anesthetized monkeys at 9.4 Tesla; scans in cocaine-exposed monkeys were obtained 48-72-hrs after the last self-administration session. Functional connectivity maps were derived from seed regions placed in the left dACC and putamen. Total cocaine intake (mg/kg) over the 9-month period was correlated with beta coefficients from the two seed regions. RESULTS: Cocaine maintained robust self-administration with average 9-month intake of 433 mg/kg (range: 352-504 mg/kg). In the dACC seed, cocaine lowered resting-state connectivity with regions primarily involved in motoric behavior and increased connectivity with areas implicated in reward and cognitive processing. In the putamen seed, widespread decreases in connectivity were found between the putamen and other motor regions as well as with prefrontal areas that regulate higher-order executive function; increased connectivity was found with reward-related regions. Beta coefficients from the dACC were positively associated with total cocaine intake. CONCLUSIONS:These data indicate that chronic cocaine self-administration disrupts resting-state functional connectivity among brain regions involved in motor, reward, and cognitive processing and, in the dACC, appears to do so in a dosage-related manner.

Willing to present orally: Yes

Financial Support: This work was supported by NIH grants R21DA039301, K01DA035974, K01DA039306, S10RR019356, and by the Counter-Drug Technology Assessment Center (CTAC), an office within the Office of National Drug Control Policy (ONDCP), via Contract Number DBK39-03-C-0075 awarded by the Army Contracting Agency.

Prefix: Dr.

First Name: Stephen

Middle Initial: J.

Last Name: Kohut

Degrees: MA MD Ph.D etc:: Ph.D.

Email: skohut@mclean.harvard.edu

Company Affiliation: McLean Hospital, Harvard Medical School

Mailing Address: 115 Mill Street

City: Belmont

State: MA

Zip/Postal: 02478

Country: United States

Phone: (617) 855-2167

Membership Year: 2011

Sponsor: Dr. Anthony Riley and Dr. Nancy Mello

Research Interests: Behavioral Pharmacology,Pharmacology

ID: 432
Diversion of prescription stimulant drugs among 10-17-year-olds

Catherine Woodstock Striley, University of Florida, cstriley@ufl.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Adolescent

Abstract: AIM. Nonmedical use of prescription stimulants among adolescents is a major public health concern. In order to effectively reduce harm, comprehensive research on diversion is needed. Diversion is the illegal sharing or selling of prescription drugs including incoming only, outgoing only and both incoming and outgoing. Despite a growing body of literature on nonmedical stimulants use, there is limited data on diversion behavior among youth. The aim of this article is to use data from the Study of Non-Oral Administration of Prescription Stimulants (SNAPS), which assessed prescription stimulant use among adolescents across six US cities, to report on prescription stimulant diversion by use and misuse status. METHODS. In September 2018, SNAPS recruited 1,777 youth 10 to 17 years of age from urban, rural and suburban areas in six US cities across the three most populous states in the US using an entertainment venue intercept approach. Youth were asked about incoming diversion (stealing, buying or borrowing someone's prescription stimulant) and outgoing diversion (selling, trading, being asked to sell or trade). RESULTS. Among all youth, 11.9% met criteria for any diversion; 5.1% met criteria for outgoing diversion only, 2.9% met criteria for incoming diversion only and 3.9% met criteria for both. As expected, rates among stimulant users were much higher than among non-users; 48% of users reported any diversion behavior compared to 7.4% of non-users. Nearly one-third (32.1%) of youth reported up to 3 diversions vs 6.6% of non-users. CONCLUSION. These findings suggest that interrupting prescription stimulant diversion should include interventions for non-users as well as users.

Willing to present orally: Yes

Financial Support: This study was funded by Arbor Pharmaceuticals LLC

Prefix: Dr.

First Name: Catherine

Last Name: Woodstock Striley

Degrees: MA MD Ph.D etc:: MSW, Ph.D. MPE

Email: cstriley@ufl.edu

Company Affiliation: University of Florida

Mailing Address: 2004 Mowry Road, Campus Box 100231

City: Gainesville

State: FL

Zip/Postal: 32610

Country: United States

Phone: 3522735359

Fax: (352) 273-5365

Membership Year: 2003

Sponsor: Dr. Linda Cottler and Dr. Ted Cicero

Research Interests: Molecular Biology,Pharmacology

ID: 433
Machine learning identifies common and specific markers of alcohol, cannabis, and nicotine dependence

Jasmin Vassileva, Virginia Commonwealth University, jasmin.vassileva@vcuhealth.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Behavior

Abstract: AIM: The goal of this study was to identify behavioral markers that classify alcohol dependence (ALCD), cannabis dependence (CAND), and nicotine dependence (NICD) using machine-learning approaches. Based on our recent findings with opiate dependence (OPIAD) and stimulant dependence (STIMD) (Ahn & Vassileva, 2016), we expected to find both common and substance-specific predictors of dependence on different classes of drugs. METHODS: The sample included 595 participants (42 ALCD, 92 CAND, 187 NICD, 168 STIMD, and 159 OPIAD). LASSO penalized regression models with 10-fold cross validation were used to predict ALCD, CAND, and NICD based on 53 demographic, psychiatric, personality, and neurocognitive variables. Psychiatric measures included ADHD, conduct disorder, antisocial personality disorder, psychopathy, depression, and anxiety. Personality measures included impulsivity, sensation seeking, aggression, and anxiety sensitivity. Neurocognitive measures included Iowa Gambling, Cambridge Gambling, Immediate Memory, Delay Discounting, Balloon Analogue Risk, Go/No-Go, and Stop-Signal tasks. RESULTS: Machine-learning models achieved high out-of-sample classification accuracy (ALCD AUC=0.87; CAND AUC=0.84; NICD AUC=0.67). The impulsive/antisocial dimension of psychopathy was the only predictor common to all drug classes. Sensation seeking was a common predictor of ALCD and CAND, whereas depression was common to ALCD and NICD. Urgency uniquely predicted ALCD, trait anxiety and anxiety sensitivity predicted CAND, and affective/interpersonal aspects of psychopathy and aggression predicted NICD. Increased delay discounting was the only neurocognitive predictor of ALCD and a common predictor of ALCD and NICD. Reduced delay discounting and increased risk taking uniquely predicted CAND, whereas inattention and motor/action impulsivity uniquely predicted NICD. CONCLUSION: Current results reveal both common and substance-specific predictors of ALCD, CAND, and NICD. Overall, personality variables showed higher predictive utility than neurocognitive variables. Consistent with our earlier findings with OPIAD and STIMD, psychopathy was the only common predictor of ALCD, CAND and NICD, which suggests that it may be an important diagnostic marker for addiction, regardless of drug class.

Willing to present orally: Yes

Financial Support: This study was supported by the National Institute on Drug Abuse and the Fogarty International Center under award number R01DA021421 (JV).

Email Address of Sponsor : jasmin.vassileva@vcuhealth.org

Prefix: Dr.

First Name: Jasmin

Last Name: Vassileva

Degrees: MA MD Ph.D etc:: Ph.D.

Email: jasmin.vassileva@vcuhealth.org

Company Affiliation: Virginia Commonwealth University

Mailing Address: 203 E. Cary Street

Address 2: suite 202A

City: Richmond

State: VA

Zip/Postal: 23219

Country: United States

Phone: 804-828-5807

Sponsor: Dr. F. Gerard Moeller and Dr. Raul Gonzalez

Research Interests: Neurobiology,Prevention

Date of Membership: 11.16.18 approved

ID: 434
Cigarette use, ENDS use, and co-use among persons with mental health problems in the United States, 2014-2017: Will ENDS use impact the persistence of disparities in cigarette use by mental health status?

Renee Goodwin, The City University of New York and Columbia University, renee.goodwin@sph.cuny.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Dependence

Abstract: AIM: To investigate the relationship between mental health problems and cigarette use, ENDS use, and co-use among adults in the United States in 2017, and to examine trends in the prevalence of cigarette, ENDS and co-use among US adults with and without mental health problems from 2004-2017. METHODS: Data were drawn from the 2014 to 2017 National Health Interview Survey (NHIS), an annual cross-sectional study of US noninstitutionalized civilians ages 18 and older in all 50 states employing a multistage area probability design. The prevalence of cigarette use, ENDS use and co-use were estimated among those with and without serious psychological distress (SPD) from 2004-2017. RESULTS: In 2017, the prevalence of past-month cigarette use (and no ENDS use) was 32.7% among adults with SPD vs. 11.9% among those without SPD whereas 5.3% of those with SPD reported co-use of cigarettes and ENDS vs. 1.3% among those without SPD. No significant decline was observed in the prevalence of cigarette, ENDS or co-use among those with SPD while the prevalence of past-month cigarette, ENDS and co-use declined significantly among those without SPD from 2014 to 2017. CONCLUSION: Among those with SPD, there has been no significant decline in the prevalence of cigarette use, ENDS use or co-use between 2014 and 2017 and the prevalence of use of cigarettes, ENDS and co-use of cigarettes and ENDS is persistently three to four times higher among those with SPD compared with those without. More research is needed to understand how ENDS use may differ among those with mental health problems, as well as the implications of ENDS use in terms of initiation and persistence of use of combustible tobacco and long-term physical and mental health.

Willing to present orally: Yes

Financial Support: This work was supported by grant #DA-20892 from NIH/NIDA to Dr. Goodwin.

Prefix: Dr.

First Name: Renee

Middle Initial: D.

Last Name: Goodwin

Degrees: MA MD Ph.D etc:: Ph.D., M.P.H.

Email: renee.goodwin@sph.cuny.edu

CC Email: rgoodwin7@gmail.com

Company Affiliation: The City University of New York and Columbia University

Mailing Address: 55 West 125th Street

Address 2: Department of Epidemiology and Biostatistics

City: New York

State: NY

Zip/Postal: 10027

Country: United States

Phone: 6463449849

Membership Year: 2013

Sponsor: Dr. Lisa Dierker and Dr. Silvia Martins

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 435
Sex differences in life stress, morning cortisol levels, pain and risk of opioid use in a community sample

Nia Fogelman, Yale University School of Medicine, nia.fogelman@yale.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Sex Differences

Abstract: AIM: In recent years, the opioid crisis has reached critical levels as deaths due to opioid use have increased exponentially. Sex differences in chronic stress and pain have been reported, but their role in pain and risk of opioid use has not been well studied. Thus, we hypothesized that there are sex differences in the chronic stress, pain, and stress physiology measures that predict risk of opioid use in a community sample. METHODS: We conducted a cross-sectional study with 1033 community participants (57.2% female; 31.5 ± 10.6 years old). Logistic regression was used to predict opioid use (measured by the Addiction Severity Index), Poisson regression to predict number of pain symptoms (measured by a subscale of the Cornell Medical index), and linear regression to predict average hormonal levels (morning ACTH and cortisol). Linear mixed effects models were used to explore effects throughout the morning. RESULTS: A greater number of stressful life events was associated with more pain ($p < 0$ .001) and a greater likelihood of taking opioids ($p < 0.026$). Greater pain predicted greater chances of opioid use ($p < 0$ .001), lower average morning cortisol levels ($p < 0$ .001), and lower average morning CA ratio ($b = -0.096$, $p < 0.001$). Opioid use predicted heightened average ACTH ($p < 0.003$) and a flattened cortisol slope over the morning ($p < 0$ .035). Being a woman was associated with experiencing more pain ($p < 0$ .001). Finally, pain and gender interacted such that women showed a diminished average morning CA ratio relative to men ($p < 0.029$). CONCLUSIONS: Sex differences in pain symptoms, stressful life events and stress physiology suggests a need to assess these factors in considering the relationship between pain, stress and opioid use risk in community samples. Interventions that target these processes in a sex-specific manner could be of benefit in opioid use and abuse prevention efforts.

Willing to present orally: Yes

Financial Support: Supported by PL1-DA024859

Name of Sponsor (If you are NOT) a CPDD Member: Rajita Sinha

Email Address of Sponsor : rajita.sinha@yale.edu

Prefix: Dr.

First Name: Nia

Last Name: Fogelman

Degrees: MA MD Ph.D etc:: PhD

Email: nia.fogelman@yale.edu

Company Affiliation: Yale University School of Medicine

Mailing Address: 2 Church St South Suite 209

City: New Haven

State: CT

Zip/Postal: 06519

Country: United States

Phone: 203-737-4674

ID: 436
Review of sex-based differences in clinical trials and treatment outcome studies for individuals with opioid use disorder

Andrew Huhn, Johns Hopkins University School of Medicine, ahuhn1@jhu.edu

---

Abstract Category: Literature Review

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Sex Differences

Other Topic: Treatment

Abstract: Aims: Clinical trials and treatment outcomes research on individuals with OUD should account for biological factors that could impact individual treatment response. Participant sex is an obvious target to assess the biological basis of OUD treatment response. Women and men might have clinically meaningful differences in their experience in OUD treatment, however their unique challenges in maintaining long-term recovery are generally assessed as secondary analyses, and few studies are prospectively designed to assess sex-based differences. This review summarizes and synthesizes the current literature on sex-based differences in OUD treatment outcomes in order to inform future research that is prospectively designed to address this topic. Methods: Automated and manual searches using the terms “opioid treatment outcome sex differences” and “opiate treatment outcome sex differences” were utilized for this literature review. Search methodology used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, using the PubMed electronic database during March and April of 2018. Results: The preliminary PubMed search yielded 179 manuscripts, and 26 original research articles that met inclusion/exclusion criteria were synthesized in this review. While the literature on this topic is not consistent, notable trends included that women were more likely than men to present to treatment with co-occurring mental health conditions such as depression, and that women might respond particularly well to buprenorphine maintenance. Conclusions: As many of the articles reviewed were secondary analyses and were not collected from nationally representative samples, the results of this review are subject to potential cohort effects. However, the findings regarding co-morbid mental health conditions and response to buprenorphine treatment might inform future clinical trials and human laboratory studies. Understanding sex-differences in OUD is an important first step toward creating individualized therapies that maximize treatment outcomes, and should be prospectively assessed in future research.

Willing to present orally: Yes

Financial Support: Funding: The work described in this abstract was funded by the National Institute on Drug Abuse: NIDA R21 DA035327 (Dunn). Authors ASH and MSB were supported by T32 DA07209 (Bigelow).

Prefix: Dr.

First Name: Andrew

Middle Initial: S.

Last Name: Huhn

Degrees: MA MD Ph.D etc:: Ph.D., M.B.A.

Email: ahuhn1@jhu.edu

Company Affiliation: Johns Hopkins University School of Medicine

Mailing Address: 5510 Nathan Shoch Drive

City: Baltimore

State: MD

Zip/Postal: 21224

Country: United States

Phone: 4105501971

Membership Year: 2016

Sponsor: Dr. Kelly Dunn, PhD

Travel Award: NIDA Diretor 2017

Research Interests: Behavioral Pharmacology,Neurobiology

ID: 437
Paternal alcohol exposure reduces reinstatement of alcohol seeking in rat offspring

Steven Nieto, University of Houston, sjnieto@central.uh.edu

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Alcohol

Topic: Behavior

Abstract: AIM: Familial transmission of alcohol use disorder reflects genetic and environmental factors. For decades, studies in rodents demonstrated that paternal alcohol exposure produces cognitive and physiological abnormalities in offspring. The mechanisms of these effects may reflect epigenetic modifications transmitted through the male germ line. While mouse studies show that paternal alcohol exposure alters sensitivity to alcohol in offspring, no studies have examined whether paternal alcohol exposure impacts operant alcohol self-administration behaviors in offspring. METHODS: We exposed male Wistar rats to a chronic intermittent ethanol procedure (CIE) in alcohol vapor chambers (16 h/day; 5 days/week; 6 weeks) or to room air. Eight weeks later, rats were mated with alcohol-naive females and adult offspring (F1) were trained to lever press for increasing alcohol concentrations (2.5%, 5%, & 10%, v/v). Following acquisition, extinction sessions were conducted over several weeks under both fixed and progressive ratio schedules. Cue-induced reinstatement tests were followed by a week of reinitiation sessions, wherein alcohol (5%) was available as a reinforcer. RESULTS: We found that alcohol-sired offspring of both sexes pressed the active lever less during extinction sessions and cue-induced reinstatement tests relative to control-sired offspring. During reinitiation, alcohol-sired offspring pressed the active lever less and received fewer alcohol deliveries compared to control-sired offspring. CONCLUSION: Overall, these results indicate that paternal alcohol exposure prior to conception induces long-lasting effects that are protective against alcohol-motivated behaviors in offspring.

Willing to present orally: No

Financial Support: U01-AA013476 to TAK F31-AA026495 to SJN

Name of Sponsor (If you are NOT) a CPDD Member: Therese A. Kosten, PhD

Email Address of Sponsor : takosten@central.uh.edu

Prefix: Mr.

First Name: Steven

Middle Initial: J.

Last Name: Nieto

Degrees: MA MD Ph.D etc:: MA

Email: sjnieto@central.uh.edu

Company Affiliation: University of Houston

Mailing Address: 4605 Orchard Avenue

Address 2: Apt 3102

City: Los Angeles

State: CA

Zip/Postal: 90037

Country: United States

Phone: 6262900006

ID: 438
Digital access among clients in residential addiction treatment: Potential for increasing access to smoking cessation services

Deborah Yip, University of California San Francisco, Deborah.Yip@ucsf.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Technology Issues

Other Topic: Addiction treatment

Abstract: Aims: Digital technology has the potential to extend tobacco cessation treatment to vulnerable populations that may have limited access to these services, such as individuals in addiction treatment. However, there is limited research on digital access among this population. This study examines access and use of the Internet and cell phones among individuals in residential addiction treatment programs. Methods: We surveyed 163 addiction treatment clients in San Francisco, California on internet access and use, cell phone use, type, and functionality, and perceptions of smoking cessation interventions. We examined relationships between these items and age, education level and race/ethnicity using logistic regression, controlling for nesting of clients within their program. Results: Most clients currently use the Internet (79.1%), primarily accessed through a mobile device (86.8%). While 57.6% of clients go online 5-7 days per week, younger clients (adjusted odds ratio [AOR]=1.05) and those who have at least a high school diploma/GED (AOR=1.89) have higher odds of doing so than clients who are older or did not attain a high school diploma/GED ($p < 0$ .001). Most clients currently have a working cell phone (84.1%), 74.3% of whom own a smartphone. Having at least some college education was significantly associated with having a phone that can download mobile applications (AOR=1.84, p=0.002). Clients also reported whether they would feel comfortable receiving text messages (32.5%), using a smartphone app (38.0%), or accessing a website (39.9%) for help quitting smoking. Non-White clients had lower odds of being comfortable receiving smoking cessation text messages than White clients (AOR=0.65, p=0.017). Conclusion: Overall, access to the Internet and cell phones was high among residential addiction treatment clients, but usage of either was lower. One-third of this sample was comfortable using digital technology for help with quitting smoking. More research is needed to establish feasible technology-based smoking cessation interventions for high-risk populations.

Willing to present orally: Yes

Financial Support: 1) TRDRP 25CP-0002 2) NCI Cancer Center Support Grant P30 CA082103

Name of Sponsor (If you are NOT) a CPDD Member: Joseph Guydish

Email Address of Sponsor : Joseph.Guydish@ucsf.edu

Prefix: Ms.

First Name: Deborah

Last Name: Yip

Email: Deborah.Yip@ucsf.edu

CC Email: dyip@berkeley.edu

Company Affiliation: University of California San Francisco

Mailing Address: 850 Geary St.

Address 2: Apt 42

City: San Francisco

State: CA

Zip/Postal: 94109

Country: United States

Phone: (562) 370-7230

ID: 439
Sex differences in high fat diet-induced enhanced sensitivity to the locomotor stimulating effects of methamphetamine and the direct dopamine D1 receptor agonist SKF 82958

Jeremiah Ramos, The University of Texas at El Paso, jramos7@miners.utep.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Stimulants

Topic: Behavior

Abstract: Aim: Rats eating high fat laboratory chow are more sensitive to the behavioral effects of abused drugs, including methamphetamine. Most of the previous research investigating diet-induced effects on drug sensitivity has used male rats, therefore it is not known if females eating high fat chow are also more sensitive to the behavioral (e.g., locomotor-stimulating) effects of methamphetamine. Methamphetamine-induced locomotion is mediated, in part, by dopamine D1 and D2 receptors. While several reports have examined diet-induced effects on dopamine D2 receptor agonists, it is not known if eating high fat chow also enhances sensitivity of rats to dopamine D1 receptor agonists (e.g., SKF 82958) which also induce locomotion as well as eye blinking. Methods: To test the hypothesis that eating high fat chow enhances sensitivity of male and female rats to drugs that act on dopamine systems, male and female Sprague-Dawley rats eating either standard laboratory chow (17% kcal from fat) or high fat chow (60% kcal from fat) were tested once per week for 6 weeks with SKF 82958 (0.01-3.2 mg/kg) or methamphetamine (0.1-3.2 mg/kg) using a cumulative dosing procedure. Results: Eating high fat chow enhanced sensitivity of male and female rats to methamphetamine-induced locomotion and only female rats to SKF 82958 induced locomotion. SKF 82958 significantly increased eye blinking in both male and female rats compared to vehicle controls, and this effect was marginally (though not significantly) enhanced among female rats eating high fat chow. Conclusion: Taken together with previous research, these results suggest that among females, eating high fat chow might impact sensitivity to methamphetamine via dopamine D1 receptor specific changes, while among males, high fat diet-induced enhanced sensitivity to methamphetamine might be due to dopamine D2 receptor specific changes. Future experiments will examine differences in dopamine receptor expression among male and female rats eating different diets.

Willing to present orally: No

Financial Support: GFR was supported by NIGMS 5RL5GM118969-05, ATG was supported by NIDA 5R25DA033613-07

Name of Sponsor (If you are NOT) a CPDD Member: Stephen Kohut

Email Address of Sponsor : skohut@mclean.harvard.edu

Prefix: Mr.

First Name: Jeremiah

Last Name: Ramos

Degrees: MA MD Ph.D etc:: MS

Email: jramos7@miners.utep.edu

CC Email: kmserafine2@utep.edu

Company Affiliation: The University of Texas at El Paso

Mailing Address: 500 W. University Ave.

City: El Paso

State: Texas

Zip/Postal: 79968

Country: United States

Phone: 9153550203

ID: 440
Sex differences in prescription (Rx) opioid use patterns among community members in north central Florida

Mirsada Serdarevic, University of Florida, mserdarevic@ufl.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Sex Differences

Abstract: Aim: Rx opioid morbidity and mortality continues to grow in the US, yet sex differences in opioid use remain understudied. Here, we examined Rx opioid use and sex-specific risk factors for use in a community sample from Northeast Florida recruited through a community outreach program, HealthStreet. Methods: Community Health Workers (CHWs) assessed health and concerns of community members in the field between November 2011 and June 2018 using a health needs assessment. Demographic, health status, and substance use data, including use of opioids (i.e., Vicodin®, Oxycodone) were collected during the assessment. Participants (≥ 18 years) were classified by opioid use: past 30-day use, any lifetime use (not in previous 30 days), and no lifetime use. Descriptive statistics and chi-square tests were calculated, and multinomial logistic regression was used to calculate adjusted odds ratios (aOR; CI). Analyses were conducted for men and women separately to examine sex specific effects. Results: Among 9,785 community members (60% female; 59% black; mean age = 45 years), 49% reported no lifetime use of Rx opioids, 37% reported lifetime but not past 30-day use, and 14% reported past 30-day use. Women were significantly more likely than men to report lifetime and past-30 day use (p

Willing to present orally: Yes

Financial Support: Department of Epidemiology at the University of Florida.

Prefix: Ms.

First Name: Mirsada

Last Name: Serdarevic

Email: mserdarevic@ufl.edu

CC Email: mserdarevic@ufl.edu

Company Affiliation: University of Florida

Mailing Address: 2004 Mowry Road

City: Gainesville

State: FL

Zip/Postal: 32610

Country: United States

Phone: 8025227079

ID: 441
Phase II efficacy of a mindfulness-based intervention on clinical progress and relapse among women in residential SUD treatment: A randomized controlled trial

Hortensia Amaro, Florida International University, hamaro@usc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Treatment

Abstract: AIM: In this Phase II randomized controlled trial intent-to-treat outcomes analysis, we test the effect of a gender-tailored mindfulness-based relapse prevention program (Moment-by-Moment in Women's Recovery, MMWR) against an attention control group (Neurobiology of Addiction Education, NA) in a diverse sample of women admitted to residential SUD treatment. METHODS: In both study conditions, trained facilitators delivered 12 intervention sessions via group format (80 minutes each). We hypothesized that MMWR participants would outperform controls on treatment completion, clinician-rated treatment progress, and relapse (assessed via calendar-formatted timeline follow-back) from study intervention start to 8.5 months later. RESULTS: In a sample of women (N=200), average age 32.5 years, majority Hispanic (58%), majority with incarceration history (62%), and high amphetamine use (76%), there were 106 residential treatment completers, 89 non-completers, and 5 still in treatment at final assessment. We found no group differences in residential treatment completion; however, among residential non-completers, MMWR participants were more likely than controls to have clinician-rated satisfactory progress (40% vs. 22.7%; OR=3.02, CI: 1.05-8.70; P = .04). Survival analysis showed the MMWR group had lower risk for any drug use (HR=0.73, P = .31), alcohol intoxication (HR=0.67, P = .39), and marijuana use (HR=0.44, P = .05), but only marijuana use reached statistical significance, representing a medium effect size. Marijuana abstinence was higher in MMWR vs. NA (84% vs. 74%; OR=3.51, P = .08). Days of marijuana use among marijuana users was lower in MMWR (M = 37.6) vs. NA (M = 73.1, difference = 35.5 days, P = .05). CONCLUSION: Our trial results indicate MMWR's Phase II efficacy for increasing clinical progress among early treatment dropouts, and for marijuana relapse. Implications of findings will be discussed in the context of adding mindfulness-based relapse prevention curriculums to comprehensive residential treatment programs that serve vulnerable women at risk for early treatment dropout.

Willing to present orally: Yes

Financial Support: Supported by grants from the National Institute on Drug Abuse and the National Institute on Alcohol Abuse and Alcoholism (R01DA038648).

Prefix: Dr.

First Name: Hortensia

Last Name: Amaro

Degrees: MA MD Ph.D etc:: Ph.D.

Email: hamaro@usc.edu

CC Email: hamaro@fiu.edu

Company Affiliation: Florida International University

Contact Title: Distinguished University Professor and Senior Scholar

Mailing Address: 11200 SW 8th Street

Address 2: AHC5

City: Miami

State: FLA

Zip/Postal: 33199

Country: United States

Phone: 617 799 7280

Membership Year: 2014

Sponsor: Dr. Christine Grella, Ph.D. and Charles Kaplan

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 442
Data-driven subgroups of help-seeking youth based on patterns of substance use

Gillinder Bedi, University of Melbourne , gill.bedi@orygen.org.au

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Adolescent

Abstract: AIM: Substance use commonly starts in adolescence, with rates of substance use disorders (SUDs) peaking between 18 and 20. While most young people who experiment with drugs do not develop problematic use, the presence of psychological distress and emerging mental illness confers additional risk for such problems. Australia's early intervention primary mental health infrastructure (i.e. "headspace" centres) provides a potential point of contact with help-seeking young people who may have, or be at risk of developing, substance use problems. To better understand substance use in this risk-enriched population, we developed an empirically-defined model of subgroups of youth seeking treatment for mental ill-health based on their substance use, assessing characteristics of the groups identified. METHODS: Subgroups were identified using exploratory latent class analysis (LCA) of self-reported lifetime and past 3-month substance use in a sample of help-seeking youth (N=677; 15-25 years old), collected from 4 headspace Centres in Melbourne and Sydney. Data from a second sample (N = 276; 15-25 years old) collected across 4 headspaces in Melbourne were used for confirmatory LCA. RESULTS: Exploratory LCA yielded a four-group model, comprising: 1) current alcohol users; 2) current alcohol, tobacco, and cannabis users; 3) past polydrug users; and 4) current polydrug users. Current polydrug users were older, reported greater distress and symptomatology, and had lower quality of life than the other groups (p's $< .05$). Confirmatory LCA replicated this four-class model, however differences between groups in distress and quality of life did not reach statistical significance. CONCLUSIONS: Results indicate that youth seeking help for mental ill-health report high levels of substance use, with differentiable use patterns that appear to be linked to distress and function. Findings suggest that help-seeking in primary care settings presents a currently under-exploited opportunity for early intervention in young people at-risk for developing SUDs.

Willing to present orally: Yes

Financial Support: Funded by NHMRC (ID: 566529) and the BB and A Miller Foundation.

First Name: Gillinder

Last Name: Bedi

Degrees: MA MD Ph.D etc:: Ph.D,

Email: gill.bedi@orygen.org.au

Company Affiliation: University of Melbourne

Mailing Address: 35 Poplar Road

City: Parkville

State: Victoria

Zip/Postal: 3052

Country: Australia

Phone: +61466247240

Membership Year: 2013

Sponsor: Dr, Margaret Haney and Dr. Richard Foltin

Travel Award: 2011

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 443
Considerations for the use of male and female animals in behavioral abuse potential studies during drug development

Greg Hawkins, U.S. Food and Drug Administration, Edward.Hawkins@fda.hhs.gov

---

Abstract Category: Theoretical/Commentary

Abstract Detail: Animal Study

Drug Category: Other (specify)

Other Drug Category: general assessment

Topic: Policy

Abstract: Aim: To determine when male and female animals should be used in animal behavioral abuse potential studies in drug development. Animal behavioral studies are conducted as part of the comprehensive abuse potential assessment of a drug. Consistent with ICH guidance M3(R2) recommendations, the FDA guidance for industry, Assessment of Abuse Potential of Drugs, indicates that it is appropriate to include animals of both sexes in nonclinical safety studies, which includes assessment of drug discrimination, self-administration, and physical dependence. Positive findings from abuse-related animal behavioral studies (among other factors) typically indicate that a human abuse potential (HAP) study should be conducted. Conversely, negative findings are often a sponsor's basis to propose that a drug does not show a signal of abuse potential to warrant a HAP study. Moreover, we are aware that some sponsors prefer to conduct drug discrimination or self-administration studies in animals of only one sex. This may be supportable. This poster will outline the factors that FDA considers important for sponsors to address when submitting animal abuse-related protocols proposing use of a single sex. In general, a negative finding in a relevant abuse-related animal study can be relied upon only if the study was designed appropriately, which includes using animals of the most sensitive species and sex to detect a signal of abuse potential. Conclusions: Data from behavioral studies serve as basis to further recommend studying the abuse potential of a drug in HAP studies. It is important that these studies include animals of the sex most appropriate to detect the abuse-related signals of a drug.

Willing to present orally: No

Financial Support: N/A

Name of Sponsor (If you are NOT) a CPDD Member: Silvia Calderon

Email Address of Sponsor : Silvia.Calderon@fda.hhs.gov

Prefix: Dr.

First Name: Greg

Last Name: Hawkins

Degrees: MA MD Ph.D etc:: Ph.D.

Email: Edward.Hawkins@fda.hhs.gov

Company Affiliation: U.S. Food and Drug Administration

Mailing Address: 10903 New Hampshire Ave

Address 2: Building 51, Room 5117

City: Silver Spring

State: MD

Zip/Postal: 20993

Country: United States

Phone: 3017960727

ID: 444
Varenicline reduces concurrent alcohol and nicotine self-administration in baboons

Elise Weerts, Johns Hopkins University School of Medicine, eweerts@jhmi.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Polydrug

Topic: Treatment

Abstract: AIM: Varenicline is an FDA-approved medication for smoking cessation that is under investigation for the treatment of alcohol use disorder. It functions as a full agonist at alpha-7 nicotinic acetylcholine receptors (nAChR) and a partial agonist at alpha-4 beta-2 nAChR. The goal of this study was to examine the effects of varenicline on alcohol and nicotine self-administration in a baboon model of alcohol and nicotine co-use. METHODS: Subjects were three male baboons (Papio anubis), trained under a novel Alcohol and Nicotine Concurrent Access (ANCA) procedure in which 'Drinks' of alcohol (4% w/v) and injections of nicotine (0.032-1 mg/kg, IV) were concurrently available under a fixed ratio (FR 3) schedule of reinforcement for 6-hrs/day. Water was freely available ad libitum from a different spout 24-hrs/day. Doses of 0.056 and 0.1 mg/kg nicotine maintained high rates of self-administration, and total dose (1.7-3 mg/inj.) was comparable to human intake levels. Alcohol intake exceeded 1 g/kg/day. We selected the 0.056 mg/kg nicotine dose to test effects of varenicline; Pretreatment with varenicline (0.32-1.0 mg/kg, s.c.) or an equal volume of its vehicle (2 ml 0.09% saline) before the ANCA session was repeated for 5 consecutive days. Baseline levels of intake under the ANCA were reestablished for at least 2 weeks and stable before proceeding to the next dosing period (i.e., 2-3-week washout period). RESULTS: Varenicline significantly reduced intake of both alcohol and nicotine in a dose-related manner, when compared to the vehicle condition. CONCLUSION: These data demonstrate efficacy of varenicline for reduction of alcohol and nicotine co-use.

Willing to present orally: Yes

Financial Support: R01AA015971. Nicotine was provided by the NIH/NIDA drug supply program.

Prefix: Ms.

First Name: Elise

Middle Initial: M.

Last Name: Weerts

Degrees: MA MD Ph.D etc:: Ph.D

Email: eweerts@jhmi.edu

Company Affiliation: Johns Hopkins University School of Medicine

Contact Title: Assistant Professor

Mailing Address: 5510 Nathan Shock Drive - Suite 3000

City: Baltimore

State: MD

Zip/Postal: 212246823

Country: United States

Phone: 410-550-2781

Fax: (410) 550-2780

Membership Year: 1995

ID: 445
Effects of a methamphetamine vaccine, IXT-v100, on methamphetamine-related behaviors

Courtney Keller, LSU Health-Shreveport, ckell1@lsuhsc.edu

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Stimulants

Topic: Treatment

Abstract: AIM: Vaccines have recently been developed as a potential treatment for methamphetamine (meth) use disorder (MUD). Immunization with the meth vaccine IXT-v100 has previously been shown to elicit antibodies with high affinity for meth and thus may be an effective treatment for MUD. These studies were designed to determine the efficacy of IXT-v100 on meth-taking and meth-seeking behaviors in Wistar rats. METHODS: In the acquisition and maintenance study, vaccinated male and female rats (n=9-10 per group) were trained to self-administer meth (0.06 mg/kg/infusion) over an eight-week period. In the last four weeks, the dose of meth was increased or decreased each week. To assess meth-seeking behavior, the meth-primed reactivity model was used. Rats were trained to self-administer meth for five weeks, followed by a five-week or eleven-week forced abstinence period, during which vaccinations were given. Rats were then placed back into the self-administration chamber immediately after being injected with meth (1 mg/kg, i.p.) but did not receive meth during the session. Responses were recorded and used as a measure of meth seeking. Statistical significance was determined with a two-way analysis of variance. A repeated measures ANOVA was used to determine significance in the meth-reactivity studies. RESULTS: In male rats (n=8-10 per group) vaccinated with IXT-v100, there was a significant ($p < 0$ .05) decrease in the acquisition of self-administration. Further, in comparison to responding during self-administration, vaccinated male rats made significantly fewer responses during the meth-primed reactivity session. Female rats (n=7-8 per group) vaccinated with IXT-v100 also self-administered less meth during the acquisition of self-administration and during the maintenance of self-administration with the 0.03 mg/kg/infusion dose. Additionally, responding during meth-primed reactivity was significantly reduced compared to responding during self-administration after either a five-week or an eleven-week abstinence/vaccination period. CONCLUSION: These studies suggest that vaccination with IXT-v100 may be an effective treatment for MUD.

Willing to present orally: No

Financial Support: This work was supported by the National Institute on Drug Abuse of the National Institutes of Health (grant number U01DA035511). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Name of Sponsor (If you are NOT) a CPDD Member: Nicholas E. Goeders

Email Address of Sponsor : ngoede@lsuhsc.edu

Prefix: Dr.

First Name: Courtney

Middle Initial: M

Last Name: Keller

Degrees: MA MD Ph.D etc:: Ph.D.

Email: ckell1@lsuhsc.edu

Company Affiliation: LSU Health-Shreveport

Mailing Address: 1501 Kings Highway

City: Shreveport

State: LA

Zip/Postal: 71130

Country: United States

Phone: 3186757862

ID: 446
Meta-analysis of the acute effects of nicotinic acetylcholine receptor stimulation on mismatch negativity

Ajna Hamidovic, University of Illinois, ahamidov@uic.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Neurobiology

Other Topic: Event Related Poentials

Abstract: AIM: To investigate whether nicotinic acetylcholine receptor stimulation enhances echoic memory measured as the amplitude of mismatch negativity (MMN). METHODS: The terminology used in the search included nicotine/varenicline/nicotinic acetylcholine agonist and mismatch negativity/MMN. Studies evaluating amplitude of MMN in healthy volunteers using duration, frequency or intensity deviants were included in the analysis. RESULTS: : Seven studies (n=128) conducted in 78 men and 50 women matched our search criteria. All of the studies administered nicotine, via intravenous, buccal or transdermal route of administration. Across all deviants, there was a significant increase of MMN after administration of nicotine (Mean Difference = 0.33; 95% CI: [0.165; 0.495]; p CONCLUSION: The finding of this meta-analysis is consistent with the global, pro-cognitive effect of nicotine. Nicotine, which promotes N-methyl-D-aspartate (NMDA) receptor-mediated glutamatergic neurotransmission, has the opposite direction on MMN than ketamine, an NMDA antagonist, which reduces MMN. Mismatch negativity is likely guided by a focused and narrow NMDA receptor-mediated glutamatergic neurotransmission. This finding contributes to our understanding of brain function, including pathophysiology of disorders with altered glutamatergic signaling.

Willing to present orally: Yes

Financial Support: University of Illinois at Chicago College of Pharmacy

Prefix: Dr.

First Name: Ajna

Last Name: Hamidovic

Degrees: MA MD Ph.D etc:: PharmD, MS

Email: ahamidov@uic.edu

CC Email: ahamidov@uic.edu

Company Affiliation: University of Illinois

Mailing Address: 833 S. Wood St. MC 886

City: Chicago

State: IL

Zip/Postal: 60623-7230

Country: United States

Phone: 3123551713

Sponsor: Dr. Harriet deWit and Dr. Eric Nestler

Research Interests: Behavioral Pharmacology,Clinical Drug Development

ID: 447
Methamphetamine-induced vaginal lubrication

Maggie Mott, LSUHSC-Shreveport, mmott1@lsuhsc.edu

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Stimulants

Topic: Sex Differences

Abstract: AIM: Previous research from our lab has demonstrated that female methamphetamine (METH) users report a warmth or flushing sensation spreading from the chest area to the genital region, accompanied by an immediate excessive increase in vaginal lubrication, indicative of sexual arousal (Goeders, 2015) following the intravenous (IV) administration of the drug. We hypothesized that IV METH would also increase vaginal lubrication in female rats, and that this effect would be produced in anesthetized rats, suggesting that it is an unconditional effect, occurring below the level of conscious control. METHODS: Adult female Wistar rats (n=12) were implanted with chronic indwelling jugular catheters and allowed at least one week to recover from surgery. Rats were anesthetized using pentobarbital (50 mg/kg ip) and infused with METH (0.12 to 3.0 mg/kg) or the positive control, sildenafil (50 mg/kg) via the implanted catheter. Pre-weighed, soft-tipped mini swabs were inserted approximately 5 mm into the vaginal canal and remained in place for 10 to 60 minutes. The amount of vaginal fluid produced was measured by determining the weight of the swab before and after the infusion of METH or sildenafil. RESULTS: As hypothesized, METH (0.12 mg/kg, IV) significantly increased vaginal secretions compared to baseline (and similarly to sildenafil), especially within the first 15 minutes after infusion ($p < 0$ .05 compared to baseline, 1-way ANOVA). We are currently repeating this study with lower doses of METH and are also investigating potential mechanisms mediating these METH-induced increases in vaginal secretions. CONCLUSION: This study has far ranging implications since women who use METH describe enhanced sexual desire, pleasure and disinhibition as a key benefits of METH use. We have uncovered an unconditional physiological sexual response that may also contribute to METH use in women. A better understanding of this response will lead to improved treatment for women with MUD.

Willing to present orally: Yes

Financial Support: LSU Health - Shreveport, Department of Pharmacology, Toxicology & Neuroscience

Name of Sponsor (If you are NOT) a CPDD Member: Nicholas E. Goeders, Ph.D.

Email Address of Sponsor : NGOEDE@LSUHSC.EDU

Prefix: Ms.

First Name: Maggie

Middle Initial: N

Last Name: Mott

Degrees: MA MD Ph.D etc:: BS

Email: mmott1@lsuhsc.edu

CC Email: mnmott23@gmail.com

Company Affiliation: LSUHSC-Shreveport

Mailing Address: 6051 Roma Drive

Address 2: Apt 711

City: Shreveport

State: LA

Zip/Postal: 71105

Country: United States

Phone: 3377893617

ID: 448
Factors associated with impaired driving and other risk behaviors at re-entry from jail

Matt Webster, University of Kentucky, matt.webster@uky.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Behavior

Abstract: AIM: Community re-entry from jail is often marked by returning to risk behaviors that preceded incarceration. Limited research has focused on examining factors associated with risk behaviors, such as impaired driving, following incarceration among rural women. Consequently, this study addresses two research questions: (1) What are the factors associated with impaired driving following release from jail for rural female offenders? and (2) Do impaired driving risk factors also predict other risk behaviors following jail-release? METHODS: As part of a study on drug use and high-risk behavior among rural women, 400 women from three rural jails were randomly selected, consented, and screened. Demographics, drug use, physical and mental health, criminal involvement, and risk behavior information was collected during baseline and follow-up interviews. T-tests and chi-square analyses were used to compare participants who reported impaired driving post-jail to those who did not. Then, logistic regression analyses were used to predict post-jail risk behaviors (impaired driving, injection drug use, sex risk behavior), while controlling for pre-jail risk behavior. RESULTS: Bivariate analyses found significant (p

Willing to present orally: No

Financial Support: Research was supported by the National Institute on Drug Abuse of the National Institutes of Health under Award Number R01DA033866.

Prefix: Dr.

First Name: Matt

Last Name: Webster

Degrees: MA MD Ph.D etc:: Ph.D.

Email: matt.webster@uky.edu

Company Affiliation: University of Kentucky

Contact Title: Associate Professor

Mailing Address: 120 Medical Behavioral Science Building

City: Lexington

State: KY

Zip/Postal: 40536-0086

Country: United States

Phone: (859) 323-6100

Fax: (859) 323-5350

Membership Year: 2004

Sponsor: Thomas Kelly and Carl Leukefeld

Research Interests: Behavioral Pharmacology,Molecular Biology

ID: 449
Results of implementing objective measurement of smoking status at cardiac rehabilitation

Diann Gaalema, University of Vermont, dgaalema@uvm.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Behavior

Abstract: Aims: Patients who have a serious cardiac event are eligible for cardiac rehabilitation (CR), a series of risk control classes and progressive exercise sessions, participation in which is associated with reduced morbidity and mortality. Continued smoking following a cardiac diagnosis is strongly associated with increased morbidity and mortality. However, most CR programs rely on self-report measures of smoking. In this study we examine initial patient data gathered after objective smoking status monitoring was implemented in CR. We hypothesized that a substantial number of patients were not being appropriately identified as current smokers. Methods: Objective monitoring of smoking status, through breath Carbon monoxide (CO), was implemented in April of 2018. 211 patients thus far have been screened for smoking status as part of their intake assessment. The discrepancy between smoking status based on self-report and objective measurement was examined and patient characteristics of current smokers vs. former/never smokers were compared. Results: Of the 211 patients screened 16 were identified as current smokers based upon self-report. When classified by breath CO, 27 patients met the criteria for current smoking (breath CO > 10 ppm), suggesting that 1/3 of patients were being misclassified as nonsmokers. CO averaged 16.9 ppm in the smoker group as compared to 1.8 ppm in the rest of the sample. When comparing current smokers with former/nonsmokers, current smokers were younger (59.0 vs. 69.7), but had a similar fitness level despite the age difference (5.48 vs. 5.59 METS). Current smokers also had higher depression scores (6.8 vs. 3.8 PHQ-9) and lower levels of educational attainment (12.4 vs. 15.0 years). Conclusions: Our results suggest that a substantial number of patients are misclassified by relying on the clinical record alone. Given the health effects of continued smoking patients must be appropriately identified so they can receive intense intervention.

Willing to present orally: Yes

Financial Support: This research was supported in part by NIH award P20GM103644 and NIDA/FDA award P50DA036114.

Prefix: Dr.

First Name: Diann

Last Name: Gaalema

Degrees: MA MD Ph.D etc:: Ph.D.

Email: dgaalema@uvm.edu

Company Affiliation: University of Vermont

Mailing Address: 1 South Prospect Street

Address 2: UHC MS 482

City: Burlington

State: VT

Zip/Postal: 05405

Country: United States

Phone: (802) 656-9874

Fax: (802) 656-9628

Membership Year: 2010

Sponsor: Dr. Stephen Higgins and Dr. Sarah Heil

Travel Award: 2013

Research Interests: Behavioral Pharmacology,Health Services

ID: 450
Intimate partner violence and couple conflict behaviors: The moderating effect of drug use problem severity

Amber Jarnecke, Medical University of South Carolina, jarnecka@musc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Behavior

Other Topic: Sex Differences

Abstract: Aim: Individuals with substance use disorders are at increased risk for intimate partner violence (IPV), and partner violent couples demonstrate high levels of conflict marked by negative interactions. The current study investigated the moderating effect of drug use severity on the association between IPV perpetration and couple conflict behaviors. Methods: A sample of 30 opposite-sex couples (N=60 individuals), in which one or both partners endorsed substance use problems, was recruited for a larger study. Participants completed self-report measures assessing IPV and drug use severity. They completed a 10-minute video-recorded dyadic conflict task. Behavioral responses of each partner in a dyad were coded by trained observers. Actor-partner interdependence modeling, accounting for the nested nature of the data (i.e., individuals within dyads), was used in a multilevel modeling framework to test whether drug use problem severity moderated the association between physical and psychological IPV perpetration and conflict behaviors. Results: The findings suggest that drug use severity moderates the association between physical IPV perpetration and positive conflict resolution behaviors in women (B = -0.22, SE = 0.09, p = 0.016), such that women who report more drug use problems exhibit fewer positive behaviors when they report more severe physical IPV. Similarly, drug use severity moderates the association between psychological IPV perpetration and negative conflict resolution behaviors in women (B = -0.06, SE = 0.0, p = 0.029). Women who report more drug use problems exhibit fewer negative behaviors when they report more severe psychological IPV. No main or moderating effects were found for men. Conclusion: Results from the current study highlight sex differences and suggest that women with more severe drug use problems may withdraw from conflict discussions and engage in fewer conflict behaviors overall when IPV is severe. Future studies should explore investigate strategies to improve couple conflict resolution for high-risk individuals.

Willing to present orally: Yes

Financial Support: This study is the result of work supported, in part, by the National Institute on Child Health and Human Development and the Office of Research on Women's Health (K12HD055885), the National Institute on Alcohol Abuse and Alcoholism (T32AA747430 and K23AA023845), and the National Institute on Drug Abuse (K02DA039229).

Name of Sponsor (If you are NOT) a CPDD Member: Sudie Back

Email Address of Sponsor : backs@musc.edu

Prefix: Dr.

First Name: Amber

Last Name: Jarnecke

Degrees: MA MD Ph.D etc:: PhD

Email: jarnecka@musc.edu

Company Affiliation: Medical University of South Carolina

Mailing Address: 67 President St. MSC 861

City: Charleston

State: SC

Zip/Postal: 29425

Country: United States

Phone: 843-876-3115

ID: 451
Risk factors associated with early injection drug use initiation among a cohort of PWID

Jesse Goldshear, Keck School of Medicine University of Southern California, goldshea@usc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Other Drug Category: Risk Factors Associated with Early Injection Drug Use Initiation Among a Cohort of PWID

Topic: Behavior

Abstract: AIM Despite rising trends in injection drug use and overdose deaths, relatively little research has focused on prevalence and risk factors of early (16 years of age or younger) initiation into injection drug use. We sought to examine demographic factors and drug use characteristics associated with early initiation into injection drug use among our sample. METHODS Targeted sampling was used to recruit 777 PWID into a multi-site study in Los Angeles and San Francisco, California. Data was collected on domains including demographics, drug use history and practices, and injection initiation. Chi-square and t-tests were used to assess differences between early initiates and non-early initiates. Logistic regression was then used to construct a multivariate model of independent associations with early injection initiation. RESULTS The final multivariate logistic regression model explained 31% of the variance in early injection drug use. Factors associated ($p < 0.05$) with early injection drug use in the model are as follows: Black race (AOR: 0.35, 95% CI: 0.23 – 0.55), having a family member who initiated the participant into injection (AOR: 2.84, 95% CI: 1.62 – 5.00), sex with a person 5 or more years older prior to being 16 (AOR: 3.12, 95% CI: 2.16 – 4.51), bipolar illness diagnosis (AOR: 1.87, 95% CI: 1.21 – 2.90), used crack before first injection (AOR: 0.17, 95% CI: 0.10 – 0.28), used meth before first injection (AOR: 0.46, 95% CI: 0.31 – 0.68), and used cannabis before first injection (AOR: 0.57, 95% CI: 0.34 – 0.96). CONCLUSION Early injection initiates are an especially at-risk population, and further research is necessary to determine the best ways to reach these individuals. Risk factors for early initiation include family members who inject and are willing to initiate, having an older sex partner, and mental illness. More attention and resources should be devoted to this group of PWID.

Willing to present orally: Yes

Financial Support: Funding Source: NIDA R01DA027689 & RO1 DA038965

Name of Sponsor (If you are NOT) a CPDD Member: Ricky Bluthenthal

Email Address of Sponsor : rbluthen@usc.edu

Prefix: Mr.

First Name: Jesse

Middle Initial: L

Last Name: Goldshear

Degrees: MA MD Ph.D etc:: MPH

Email: goldshea@usc.edu

Company Affiliation: Keck School of Medicine University of Southern California

Mailing Address: 2001 N. Soto Street

City: Los Angeles

State: California

Zip/Postal: 90089

Country: United States

Phone: 215-896-1178

ID: 452
Withdrawal symptom severity is associated with heightened mesocorticolimbic response to drug-related stimuli in opioid use disorder

Zhenhao Shi, Department of Psychiatry, University of Pennsylvania Perelman School of Medicine, zhenhaoshi@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Imaging

Abstract: Aims: Opioid use disorder (OUD) has reached epidemic proportions nationally. Despite the availability of effective medication-assisted treatments (MATs), the relapse rates in OUD remain high. Elevated responses to drug-related stimuli (i.e. cues), such as conditioned craving and withdrawal symptoms, are thought to be an important cause of relapse in OUD. The mesocorticolimbic (MCL) dopaminergic pathways, which include the nucleus accumbens (NAcc) and medial orbitofrontal cortex (mOFC), play a central role in drug cue-reactivity. The present study aimed to examine whether baseline craving or withdrawal symptoms are associated with greater MCL drug cue-reactivity in OUD. Confirming this hypothesis could enable the development of brain-based objective measures of addiction severity that could be used to evaluate new and existing MATs. Methods: Using functional magnetic resonance imaging (fMRI), we examined the MCL response to opioid-related pictures in twenty-nine OUD patients (18 male, 11 female; 19–47 years old). Before fMRI, self-reported opioid craving was recorded using a 10-point scale, and opioid withdrawal symptoms were measured using the Clinical Opiate Withdrawal Scale. We also queried severity of OUD using the drug composite score of the Addiction Severity Index. Results: We found that the NAcc and mOFC response to drug cues was positively correlated with the severity of withdrawal and of OUD (ps 0.55). Withdrawal, but not craving, mediated the effect of OUD severity on NAcc cue-reactivity (p 0.21). Conclusions: OUD patients with higher baseline withdrawal symptoms (whether pharmacological or conditioned) have greater MCL reactivity to drug cues. Reducing the severity of withdrawal symptoms may help prevent cue-induced opioid use.

Willing to present orally: Yes

Financial Support: The Commonwealth of Pennsylvania CURE grant SAP#4100055577 (PI: Anna Rose Childress) National Institutes of Health T32 DA028874 (PIs: Anna Rose Childress and R. Christopher Pierce) National Institutes of Health R01 DA024553 (PI: Charles P. O'Brien)

Name of Sponsor (If you are NOT) a CPDD Member: Anna Rose Childress

Email Address of Sponsor : childres@pennmedicine.upenn.edu

Prefix: Dr.

First Name: Zhenhao

Last Name: Shi

Degrees: MA MD Ph.D etc:: Ph.D.

Email: zhenhaoshi@gmail.com

Company Affiliation: Department of Psychiatry, University of Pennsylvania Perelman School of Medicine

Mailing Address: 3535 Market St Ste 500

City: Philadelphia

State: PA

Zip/Postal: 19104

Country: United States

Phone: 2157461822

ID: 453
Initiation of opioid agonist treatment for opioid use disorder (OUD) among hospital patients seen by a substance use disorder (SUD) consultation service

Courtney Nordeck, Friends Research Institute, cnordeck@friendsresearch.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Other Topic: services; hospitals; medications

Abstract: Aims: To examine patient characteristics associated with initiation of opioid agonist treatment for OUD (buprenorphine or methadone) through a SUD consultation service during medical hospitalization. Methods: Participants were hospitalized medical and/or surgical patients seen by a hospital-based SUD consultation service and enrolled in the Navigation Services to Avoid Rehospitalization (NavSTAR) study. The current study examined baseline (pre-intervention) data on services received during hospitalization among patients with current OUD (N=314; 46% female, 48% white). Associations between initiation of opioid agonist treatment and patient characteristics of sex, age, race, and alcohol and cocaine use disorder diagnoses were examined using binary and multinomial logistic regression. Results: Most participants were initiated on opioid agonist treatment during hospitalization (57.6% overall; 36.3% methadone, 21.3% buprenorphine). Participants who initiated either medication were more likely to be female (OR = 1.81; 95% CI = 1.13, 2.91; p = 0.014) compared to participants who did not initiate medication. Compared to no medication, individuals who initiated methadone were more likely to be female (OR = 1.88; 95% CI = 1.09, 3.24; p = 0.024) and white (OR = 2.70; 95% CI = 1.51, 4.83; p = 0.001). Compared to participants who initiated buprenorphine, participants who initiated methadone were more likely to be white (OR = 5.30; 95% CI = 2.55, 11.01; p < 0.001) and to have comorbid cocaine use disorder (OR = 2.03; 95% CI = 1.02, 4.03; p = 0.04). Most participants who did not initiate opioid agonist treatment (77.4%) were prescribed other opioids as analgesics during their hospital stay. Conclusions: Hospitalization offers a viable opportunity to start individuals with comorbid OUD on agonist medication to alleviate withdrawal. Identifying disparities in this treatment approach is important for optimizing care.

Willing to present orally: Yes

Financial Support: NIDA R01DA037942

Name of Sponsor (If you are NOT) a CPDD Member: Jan Gryczynski

Email Address of Sponsor : jgryczynski@friendsresearch.org

Prefix: Ms.

First Name: Courtney

Middle Initial: D

Last Name: Nordeck

Degrees: MA MD Ph.D etc:: BA

Email: cnordeck@friendsresearch.org

CC Email: cnordec1@jhmi.edu

Company Affiliation: Friends Research Institute

Mailing Address: 1040 Park Avenue

Address 2: Suite 103

City: Baltimore

State: MD

Zip/Postal: 21201

Country: United States

Phone: 410-458-5399

ID: 454
A behavioral economic analysis of cannabis and opioid co-use for pain

Cecilia Bergeria, Johns Hopkins University School of Medicine, cecilia.bergeria@uvm.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Drug Interactions

Abstract: AIM: Questions remain regarding opioid and cannabis co-use to treat pain. This study used behavioral economic indices of demand to evaluate price-unconstrained consumption and price-sensitivity of opioid and cannabis consumption alone and again when the alternative was available within individuals who have current chronic or acute pain. METHODS: Participants were recruited on Amazon Mechanical Turk. Eligible participants with chronic or acute pain, an opioid prescription and current cannabis use completed a 30-minute questionnaire consisting of demographic and health-related surveys and a series of single-item or cross-price hypothetical drug purchase tasks emphasizing pain treatment. At various price points, the tasks queried purchasing behavior for 24 hours of pain relief with (1) their prescription opioid pills alone, (2) cannabis alone, (3) their prescription opioid pills with cannabis available for $10/gram, (4) cannabis with opioids available for $1/pill, and (5) cannabis alone under the hypothetical condition of having taken their usual opioid dose. RESULTS: Thirty-five screened individuals completed the entire survey, provided systematic data and passed all embedded attention checks. In the cross-price task, opioid consumption significantly decreased when cannabis was concurrently available at a fixed price. Cannabis consumption did not change when opioids were concurrently available at a fixed price. Cannabis consumption significantly increased after hypothetically taking a typical opioid dose compared to cannabis consumption with no other drug available. CONCLUSION: In this population of pain patients with current opioid and cannabis use, demand analyses suggest the availability of cannabis would robustly decrease opioid consumption for the purposes of treating pain.

Willing to present orally: Yes

Financial Support: R01DA040644, R01DA042751, R01DA04252703, T32DA007209

Prefix: Ms.

First Name: Cecilia

Last Name: Bergeria

Degrees: MA MD Ph.D etc:: Ph.D.

Email: cecilia.bergeria@uvm.edu

CC Email: cberge21@jhmi.edu

Company Affiliation: Johns Hopkins University School of Medicine

Mailing Address: 5510 Nathan Shock Drive

City: Baltimore

State: MD

Zip/Postal: 21224

Country: United States

Phone: 5406044853

Membership Year: 2014

Sponsor: Dr. Sarah Heil

Research Interests: Behavioral Pharmacology Policy

ID: 455
Identifying opioid use disorder: Diagnosis code vs. natural language processing

Vivienne Zhu, Medical University of South Carolina, zhuv@musc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Dependence

Abstract: AIM: Diagnoses recorded in the electronic health record (EHR) utilizing the International Classification of Diseases (ICD9/ICD10) may incompletely document opioid use disorder (OUD). Patient information about OUD may also be available in clinical notes and can be identified using natural language processing (NLP). METHODS: we developed NLP approaches to identify OUD and explored the concordance between ICD9/ICD10 coded OUD and NLP identified OUD. EHRs from 35,302 adult non-cancer patients receiving chronic opioid therapy (COT) between 2013 and 2018 at the Medical University of South Carolina (MUSC) were studied. COT was defined as the use of an opioid analgesic prescription greater than 70 days. Of 35,302 individuals receiving COT, 26,477 (75%) patients were randomly selected as a training set (containing 717,531 clinical notes) to develop an NLP lexicon and NLP algorithms. RESULTS: Using an NLP software (Lingumatics I2E), we generated 2,886 terms (with abbreviations, synonyms, and morphologic variations) that represent OUD mentions in clinical notes, including abuse, dependence, or overdose. The I2E built-in negations were used to exclude false mention(s) of OUD (e.g., “no,” “never have,” “deny,” “his girlfriend”). The NLP approach identified 1,606 patients (6.1%) with positive OUD mention(s) in their clinical notes. In the coded data (ICD9: 305.5,304.0,304.2,304.7,965.0; ICD10: F11.1, F11.2, T40.(0-5)X(1-3), T40.60(1-4)), there were 1,154 patients (4.4%) with an OUD diagnosis. The overlap between ICD coded and NLP identified OUD included 678 patients. Moreover, of NLP identified OUD, 928 (57.8%) patients had no ICD9/ICD10 coded OUD. Of ICD9/ICD10 identified OUD, 476 (41.2%) patients had no NLP identified OUD evidence from clinical notes. CONCLUSION: Our preliminary data demonstrated that using both the diagnosis code and NLP extracted OUD evidence in clinical notes can improve our ability to identify OUD patients from EHR. The NLP performance evaluation using test dataset is underway. The full report will be available for presentation.

Willing to present orally: Yes

Financial Support: NIH/NIDA 2K12DA031794-06A1

Name of Sponsor (If you are NOT) a CPDD Member: Kathleen T. Brady

Email Address of Sponsor : bradyk@musc.edu

Prefix: Dr.

First Name: Vivienne

Last Name: Zhu

Degrees: MA MD Ph.D etc:: MD, MS

Email: zhuv@musc.edu

CC Email: viviennezh@gmail.com

Company Affiliation: Medical University of South Carolina

Mailing Address: 135 Cannon Street

City: Charleston

State: South Carolina

Zip/Postal: 29425

Country: United States

Phone: 8437922970

ID: 456
The effects of needle gauge and syringe barrel capacity on syringe cleaning and possible HIV/HCV transmission

William Zule, RTI International, zule@rti.org

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: AIDS/Immune

Abstract: AIM: People who inject drugs (PWID) use various needles and syringes that influence the risk of HIV and hepatitis C virus (HCV) transmission. This presentation focuses on how variations in needle gauge and syringe barrel capacity used by PWID in western North Carolina may affect syringe cleaning practices and the risk of HIV and HCV transmission. METHODS: Data sources included semi-structured interviews with PWID and obtaining needles and syringes from syringe exchange programs and pharmacies in western North Carolina. Needle and syringe dead space was measured using a gravimetric technique. The effects of needle gauge on syringe rinsing time were measured using a stopwatch. We used mathematical computations to calculate the effect of need gauge and barrel capacity on HIV/HCV viral burden that may be transferred by syringe sharing. RESULTS: To date we have completed 22 interviews with PWID (69% male) who inject opioids (25%), methamphetamine (8%) or both (67%) from five counties in western North Carolina. 42% reported using 30-gauge and 58% using 29-gauge needles. Mean dead space in low dead space syringes with 29-and 30-gauge needles was 3.4 µL and 2.6 µL respectively. The mean times required to complete two 1-mL rinse on syringes with 29- and 30-gauge needles were 30 and 33 seconds respectively. Rinsing twice with 0.5 mL of water left 4 times more HIV/HCV in the syringe compared with two 1.0 mL rinses. CONCLUSION: Although the 30-gauge needles had slightly less dead space than 29-gauge needles, these needles took longer to rinse. The increased time required to rinse a syringe, may reduce the volume of water used thereby increasing the HIV viral burden remaining in a syringe that could transferred by sharing. Smaller (i.e. 0.5 mL) barrel capacities may also reduce the volume of water used for rinsing and increase the HIV/HCV viral burden.

Willing to present orally: Yes

Financial Support: This research was supported by the cooperative agreement number 5UG3DA044823 from the National Institute on Drug Abuse.

Prefix: Dr.

First Name: William

Middle Initial: A.

Last Name: Zule

Degrees: MA MD Ph.D etc:: Dr.P.H.

Email: zule@rti.org

Company Affiliation: RTI International

Contact Title: Research Health Analyst

Mailing Address: P.O. Box 12194

City: Research Triangle Park

State: NC

Zip/Postal: 277092194

Country: United States

Phone: (919) 485-5555

Membership Year: 2006

Sponsor: Drs. Carl Leufefeld and Linda Cottler

ID: 457
Imaging the dopamine system with [11C]PHNO PET in recently abstinent tobacco smokers compared to nonsmokers

Katina Calakos, Yale University, katina.calakos@yale.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Imaging

Abstract: AIM. Nicotinic activation of mesolimbic dopaminergic neurons triggers dopamine release in the striatum and underlies reinforcement of smoking. Most smokers who attempt to quit relapse within two weeks; this may be attributed to dopaminergic deficits. The aim of this work was to compare the dopamine system in recently abstinent smokers and nonsmokers using positron emission tomography (PET) imaging with [11C]PHNO, a striatal D2/3 receptor agonist radioligand. It was hypothesized that abstinent smokers would exhibit "blunted" striatal dopamine release vs. nonsmokers as seen in abstinent alcohol and cocaine users. METHODS. Smokers (n=11) and nonsmokers (n=12) participated in 2 same-day [11C]PHNO scans. A baseline scan was acquired following bolus injection of [11C]PHNO (495.1 ± 37.3 MBq; 2.2 ± 0.3 μg). Amphetamine (0.5 mg/kg, PO) was then administered three hours before a second [11C]PHNO scan (480.6 ± 39.6 MBq; 2.4 ± 0.3 μg). PET data were analyzed with SRTM2 (reference region: cerebellum) to measure [11C]PHNO binding potential (BPND) in caudate, putamen, and ventral striatum. BPND is the steady state ratio of specifically bound to free tracer, which is proportional to D2/3 receptor availability. BPND was measured at baseline and post-amphetamine. Percent change in BPND (%ΔBPND) before and after amphetamine, an indirect measure of dopamine release, was compared between groups. RESULTS. Data reflect mean ± SEM %ΔBPND. Preliminarily, abstinent smokers (S) exhibit significantly smaller magnitudes of amphetamine-induced dopamine release than nonsmokers (NS) in putamen (S: 12.6% ± 1.6, NS: 17.7% ± 1.5; $p < 0$ .05); trending differences emerge in ventral striatum (S: 20.1% ± 4.0, NS: 27.7% ± 1.7; $p < 0$ .10). CONCLUSIONS. These findings are consistent with evidence of "blunted" dopamine release in individuals with other addictive disorders compared to controls. Our findings suggest that deficits in dopamine transmission persist during tobacco smoking withdrawal, which may impair quit attempts. SUPPORTED BY NIDA R01DA038832, NIDA K02DA031750, and NIAAA K01AA024788.

Willing to present orally: Yes

Financial Support: NIDA R01DA038832, NIDA K02DA031750, and NIAAA K01AA024788.

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Kelly P. Cosgrove

Email Address of Sponsor : kelly.cosgrove@yale.edu

Prefix: Ms.

First Name: Katina

Middle Initial: C

Last Name: Calakos

Degrees: MA MD Ph.D etc:: BA

Email: katina.calakos@yale.edu

CC Email: kcalakos@gmail.com

Company Affiliation: Yale University

Mailing Address: 300 George Street

City: New Haven

State: CT

Zip/Postal: 06511

Country: United States

Phone: 7186877768

ID: 458
Evaluating the effect of extended-release naltrexone on HIV risk in patients presenting for opioid-use disorder treatment

Jean Fleuriscar, CUNY School of Medicine, jfleuri000@citymail.cuny.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: AIDS/Immune

Abstract: AIM: Nonmedical opioid-use is associated with HIV risk behaviors (RB). Extended-release naltrexone (XR-NTX) is FDA-approved for the treatment of opioid-use disorder (OUD), but it's ability to affect HIV RB has not been characterized. We compared HIV RB before and after one injection of XR-NTX in patients presenting for OUD treatment. We hypothesized that XR-NTX would reduce HIV RB, particularly drug RB. METHODS: The study used a mixed-method approach. A secondary data analysis was conducted from studies evaluating XR-NTX for OUD treatment at a research clinic in New York City. HIV RB was assessed using the HIV Risk Assessment Battery (RAB), a valid and reliable instrument measuring drug and sexual RB for HIV contraction. RAB scores were compared before and after treatment using the Wilcoxon test. Semi-structured interviews were also conducted with subjects one month after their first XR-NTX injection and analyzed for themes in HIV RB. RESULTS: 28 participants completed the HIV Risk Assessment Battery (RAB) at baseline and one month after their first XR-NTX injection. The sample had a mean age of 30.5 (SD=9.9), were predominately male (92.9%) and white (75%), 57% (16) used prescription opioids and 43% (12) were heroin users, 57% (16) used intranasally or smoked, 11% (3) intravenously and 32% (9) orally. Baseline mean RAB scores were 4.14 (SD=2.0) for the total score, 0.39 (SD=0.7) for drug risk, and 3.75 (SD=1.9) for sexual risk. One month after the injection, there was a significant decrease in the mean total RAB score (3.57, SD=2.0, p=.025), and drug risk (0.14, SD=0.4, p=.008), but not the sexual risk (3.4, SD=2.0, p=.164). CONCLUSION: In a group of patients presenting for OUD treatment with XR-NTX there was a significant reduction in HIV RB and particularly drug RB. At baseline, this sample had relatively low risk which could be due to harm reduction initiatives in New York City.

Willing to present orally: Yes

Financial Support: R25DA035161

Name of Sponsor (If you are NOT) a CPDD Member: Adam Bisaga

Email Address of Sponsor : Adam.Bisaga@nyspi.columbia.edu

Prefix: Mr.

First Name: Jean

Last Name: Fleuriscar

Degrees: MA MD Ph.D etc:: BS

Email: jfleuri000@citymail.cuny.edu

Company Affiliation: CUNY School of Medicine

Mailing Address: 22 myrtle ave.

City: New York

State: NY

Zip/Postal: 11550

Country: United States

Phone: 5165671371

ID: 459
Developing a model of care for Substance Use in Pregnancy and Parenting Services in Sydney, Australia

Carolyn Day, University of Sydney, carolyn.day@sydney.edu.au

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Topic: Perinatal

Abstract: Aim: Substance use disorders are more common in men than women, but women may experience greater social scrutiny and adverse impacts due to social expectations, especially in their roles as mothers. These women tend to be less engaged with health and community services due to myriad complex barriers including fear of discrimination, punitive approaches in relation to child removal and a lack of trauma-informed service models. The Sydney Local Health District has one of the largest substance use in pregnancy programs in Australia. This study aimed to develop an evidence-based model-of-care that enhances continuity-of-care delivered across different hospital and community services to meet the needs of women who use substances. Methods: Semi-structured interviews with 40 service providers involved in the care of women who use substances involved in perinatal care and community-based follow-up (e.g. obstetrics, neonatology, addiction, community services, social work and paediatrics) were undertaken. Results: Participants reported that successful engagement with clients was facilitated by client-centred approaches and usually relied on staff with particular personal qualities, training and experience. Barriers to engagement included institutional priorities, policies and practices that impeded continuity-of-care and collaboration between providers across an integrated care network. Role clarity, team governance, negotiated case management, adequate staff resources and opportunities to reflect on team practices, were important factors influencing collaboration across disciplines and agencies. Conclusions: Effective integrated care for pregnant women with substance use disorders requires organisational structures, goals, policies and staff resources to support building trust and engagement with clients, as well as collaboration between teams and agencies. Integration of diverse health services is critical to successfully engaging women with substance abuse disorders in care. Perspectives of consumers are yet to be included, so findings related to women's needs are based on service providers' views.

Willing to present orally: Yes

Financial Support: Sydney Local Health District, New South Wales Australia.

Name of Sponsor (If you are NOT) a CPDD Member: Adrian Dunlop

Email Address of Sponsor : Adrian.Dunlop@hnehealth.nsw.gov.au

Prefix: Dr.

First Name: Carolyn

Middle Initial: A

Last Name: Day

Degrees: MA MD Ph.D etc:: PhD

Email: carolyn.day@sydney.edu.au

Company Affiliation: University of Sydney

Mailing Address: Central Clinical School (C39)

Address 2: Disicpline of Addiciton Medicine

City: Sydney

State: NSW

Zip/Postal: 2006

Country: Australia

Phone: +61295158817

ID: 460
Risk factors for current cigarette smoking among U.S. college graduates

Sulamunn Coleman, University of Vermont, sulamunn.coleman@uvm.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Epidemiology

Abstract: AIM Educational attainment is a well-established risk factor for smoking, with U.S. college graduates (Bachelor's degree or higher) at especially low risk. Nevertheless, 12-15% of all U.S. adult smokers are college graduates. The present study examined how well-established, sociodemographic risk factors other than educational attainment associate with smoking risk in a U.S. nationally representative sample of college graduates. METHODS Data from the most recent six years of the National Survey on Drug Use and Health (2011-16) were used to examine smoking risk in association with the intersection of age, sex, race/ethnicity, poverty status, past-year mental illness, past-year alcohol abuse/dependence, and past-year drug abuse/dependence using Classification and Regression Tree (CART) modeling. RESULTS Overall smoking prevalence in U.S. college graduates was 9.9%. Past-year drug abuse/dependence was the strongest risk factor for current smoking. Among those with past-year drug abuse/dependence, smoking prevalence ranged from 23.8-66.3% and was conditional on the presence of co-occurring past-year alcohol abuse/dependence, poverty, age, sex, past-year mental illness, and race/ethnicity. Among the college educated without these risk factors present, prevalence was 8.0%. CONCLUSION Substance use disorders appear to be the strongest predictors of smoking among college graduates, although other well-established risk factors for smoking are also relevant to college-educated adults. Moreover, when risk factors for smoking co-occur, the same strikingly high smoking prevalence rates typically associated with less-educated populations are seen among the college educated. An important distinction is that most of these major risk factors are less likely to be present among the college educated

Willing to present orally: No

Financial Support: None

Name of Sponsor (If you are NOT) a CPDD Member: Stephen Higgins, Ph.D.

Email Address of Sponsor : stephen.higgins@uvm.edu

Prefix: Dr.

First Name: Sulamunn

Last Name: Coleman

Email: sulamunn.coleman@uvm.edu

CC Email: src233@psu.edu

Company Affiliation: University of Vermont

Mailing Address: PO Box 123

City: Websterville

State: Vermont

Zip/Postal: 05678

Country: United States

Phone: 8025225236

ID: 461
High-energy phosphates restoration after eight weeks of creatine supplementation in female methamphetamine users

Young-Hoon Sung, The University of Utah, yh.sung@utah.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Imaging

Abstract: AIM: Novel methamphetamine (MA) treatments are divided into at least three categories based on their mechanism-of-action: 1) Neurotoxicity prevention/remediation; 2) Apoptosis reduction; and 3) Depression treatment. Creatine monohydrate may fulfill each of these roles, as it protects against oxidative damage in rodents (Royes, 2006), supports mitochondria by increasing phosphocreatine (Allen, 2012), and reduces depression in female adolescents (Kondo, 2011) and adults (Lyoo, 2012). Female MA users have significantly lower brain phosphocreatine than males (Sung, 2013), and both animal and human data suggest females respond better to creatine. Thus we are conducting a prospective study of creatine's effect on brain chemistry and depression in female MA users. METHODS: Phosphorus-31 spectroscopy (31P-MRS) and the Hamilton depression rating scale (HAMD) were used to assess changes over eight weeks of creatine (5g/day) vs. placebo. Recruitment is ongoing. To date, nineteen subjects have been enrolled in a randomized clinical trial. Pre- and post-treatment 31P-MRS scans measure in vivo brain chemistry, using a two dimensional chemical shift imaging free induction decay pulse sequence (TR/TE=3000/2.3ms). Multivariate linear mixed models were used for the longitudinal data analyses. RESULTS: There was a significant increase in brain phosphocreatine levels following eight weeks of creatine, as compared with placebo (p=0.03). Creatine was also associated with significantly reduced depression symptoms scores, starting at 2 weeks (p CONCLUSION: These preliminary results suggest that brain energy metabolism and comorbid depression are targeted and improved by creatine in female MA users, and add to the evidence for oxidative stress and mitochondrial dysfunction in MA neurotoxicity. We conclude that creatine is a hypothesis-driven strategy for female MA users, that may: (a) increase brain phosphocreatine; (b) reduce depression; and (c) provide neuroprotection and repair.

Willing to present orally: No

Financial Support: Supported by NIH R01 DA043248

Name of Sponsor (If you are NOT) a CPDD Member: PERRY RENSHAW

Email Address of Sponsor : perry.renshaw@hsc.utah.edu

Prefix: Dr.

First Name: Young-Hoon

Last Name: Sung

Degrees: MA MD Ph.D etc:: MD

Email: yh.sung@utah.edu

Company Affiliation: The University of Utah

Mailing Address: 383 Colorow Drive

City: Salt Lake City

State: UT

Zip/Postal: 84108

Country: United States

Phone: 801-503-0270

ID: 462
Predictors of baseline and recent non-fatal opioid overdose among a cohort of people who inject drugs in Melbourne, Australia

Penelope Hill, Burnet Institute, penny.hill@burnet.edu.au

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: Aim Opioid overdose is a major public health problem globally, with overdose incidence and mortality increasing at rapid rates in North America, and similar trends emerging associated with morbidity and mortality in Australia. Many people who inject drugs (PWID) are at risk of opioid overdose. In this study we use data from MIX, a cohort study of younger PWID that has been running since 2008, to identify the predictors of ever and recent non-fatal opioid overdose of PWID in Melbourne. Methods The prevalence of reports of lifetime and recent opioid overdose were calculated from MIX cohort data (N=757). Associations between these outcomes and sociodemographic characteristics, drug and injecting related behaviours and self-reported health service use were examined using multivariate logistic regression. Results Half (52%) of the cohort reported opioid overdose prior to or during the study, with 42% of the cohort reporting opioid overdose at baseline, and 23% in the past six months. Reports of opioid overdose at baseline were significantly associated with older age, for the 25-29 year old group (AOR: 2.62, p=0.017, 95%CI: 1.19-5.80) and ≥ 30 year old group (AOR: 3.62, p=0.002, 95%CI: 1.58-8.26); high frequency of alcohol consumption (4+ times a week) (AOR: 1.83, p=0.006, 95%CI: 1.19-2.82); and recent access of ambulance services (AOR: 2.07, p=0.04, 95%CI: 1.01-4.28). Reports of recent opioid overdose were also significantly associated with high frequency of alcohol consumption (4+ times a week) (AOR: 2.83, p=0.003, 95%CI: 1.42-5.63); and recent access of ambulance services (AOR: 10.9, p < 0 .001, 95%CI: 4.28-27.80). Conclusion Significant associations were found between higher weekly frequency of alcohol consumption, recent access to ambulance services, and older age. Our findings underscore the importance of further research into recent predictors of opioid overdose and investigation of longitudinal patterns of opioid overdose.

Willing to present orally: Yes

Financial Support: The MIX study was funded by The Colonial Foundation Trust and the Australian National Health and Medical Research Council (NHMRC Project Grant #545891). PD is supported by an NHMRC Senior Research Fellowship. PH is supported by a Research Training Program Postgraduate Scholarship.

Name of Sponsor (If you are NOT) a CPDD Member: Suzanne Nielsen

Email Address of Sponsor : suzinielsen@yahoo.com

Prefix: Ms.

First Name: Penelope

Last Name: Hill

Email: penny.hill@burnet.edu.au

Company Affiliation: Burnet Institute

Mailing Address: 85 Commercial Rd

City: Melbourne

State: VIC

Zip/Postal: 3004

Country: Australia

Phone: +61 03 8506 2393

ID: 463
The relationship between life time history of physical and sexual trauma with cannabis use in individuals with psychosis.

Anahita Bassir Nia, Yale University School of Medicine, anahitabasir@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Dependence

Abstract: Background: Individuals with history of childhood physical and sexual trauma are at increased risk of developing cannabis use disorder, especially in patients with psychosis. But there is lack of evidence on the long lasting effects of trauma on cannabis use. In this study we investigated life time history of cannabis use in individuals with history of physical and sexual trauma. Methods: This is a cross-sectional study of patients with acute psychosis admitted to a dual diagnosis unit at Mount Sinai Beth Israel hospital, New York. Positive history of sexual and physical abuse was extracted from the Life Event Checklist (LEC) and Drug History Questionnaire was used for life time history of cannabis use. Severity of psychosis was measured using Positive and Negative Syndrome Scale (PANSS). Results: A total number of 118 subjects were enrolled in the study. Mean age was 35.98 (SD 12.06) and 69.8% of subjects were male. History of childhood sexual or physical trauma was positive in 34.2% of subjects. There was no significant difference in age, gender, or severity of acute psychosis between individuals with positive and negative history of trauma. Subjects with positive history of trauma significantly had longer lifetime history of cannabis use, compared to controls (13.07, SD 12.50, vs. 7.78, SD 8.73, respectively). This difference remained significant after controlling for age and gender (B 4.40, CI 95% .236-8.575). Conclusion: History of sexual or physical abuse associates with longer periods of cannabis use later in life in individuals with psychosis.

Willing to present orally: Yes

Financial Support: This study did not have external funding resources.

Prefix: Dr.

First Name: Anahita

Last Name: Bassir Nia

Degrees: MA MD Ph.D etc:: MD

Email: anahitabasir@gmail.com

Company Affiliation: Yale University School of Medicine

Mailing Address: 76 Country Club Dr.

City: Woodbridge

State: CT

Zip/Postal: 06525

Country: United States

Phone: 646-591-8617

Membership Year: 2017

Sponsor: Dr. Yasmin Hurd, PhD

Research Interests: Psychiatric/Medical Morbidity,Treatment

ID: 464
Eat-sleep-console as a treatment for infants with neonatal abstinence syndrome

Alicia Allen, University of Arizona, aliciaallen@email.arizona.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Perinatal

Abstract: Aim: Neonatal abstinence syndrome (NAS) in infants has increased in incidence as a result of the increased prevalence of in-utero exposure to opioids (and other drugs). Pharmacologic treatment of NAS with morphine is common to alleviate withdrawal symptoms (e.g., inconsolability, tremors). However, recent research suggests non-pharmacological interventions may be favorable over pharmacological. We sought to examine differences in average length of stay (LOS) and morphine doses in a cohort of infants that were treated before implementation of the new Eat-Sleep-Console (ESC) model as compared to the cohort who was treated in the new model. Methods: ESC was launched in July 2017. Prior to launch, infants with NAS were treated with morphine as indicated per Finnegan score. Post launch, infants with NAS were treated with an ESC model and provided morphine when necessary (rather than as a first approach). We abstracted data from medical records to capture LOS and morphine dose for each infant treated for one year before and one year after ESC launch. Results: On average, the pre-launch infants (n=23) stayed 26.6 (standard error: ± 3.0; range: 9-68) days and had 145.7 (standard error: ± 24.6; range: 13-504) doses of morphine. In contrast, infants treated in the FC-NAS program (n=22) stayed, on average, 6.4 (standard error: ± 0.5; range: 4-13) days and had 0.2 (standard error: ± 0.1; range: 0-3) doses of morphine. Conclusions: Babies who were cared for by the new ESC model had reduced lengths of stay by 76% and morphine doses by more than 99%. These observations suggest that treating babies with NAS with non-pharmacological comfort care using ESC prior to administering medication reduces both length of stay and morphine exposure substantially. Additional research is needed to replicate these findings in other communities and examine long-term neurodevelopmental effects.

Willing to present orally: Yes

Financial Support: None

Prefix: Dr.

First Name: Alicia

Middle Initial: M.

Last Name: Allen

Degrees: MA MD Ph.D etc:: Ph.D., MPH

Email: aliciaallen@email.arizona.edu

Company Affiliation: University of Arizona

Mailing Address: 3950 South Country Club Drive, Suite 330

Address 2: Department of Family & Community Medicine

City: Tucson

State: AZ

Zip/Postal: 85716

Country: United States

Phone: 520-626-8157

Membership Year: 2013

Sponsor: Dr. Teresa Franklin and Dr. Dorothy Hatsukami

Research Interests: Epidemiology,Treatment

ID: 465
Graphic warning labels affect hypothetical purchasing behavior among smokers living with HIV

Meredith Berry, University of Florida, mberry@ufl.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Behavior

Abstract: Aims: Smoking and smoking-related disease disproportionately affect persons living with HIV compared to the general population. Although graphic warning labels (GWLs) included on tobacco product packaging have been associated with increased knowledge about tobacco harms, scant research exists to evaluate the behavioral and choice effects of GWLs and price on tobacco products in behavioral economic choice tasks, which have implications for real-world purchasing decisions. This study used a behavioral economic task to fill this gap. Methods: Participants (n=222) completed an online survey. Participants made a series of hypothetical choices between a cigarette pack with a GWL at a fixed price ($7.00) and a cigarette pack with a text-only warning label at increasing prices (ranging from $3.50 to $14.00, in $0.25 increments). Participants also answered questions about smoking characteristics and demographic questions. Results: More than one-quarter of participants were willing to pay more to avoid the GWLs. The remainder of participants were driven exclusively by price, with 69.8% of participants consistently choosing the cheaper pack of cigarettes regardless of label. Across all participants, overall monetary choice value observed for cigarette packs (mean = $7.75) was significantly higher than if choice was driven exclusively by price ($7.00). When GWL and text-only cigarette packs were equal in price, the vast majority of participants chose the text-only warning label (87.4%). Strong significant positive correlations were also observed between choice for cigarette pack and agreement with statements that indicated the GWL would stop individuals from having a cigarette or think about quitting. No significant correlations were observed between demographic variables and choice between GWL or text-only label cigarette packs. Conclusions: These data suggest GWLs reduce the reinforcing effects of cigarettes, consistent with studies showing attempts to avoid viewing GWLs. GWLs may reduce cigarette packs purchased among persons living with HIV.

Willing to present orally: Yes

Financial Support: NIDA R01DA042527

Prefix: Dr.

First Name: Meredith

Last Name: Berry

Degrees: MA MD Ph.D etc:: Ph.D

Email: mberry@ufl.edu

Company Affiliation: University of Florida

Mailing Address: PO Box 118210

Address 2: Department of Health Education and Behavior

City: Gainesville

State: FL

Zip/Postal: 32611

Country: United States

Phone: 4075951560

Membership Year: 2016

Sponsor: Dr. Matthew W. Johnson, PhD

Travel Award: NIDA Diretor's 2018

ID: 466
Substance use, discrimination, and HIV-risk among men who have sex with men in Massachusetts

Abigail Batchelder, Massachusetts General Hospital, Harvard Medical School, abatchelder@mgh.harvard.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Stimulants, alcohol, and other substance use treatment

Topic: AIDS/Immune

Abstract: AIM: Men who have sex with men (MSM), particularly those with additional stigmatized identities and behaviors, including substance use, are disproportionately at risk for experiencing discrimination and acquiring HIV. We hypothesized that MSM with stigmatized identities and behaviors would experience more discrimination, which would interact with substance use in relation to HIV risk behaviors. METHODS: Data from the Boston 2014 National HIV Behavioral Surveillance MSM cycle were used to assess associations between socio-demographics, substance use, discrimination, and condomless anal sex. RESULTS: Of the total sample of MSM (n=382), 17.6% reported experiencing verbal discrimination, 8.3% workplace discrimination, 2.6% healthcare discrimination, and 3.8% physical assault. Experienced discrimination differed by socio-demographics (i.e., ethnicity and income), and three measures of substance use (stimulant use and history of drug and alcohol treatment), and number of condomless anal sex partners. Those with a history of drug treatment were 9.47 and 8.29 times more likely to report healthcare discrimination and physical assault, respectively (OR= 9.47; 95%CI: 2.09,42.79; p=.003 and OR= 8.29; 95%CI: 2.27,30.21, p≤.001). Using negative binomial regression, healthcare discrimination and physical assault moderated relationships between all three measures of substance use and condomless anal sex such that those who experienced health discrimination or physical assault and substance use reported significantly more sex partners (IRRs of significant interaction terms ranged from 4.36-32.19). The mean (SD) number of partners for those with drug treatment and physical assault histories was 51.00 (99.34) compared to 1.67 (4.26) for those who denied both (F(3, 307)=27.46, p≤.001; IRR:10.42; 95%CI: 2.45,44.33). CONCLUSION: In Massachusetts, MSM with stigmatized identities and behaviors, including substance use, disproportionately experience discrimination. Substance use in conjunction with healthcare discrimination or physical assault was associated with increased sexual risk behavior among MSM. While Massachusetts has many progressive policies, greater efforts to reduce discrimination among people who use substances are needed.

Willing to present orally: Yes

Financial Support: Data was collected as part of the National HIV Behavioral Surveillance (NHBS) System, supported by NIAID (NU62PS005074). Dr. Batchelder's time was supported, in part, by National Institute on Drug Abuse K23DA043418.

Name of Sponsor (If you are NOT) a CPDD Member: Adam Carrico

Email Address of Sponsor : a.carrico@miami.edu

Prefix: Dr.

First Name: Abigail

Middle Initial: W

Last Name: Batchelder

Degrees: MA MD Ph.D etc:: Ph.D., M.P.H.

Email: abatchelder@mgh.harvard.edu

CC Email: abby.batchelder@gmail.com

Company Affiliation: Massachusetts General Hospital, Harvard Medical School

Contact Title: Assistant Professor

Mailing Address: One Bowdoin Square

Address 2: 7th floor

City: Boston

State: MA

Zip/Postal: 02143

Country: United States

Phone: 917-940-1283

Sponsor: Dr. Adam Carrico and Dr. Elise Riley

Research Interests: Health Services,Psychiatric/Medical Morbidity

Date of Membership: applying for Reg. 1.1.19

ID: 467
National american indian and alaska native leadership academy: Passing the feather from generation to generation

Anne Skinstad, University of Iowa, anne-skinstad@uiowa.edu

Abstract Category: Program Descriptions

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Work Force Development

Topic: Behavior

Abstract: AIM: The National American Indian and Alaska Native Leadership Academy has been offered annually since 2011 to provide culturally-adapted leadership development and fiscal support for the American Indian and Alaska Native (AI & AN) substance abuse workforce. The program is based on the ATTC Leadership Institutes (LI) offered between 2004 and 2011, which trained behavioral health leaders to navigate both public and private funding opportunities, as well as to administer a complex behavioral health agency. Results from previous Leadership Institutes (LI) indicated that participation as a protégé in the LI resulted in change in jobs and promotions (Bergthold, Skinstad, & Summers, 2010). The most important reason for this positive experience was the close supportive relationship that developed between the mentees and their mentors and peers. METHODS: However, the Leadership Academy (LA) is specifically adapted for AI & AN behavioral health professionals. Applicants go through an extensive assessment process, including an interview with an elder or spiritual leader and qualitative interviews. Applicants are paired with a native mentor, who collaborates with them to develop a personal leadership plan. Through the support of their mentors, Leadership Academy mentees develop their community-based projects and strengthen their leadership skills. RESULTS: With the adaptation of the Leadership Academy towards culturally informed Native practices, we have seen improved career advancement for academy graduates. As of 2018, the Leadership Academy has 13 graduates who have gone on to found organizations within their communities such as a cancer prevention project and a native transgender organization. These leaders who are able to "walk in both worlds" are highly-valued and needed in the field of behavioral health. CONCLUSION: Leadership Academy graduates benefit from the support received by mentors and ATTC staff to become stronger leaders who will successfully lead AI & AN behavioral health organizations into the 2020s.

Willing to present orally: Yes

Financial Support: This program is supported by SAMHSA

Prefix: Dr.

First Name: Anne

Middle Initial: H.

Last Name: Skinstad

Degrees: MA MD Ph.D etc:: Ph.D.

Email: anne-skinstad@uiowa.edu

Company Affiliation: University of Iowa

Contact Title: Associate Professor (Clinical)

Mailing Address: 105 River Street, N420 CPHB

City: Iowa City

State: IA

Zip/Postal: 52242

Country: United States

Phone: -3193841481

Fax: (319) 335-5564

Membership Year: 2004

Sponsor: Richard Spence/Ken Winters

Research Interests: Molecular Biology Pharmacology Behavioral Pharmacology

ID: 468
Nonpharmacological adjunct treatment for postpartum women with opioid use disorder: A review of the literature beyond pharmacology treatment

Alicia Allen, University of Arizona, aliciaallen@email.arizona.edu

---

Abstract Category: Literature Review

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Perinatal

Abstract: Aim: Since 2005, opioid use disorder (OUD) in pregnant women has increased by more than 400%. Although medication assisted treatment provides necessary pharmacological care for OUD during the perinatal period, effective adjunct non-pharmacological treatments have not been systematically identified. This is especially important during the postpartum period when motivation to comply with treatment may wane due to a wide variety of triggers. Therefore, we sought to review the existing knowledge regarding nonpharmacological adjunct treatments for OUD during the postpartum period. Methods: In July 2018, we searched two electronic databases (PubMed, PsychInfo) for published scientific literature on nonpharmacological adjunct treatments for postpartum women with OUD. To be included, articles had to in English and be original research articles. We did not restrict publication date. Results: We identified a total of 38 articles, and 4 articles met eligibility criteria. These studies utilized integrated programs within the clinical setting (n=2), a workplace voucher program (n=1) and a patient navigator (n=1). While all 4 articles reported a favorable effect of these programs on postpartum opioid use, only 2 reported numerical results. The workplace voucher program observed greater abstinence at 6 months in the active (52% abstinent) versus control (33%) group. The patient navigator program reported 95% of participants were abstinent at 30 days postpartum. Conclusions: In 2017, ASAM released a joint statement with ACOG recommending the use of adjunct nonpharmacological treatments for OUD during the perinatal period. Despite this, very few studies have published efficacy data on nonpharmacological adjunct treatments for the postpartum period. Identification of adjunct nonpharmacological treatments designed to the unique needs of postpartum women is of critical public health importance, and further research is needed.

Willing to present orally: Yes

Financial Support: None

Prefix: Dr.

First Name: Alicia

Middle Initial: M.

Last Name: Allen

Degrees: MA MD Ph.D etc:: Ph.D., MPH

Email: aliciaallen@email.arizona.edu

Company Affiliation: University of Arizona

Mailing Address: 3950 South Country Club Drive, Suite 330

Address 2: Department of Family & Community Medicine

City: Tucson

State: AZ

Zip/Postal: 85716

Country: United States

Phone: 520-626-8157

Membership Year: 2013

Sponsor: Dr. Teresa Franklin and Dr. Dorothy Hatsukami

Research Interests: Epidemiology,Treatment

ID: 469
Between- and within-person associations between opioid risk and depression, suicidal ideation, pain severity, and pain interference

Alexander Bennett, National Development and Research Institute, Inc. , bennett@ndri.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Prevention

Abstract: Aims To better understand overdose (OD) risk and to help develop tailored overdose risk prevention interventions, we surveyed 235 opioid-using veterans residing in New York City, 2014-2017. Our aim is to better understand how predictors of OD may be associated with physical and mental health challenges, including pain severity and interference, depression and suicidal ideation over time. Methods Participants completed monthly assessments of a validated Opioid Risk Behavior Scale (ORBS), pain severity and interference, suicidal ideation, and depression for up to two years. To estimate between-person and within-person associations with opioid risk behavior, this analysis includes 145 veterans with at least four assessments. Veterans were assessed an average of 14 times (sd = 6.2; maximum = 25) over 611 days (median = 710; sd = 162; minimum = 166; maximum = 735). Between- and within-person associations between time-varying covariates and ORBS were examined in mixed-effects regression models. Results The level of each time-varying covariate at the average of time (between-person effect) was positively related to ORBS for pain severity (B=0.61, $p < .001$) and interference (B=0.54, $p < .001$), suicidal ideation (B=0.80, $p < .001$), and depression (B=0.24, $p < .001$). In addition, deviations from individuals' personal trajectories (within-person effect) were positively related to ORBS for pain severity (B=0.30, $p < .001$) and interference (B=0.36, $p < .001$), suicidal ideation (B=0.29, $p < .001$), and depression (B=0.11, $p < .001$). Conclusions US military veterans endure myriad biopsychosocial challenges elevating risk for opioid-related overdose. When pain severity, pain interference, suicidal ideation and depression were higher than usual relative to each individual's quadratic growth trajectory, opioid risk behavior was higher. Likewise, when these health issues were less of a problem than usual, opioid risk behavior was lower. Understanding the multidiminsional nature of military veterans' health challenges over time may support the development of more robust interventions.

Willing to present orally: Yes

Financial Support: This study was funded by National Institutes of Health, National Institute on Drug Abuse 5R01DA036754-04

Name of Sponsor (If you are NOT) a CPDD Member: Andrew Rosenblum

Email Address of Sponsor : Rosenblum@ndri.org

Prefix: Dr.

First Name: Alexander

Middle Initial: S

Last Name: Bennett

Degrees: MA MD Ph.D etc:: Ph.D.

Email: bennett@ndri.org

CC Email: bennett.alexander001@gmail.com

Company Affiliation: National Development and Research Institute, Inc.

Mailing Address: 71 W 23rd Street, 4th Floor

City: New York

State: NY

Zip/Postal: 10010

Country: United States

Phone: 2128454473

ID: 470
The association between benzodiazepines, overdose death, and buprenorphine discontinuation among people receiving buprenorphine

Tae Woo Park, Boston University School of Medicine, taewoo.park@bmc.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Sedative-Hypnotics

Other Drug Category: Opioids

Topic: Treatment

Abstract: Aims: Benzodiazepines are commonly prescribed to patients with opioid use disorder receiving buprenorphine treatment, yet may increase overdose risk. However, prescribed benzodiazepines may decrease buprenorphine treatment discontinuation which risks return to illicit drug use. We aimed to test the association between benzodiazepine prescription and fatal opioid overdose, non-fatal opioid overdose, all-cause mortality, and buprenorphine discontinuation. Methods: This was a retrospective cohort study of 63,389 Massachusetts residents aged 11 years or older who received buprenorphine treatment between January 2012 and December 2015 utilizing 7 individually linked data sets from Massachusetts government agencies. Filled benzodiazepine prescription during buprenorphine treatment was the main independent variable. The primary outcome was fatal opioid overdose. Secondary outcomes were non-fatal opioid overdose, all-cause mortality, and buprenorphine discontinuation. We used Cox proportional hazards models to calculate hazards ratios for receipt of benzodiazepine treatment compared to no benzodiazepine receipt restricted to periods during buprenorphine treatment adjusting for demographics, Medicaid insurance status, mental disorder diagnoses, and recent mental health-related inpatient or emergency department encounters. Results: Of the 63,389 individuals who received buprenorphine, 24% filled at least one benzodiazepine prescription during buprenorphine treatment. Seventeen percent of the 183 deaths from opioid overdose occurred when individuals received benzodiazepines during buprenorphine treatment. Benzodiazepine receipt during buprenorphine treatment was associated with an increased risk of fatal opioid overdose adjusted hazard ratio [AHR]=3.02; 95% CI 1.97-4.62). Benzodiazepine receipt during buprenorphine treatment was also associated with non-fatal opioid overdose (AHR=1.98; 95% CI 1.58-2.48), all-cause mortality (AHR=2.05; 95% CI 1.64-2.55), and a decreased risk of buprenorphine discontinuation (AHR=0.78; 95% CI 0.75-0.80). Conclusions: Receipt of benzodiazepines was associated with increased risk of opioid overdose and all-cause mortality but also decreased risk of buprenorphine discontinuation among people receiving buprenorphine. These findings suggest using caution both when prescribing or discontinuing benzodiazepines in such patients.

Willing to present orally: Yes

Financial Support: The Massachusetts Department of Public Health created this cross-sector database and provided technical support for these analyses. This project was supported by the National Institute on Drug Abuse, National Institutes of Health, through grant number K23DA044321.

Name of Sponsor (If you are NOT) a CPDD Member: Alexander Walley

Email Address of Sponsor : alexander.walley@bmc.org

Prefix: Dr.

First Name: Tae Woo

Last Name: Park

Degrees: MA MD Ph.D etc:: MD, MSc

Email: taewoo.park@bmc.org

Company Affiliation: Boston University School of Medicine

Mailing Address: 774 Harrison Avenue

Address 2: Doctor's Office Building, 9th Floor

City: Boston

State: MA

Zip/Postal: 02118

Country: United States

Phone: 617-414-1906

Membership Year: 2013

Sponsor: Dr. Richard Saitz, M.D., MPH

Research Interests: Psychiatric/Medical Morbidity Health Services

ID: 471
Long-term impact of medications for opioid use disorder on mortality and re-infection among those with infective endocarditis

Joji Suzuki, Brigham and Women's Hospital, jsuzuki2@bwh.harvard.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim: Hospitalizations for infective endocarditis (IE) among patients with opioid use disorder (OUD) are increasing, but the impact of medication treatment on long-term outcomes remains unknown. The aim of this retrospective study was to report on rates of mortality and re-infection to endocarditis among those who were offered medication treatment during the index hospitalization. Methods: The medical records of 26 individuals who were offered medication treatment for OUD while admitted for IE between 2013 and 2015 were included. Data on mortality and re-infection to IE were extracted. Log-rank test compared time to death and re-infection among those who opted for buprenorphine, methadone, or declined medications. Chi-square compared the proportions of death and re-infection between each medication separately to those who declined medications. Results: Eight individuals initiated buprenorphine, 8 initiated methadone, and 10 declined medications. Mean duration of follow-up was 45 months (range 34-56 months). Four (15.4%) individuals died during follow-up, with 1-, 2-, and 3-year survival being 92.3%, 88.5%, 84.6% respectively. No deaths were reported among those who opted for buprenorphine, but 3 and 1 deaths in those who opted for methadone and declined medications, respectively. Survival analysis showed no differences between the 3 groups but trended towards significance (p=0.066). Re-infection to endocarditis occurred in 10 (38.5%) individuals, with 1-, 2-, and 3-year free from re-infection being 70.8%, 66.7% and 58.0%, respectively. Log-rank test comparing all 3 groups' time to re-infection, nor chi-square comparing proportion of re-infection for each medication separately to those who declined medication, did not identify any differences. Conclusions: IE is a severe, life-threatening illness, with high rates of mortality and re-infection. Results suggest that initiation of medication alone may not be sufficient to alter incidence of adverse outcomes long-term. More research is needed to identify optimal strategies for treating IE during and after hospitalization.

Willing to present orally: Yes

Financial Support: K23DA042326

Name of Sponsor (If you are NOT) a CPDD Member: Roger Weiss

Email Address of Sponsor : rweiss@mclean.harvard.edu

Prefix: Dr.

First Name: Joji

Last Name: Suzuki

Degrees: MA MD Ph.D etc:: MD

Email: jsuzuki2@bwh.harvard.edu

Company Affiliation: Brigham and Women's Hospital

Mailing Address: 60 Fenwood Rd

City: Boston

State: MA

Zip/Postal: 02115

Country: United States

Phone: 617-732-5752

ID: 472
Individual-level and neighborhood-level sociodemographic predictors of cigarette smoking during pregnancy using birth record and Census data

Alexandra Houston-Ludlam, Washington University in St. Louis, ahousto@wustl.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Epidemiology

Abstract: AIM: Cigarette smoking during pregnancy (SDP) is a high-priority public health concern and provides a model system for investigating risk-processes in addiction. This study applies logistic regression analysis to understand differences in sociodemographic predictors of SDP using state birth records and Census data. METHODS: Missouri birth record data for birth years 1993-2016 identified a sample of 1,090,203 singleton births to 538,815 unique mothers, themselves born in MO 1975-1985. Logistic regressions, stratified by maternal race (White, African-American), using individual sociodemographics of maternal age, parity, educational attainment, and marital status, predicted risk for SDP (propensity score). Principal factor analysis of 1990 Census data extracted a two-factor solution: a socioeconomic advantage-disadvantage factor and a family-stability, urban-versus-rural factor. Propensity score analyses were stratified by predicted probability of SDP and evaluated the contribution of neighborhood-level risk at childbirth within quantiles. RESULTS: For White mothers, SDP prevalence was 22.4%. Logistic regression (c=0.77) showed protective effects of maternal age ≤19 (ORs:0.50-0.94, by year) and ≥31 (ORs:0.88-0.95) and both 12 years education (ORs:0.04-0.42, by year). Risk was increased by maternal age 20-26 (ORs:1.06-1.09); being unmarried (OR:2.60), having an unnamed coparent (OR:4.63), or both (OR:3.42); and by having previous childbirths (OR:1.60). For African-American mothers, SDP prevalence was 13.2%. Logistic regression (c=0.70) showed protective effects of maternal age ≤ 19 (ORs:0.17-0.65) and completing >12 years of education (ORs:0.06-0.45). Risk was increased by maternal age ≥24 (ORs:1.32-1.63); being unmarried (OR:1.91), having an unnamed coparent (OR:3.74), or both (OR:2.72); completing ≤9 years of education (OR:1.34); and by having previous childbirths (OR:1.71). Additional analyses will evaluate whether neighborhood-level risk indices confer additional risk for SDP beyond individual-level sociodemographics. CONCLUSION: Maternal sociodemographics at childbirth are associated with risk for SDP. Understanding the interplay between individual- and neighborhood-level sociodemographics is important for improving assessment of SDP risk and reducing rates of SDP.

Willing to present orally: Yes

Financial Support: This work was supported in part by the National Center for Advancing Translational Sciences of the National Institutes of Health under Award Number TL1TR002344 (ANHL) and National Institute on Alcohol Abuse and Alcoholism of the National Institutes of Health under Award Numbers AA017688 (ACH), AA021492 (ACH, PAFM), AA023487 (ACH, KKB, PAFM).

Name of Sponsor (If you are NOT) a CPDD Member: Kathleen Bucholz

Email Address of Sponsor : bucholzkk@wustl.edu

Prefix: Ms.

First Name: Alexandra

Middle Initial: N

Last Name: Houston-Ludlam

Email: ahousto@wustl.edu

CC Email: ahousto@wustl.edu

Company Affiliation: Washington University in St. Louis

Mailing Address: 660 S Euclid Ave

Address 2: Box 8226

City: St Louis

State: Missouri

Zip/Postal: 63110

Country: United States

Phone: 4432238562

Sponsor: Dr. Kathleen Bucholz, Phd

Research Interests: Epidemiology,Psychiatric/Medical Morbidity

Date of Membership: applying for MIT 1.1.19

ID: 473
Can high-frequency deep rTMS to the dorsomedial prefrontal cortex/anterior cingulate cortex reduce cannabis self-administration in cannabis smokers?

Tonisha Kearney-Ramos, Columbia University Medical Center, tk2818@columbia.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Treatment

Abstract: AIM: Cannabis use disorder (CUD) is associated with diminished neural response to errors, particularly in the dorsomedial prefrontal cortex/anterior cingulate cortex (DMPFC/ACC), a region critical to conflict resolution and error processing. Attenuated activation in this region may underlie drug users' tendencies to choose riskier outcomes in the face of conflict, such as relapse to cannabis use despite adverse consequences. One way to effectively treat CUD and reduce relapse may be by increasing activity in the DMPFC/ACC through excitatory brain stimulation. The purpose of this double-blind, active sham-controlled study was to determine if 11 days of high-frequency (excitatory) deep rTMS to the DMPFC/ACC reduces the choice to self-administer cannabis. Methods: Seventeen non-treatment-seeking research volunteers with CUD were randomized to receive 11 daily sessions of active or sham DMPFC/ACC rTMS (Brainsway H7 coil, 10 Hz, 1200 pulses, 110% rMT) while inpatient for 19 days. Cannabis self-administration sessions were conducted (1) after 3 days of monitored abstinence (before rTMS) and (2) after 11 days of rTMS. In each cannabis self-administration session, participants had 6 opportunities to choose between cannabis (5.5% THC; up to 3 puffs/choice) and money ($1/puff from their study earnings). Results: The active rTMS group (n=8) decreased their cannabis intake (-4.7±5.8 choices), while the sham rTMS group (n=7) showed no changes in their choices for cannabis (-0.9±3.7 choices), suggesting a trend toward greater reductions in cannabis use following active rTMS. However, this study is ongoing with a goal of including 15 subjects per group. Conclusions: This study is the first to assess the effects of rTMS on cannabis self-administration. While data collection is still ongoing, these preliminary results indicate that (1) high-frequency DMPFC/ACC rTMS may influence cannabis self-administration, and (2) the procedures were feasible and well tolerated. Upon completion, this study will help the development of targeted non-invasive approaches to CUD treatment.

Willing to present orally: Yes

Financial Support: 5R21DA034920 (Urban); R01DA044339 (Evans)

Name of Sponsor (If you are NOT) a CPDD Member: Margaret Haney

Email Address of Sponsor : mh235@cumc.columbia.edu

Prefix: Dr.

First Name: Tonisha

Last Name: Kearney-Ramos

Degrees: MA MD Ph.D etc:: Ph.D.

Email: tk2818@columbia.edu

CC Email: tk2818@columbia.edu

Company Affiliation: Columbia University Medical Center

Mailing Address: 1051 Riverside Dr

Address 2: Unit 120

City: New York

State: NY

Zip/Postal: 10032

Country: United States

Phone: 6467746185

ID: 474
Loss Aversion in methamphetamine users: Resting-state functional connectivity and dopamine D2/D3 receptor availability

Zoe Guttman, University of California Los Angeles, zoeguttman@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Imaging

Other Topic: Neural function/Decision-making

Abstract: AIM Most people tend to display loss aversion, demonstrated using economic choice tasks in which selections are made involving potential losses and gains. When an option involves a cost, the degree to which the value of the reward is discounted as a function of the cost shows individual variation, which can be measured by modeling individual choice parameters that can then be related to markers of neural function. The context of reward-based choices that present potential losses is particularly relevant, as maladaptive choices contribute to the vulnerability to and persistence of addictive disorders. Despite studies of loss sensitivity in addictions, analysis of individual choice parameters to distinguish the nature of differences between healthy and more biased choices has not been assessed in individuals with Methamphetamine Use Disorder (MUD). Moreover, loss aversion is modulated by brain regions associated with dopamine function, which is dysregulated in addiction, yet the relationship between measures of dopamine function and loss aversion has not been directly assessed. METHODS Individuals with MUD and healthy controls (HC) completed a Loss Aversion Task where they were shown gambles offering a 50% chance of winning/losing different amounts of money, or the option to opt out and accept $5 for sure. Participants underwent functional magnetic resonance imaging to collect resting-state functional connectivity (rsFC) data, and positron emission tomography with [18F]fallypride to assess dopamine D2/D3 receptor (DRD2/3) binding potential (BPND). RESULTS rsFC of the right caudate with the dorsolateral prefrontal cortex was correlated with loss aversion and differed between MUD and HC participants. Further, loss aversion was negatively correlated with DRD2/3 BPND in the nucleus accumbens of HC, but not MUD, participants. CONCLUSION These results suggest a role for dopamine function in the right caudate in sensitivity to loss that may be dysregulated in MUD.

Willing to present orally: Yes

Financial Support: NIH Grant T32 DA024635, NIDA RO1 DA015179, NIDA RO1 DA020726, NNIDA P20 DA022539, NIDA R21 DA034928, National Center for Research Resources M01 RR00865, Endowments from the Thomas P. And Katherine K. Pike Chair in Addiction Studies and the Marjorie M. Greene Family Trust.

Prefix: Mrs.

First Name: Zoe

Middle Initial: R

Last Name: Guttman

Degrees: MA MD Ph.D etc:: BS

Email: zoeguttman@gmail.com

CC Email: zoe.guttman@gmail.com

Company Affiliation: University of California Los Angeles

Mailing Address: 2331 Outpost Drive

City: Los Angeles

State: CA

Zip/Postal: 90068

Country: United States

Phone: 6462265755

ID: 475
Revisiting the primary reinforcing effects of the delta-opioid receptor agonist SNC80

Emily Jutkiewicz, University of Michigan, ejutkiew@umich.edu

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Behavior

Abstract: AIM: Studies investigating the abuse-related behavioral effects of nonpeptidic delta-opioid receptor (DOR) agonists have revealed inconsistent results. While the DOR agonist SNC80 fails to maintain self-administration behavior in rhesus monkeys and does not alter intracranial self-stimulation thresholds in rats, SNC80 produces conditioned place preference and robustly stimulates locomotor activity in rodents similar to psychomotor stimulants. Therefore, the present study evaluated the primary reinforcing properties of SNC80 as compared with cocaine in rats. METHODS: Naïve male Sprague Dawley rats (6-8 rats per experiment) were implanted with indwelling intravenous catheters and, following recovery, were placed in operant chambers 5 d/week for 60 min sessions. Responding on the active nosepoke resulted in delivery of SNC80 (0-0.32 mg/kg/infusion) or cocaine (0-0.56 mg/kg/infusion) under a fixed ratio 1 (FR1) schedule of reinforcement and illumination of the house light was followed by a 10 sec blackout during which responding was recorded but had no scheduled consequence. SNC80-maintained responding was also evaluated under a FR30 and progressive ratio schedule of reinforcement and under different types of extinction conditions. RESULTS: SNC80 maintained responding in a dose-dependent manner yielding an inverted U-shaped function, consistent with that seen with cocaine. At a dose of 0.32 mg/kg/infusion, SNC80 maintained responding in all rats, such that they earned between 30-40 infusions during 60 min sessions. Interestingly, in some rats, a single convulsion occurred during the first or second infusion during the initial self-administration session only but did not deter responding. As work requirements increased, SNC80 failed to maintain responding and, in the absence of SNC80 or SNC80-paired cues only, responding extinguished. CONCLUSION: These data suggest that the DOR agonist SNC80 has primary reinforcing effects in rats but likely is a weak reinforcer.

Willing to present orally: Yes

Financial Support: This work was supported in part by R01 DA042092.

Name of Sponsor (If you are NOT) a CPDD Member: William W. Stoops, Ph.D.

Email Address of Sponsor : william.stoops@uky.edu

Prefix: Dr.

First Name: Emily

Last Name: Jutkiewicz

Degrees: MA MD Ph.D etc:: Ph.D

Email: ejutkiew@umich.edu

CC Email: ejutkiew@umich.edu

Company Affiliation: University of Michigan

Mailing Address: 1150 W Medical Center Drive

Address 2: 1301 MSRB 3 A220A

City: Ann Arbor

State: MI

Zip/Postal: 48109-5632

Country: United States

Phone: 7347648612

ID: 476
Alcohol use, dependence and abuse in sexual minority adults by sex: Evidence from a national survey, 2015-2017

Christopher Thompson, Theo Pediatric Health, staff@peds.clinic

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Epidemiology

Abstract: Aim: Sexual minorities (SM) appear to have an increased prevalence of alcohol use, dependence and abuse, but recent studies have mostly been based on convenience samples. With replicates from a nationally representative study, we sought to estimate the 12-month prevalence of alcohol use, dependence and abuse in sexual minority adults (self-identifying as gay/lesbian or bisexual) stratified by sex. We compared these estimates to those from the heterosexual subpopulation. Methods: The study population consists of non-institutionalized US community residents age 18-years-and-older. Estimates rely on nationally representative samples from 3 successive National Surveys on Drug Use and Health (NSDUH), 2015-17, assessed via computer-assisted self-interviews (aggregate n= 128,740 participants 18-years-and-older). Analysis included weighted cross-tabulations and Poisson regression to compute an adjusted prevalence ratio by sexual identity. Results: In this nationally-representative survey, sexual minorities reported an increased prevalence of alcohol use (n=6,696), dependence (n=609) and abuse (n=457) compared to heterosexuals at all ages. The weighted prevalence of alcohol use was 69.8% (CI: 69.4%, 70.3%) in heterosexuals compared to 79.6% (CI: 78.35, 80.9%) in SMs. All SM subgroups (gay/lesbian or bisexual) have an increased prevalence of problematic behaviors: for example, the 12-month prevalence of alcohol abuse is 3.9% (CI: 3.7%, 4.1%) among heterosexual men, yet it reaches 6.2% (CI 4.7%, 8.0%) among gay men. Conclusion: Sexual minorities have significantly elevated prevalence of alcohol use, dependence and abuse. Age-by-age estimates indicate that this disparity persists through the entire lifespan. Such patterns, if confirmed by future research, could have an impact on patient care, such as by informing prediction algorithms that detect the possibility of alcohol withdrawal after a recent hospital admission.

Willing to present orally: Yes

Financial Support: T32DA021129 [CLT] and R25DA030310 [RLP]

Name of Sponsor (If you are NOT) a CPDD Member: Robert Peralta

Email Address of Sponsor : rp32@uakron.edu

Prefix: Dr.

First Name: Christopher

Middle Initial: L

Last Name: Thompson

Degrees: MA MD Ph.D etc:: MD, MHI

Email: staff@peds.clinic

CC Email: electro.thompson@gmail.com

Company Affiliation: Theo Pediatric Health

Mailing Address: 1408 Jerome St.

City: Lansing

State: MI

Zip/Postal: 48912

Country: United States

Phone: 5122499886

ID: 477
Development of a human Pavlovian conditioned approach paradigm

Lora Cope, University of Michigan, lcope@med.umich.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: General

Topic: Behavior

Abstract: Aim Using a paradigm called Pavlovian conditioned approach (PCA), animal researchers have demonstrated that there are individual differences in the extent to which drug-associated cues acquire incentive motivational properties: “Sign-trackers” tend to approach and engage the reward-associated cue, whereas “goal-trackers” tend to approach and engage the site of reward delivery. Animals that are more reactive to the reward-associated cue also show greater drug-seeking reinstatement, increased preference for drugs over food, and faster acquisition of drug self-administration relative to goal-trackers. This paradigm has not been applied extensively in humans, however. Here we present preliminary data from an adapted PCA paradigm involving eye-tracking to measure sign- and goal-tracking in humans. Methods Eleven healthy young adults (mean age=21.9 years, SD=2.2; 5 female) completed a mechanical PCA task while wearing eye-tracking hardware. On each of 63 trials, a lever appeared for 3 seconds on a variable-time 20-second schedule. After lever retraction, a token was delivered into the reward magazine on one-third of trials. Eye gaze location during lever presentation was used to categorize participants as sign-trackers, goal-trackers, or intermediate responders following the formula [(lever gaze – magazine gaze) / (lever gaze + magazine gaze)]. Results The mean number of lever presses per trial was 1.77 (SD=1.84, min=0.00, max=5.21). The mean percent time of eye gaze directed at the magazine was 24.80% (SD=20.44, min=3.59, max=60.96). The mean percent time of eye gaze directed at the lever was 46.70% (SD=22.48, min=14.88, max=86.62). Six participants were categorized as sign-trackers (mean=.714, SD=.096), two as goal-trackers (mean=-.482, SD=.110), and three as intermediate responders (mean=.145, SD=.169). Conclusion This is one of the first demonstrations of an adapted animal PCA task in humans. Results showed adequate variance for further testing of personality, behavioral, and substance use variables. This paradigm has the potential to inform investigations of addiction risk from a behavioral perspective.

Willing to present orally: Yes

Financial Support: This research was supported by the National Institute on Drug Abuse (P50 DA037844; T32 DA007268) and the University of Michigan (Mcubed, Third Century Initiative).

Prefix: Dr.

First Name: Lora

Middle Initial: M.

Last Name: Cope

Degrees: MA MD Ph.D etc:: Ph.D.

Email: lcope@med.umich.edu

CC Email: copelora@gmail.com

Company Affiliation: University of Michigan

Mailing Address: 130 Edison Avenue

City: Ypsilanti

State: MI

Zip/Postal: 48197

Country: United States

Phone: 3129199844

Fax: 734-998-7992

Membership Year: 2014

Sponsor: Dr. Robert A. Zucker, Ph.D.and Dr. Mark llgen

Research Interests: Etiology,Neurobiology

ID: 478
Changes in non-oral abuse of OxyContin® after its abuse-deterrent reformulation among people assessed for treatment at substance abuse treatment centers using the NAVIPPRO® ASIMV® System

Rachelle Rodriguez, Purdue Pharma, LP, rachelle.rodriguez@pharma.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: AIM To evaluate changes in non-oral abuse of extended-release (ER) oxycodone (OxyContin®) after reformulation with abuse-deterrent properties (ADP). METHODS This study is a regulatory requirement for Category 4 abuse-deterrent labeling assessing non-oral abuse, and specific routes of abuse (swallowing whole, other oral, insufflation, and injecting), contrasting abuse before (3Q2008-2Q2010) and after (1Q2011-4Q2014) reformulation in adults entering substance abuse treatment programs. Because a single measure of abuse cannot optimally describe opioid abuse, several measures were evaluated using Poisson regression: abuse count per number of assessments (Model 1), abuse count per dosage units dispensed (Model 2), abuse count adjusted dosage units dispensed (Model 3). Comparator opioids (immediate-release (IR) oxycodone, ER morphine, IR hydrocodone combinations, other Schedule II opioids [excluding OxyContin, methadone]) were evaluated to provide a reference for reductions in abuse due to competing opioid abuse interventions. RESULTS Non-oral OxyContin abuse substantially declined (model range: -30.7% to -53.3%), while abuse increased for IR oxycodone (+27.6% to +67.7%) and other Schedule II opioids (+13.2% to +31.6%). It ranged from a slight decline to an increase for IR hydrocodone combinations (-6.5% to +19.3%) and slightly declined for ER morphine (9.6% to +0.2%). ER morphine estimates using Model 2 were excluded due to model limitations. Reductions in OxyContin abuse were also observed when stratified by insufflation (42.0% to 60.5%) and injecting (33.3% to 52.9%), but not for swallow whole, and other oral. Comparators (IR oxycodone not assessed) did not have similar relative declines for insufflation and injecting. CONCLUSION Reformulating OxyContin with ADP has resulted in notable and sustained reductions in nonoral abuse, insufflation and injecting in adults entering substance abuse treatment programs. These reductions are more pronounced than the changes observed for a variety of comparator opioid products, thereby disentangling the benefits of the OxyContin reformulation from other opioid abuse interventions.

Willing to present orally: Yes

Financial Support: This study was funded by Purdue Pharma L.P.

Name of Sponsor (If you are NOT) a CPDD Member: Sidney H Schnoll

Email Address of Sponsor : sschnoll@pinneyassociates.com

Prefix: Dr.

First Name: Rachelle

Middle Initial: D

Last Name: Rodriguez

Degrees: MA MD Ph.D etc:: Ph.D, MPH

Email: rachelle.rodriguez@pharma.com

CC Email: Nancy.Crudele@pharma.com

Company Affiliation: Purdue Pharma, LP

Mailing Address: 201 Tresser Blvd

City: Stamford

State: CT

Zip/Postal: 06901

Country: United States

Phone: 203-588-7389

ID: 479
Methamphetamine injection behaviors in Central Appalachia: Implications for rural harm reduction programs

April Young, University of Kentucky, College of Public Health, april.young@uky.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Behavior

Abstract: Aim: While the opioid crisis in rural Appalachia has recently gained deserved media and scientific attention, methamphetamine use in the area has re-emerged and is not well characterized. This analysis compares injection risk behaviors and syringe service program (SSP) design preferences among rural people who inject methamphetamine (PWIM) to their counterparts who inject other drugs. Methods: Interviewer-administered surveys elicited information from 261 PWUD recruited using respondent-driven sampling. Eligibility criteria included residence in a five-county area of Eastern Kentucky, being age 18 or older, and having used opioids or injected drugs to get high in the past 30 days. T-tests and chi-square tests were used to test the hypothesis that methamphetamine injection was associated with increased injection risks. Results: Overall, 51% had injected methamphetamine in the past 30 days. PWIM were more likely to have visited an SSP ($p=0.005$) but did not differ demographically from those who injected other drugs. Among people who injected any drug in the past 30 days (n=177), PWIM reported more past 30 day injections (75.1 vs. 28.7, $p=0.011$), multiple injection episodes (36.0 vs. 8.6, $p < 0.001$), syringe re-use (9.7 vs. 4.1, $p=0.003$), use of unclean syringes (9.9 vs. 2.3, $p=0.011$) and other injection equipment (21.2 vs. 3.3, $p=0.010$), and use of drugs that were prepared with a used syringe (9.8 vs. 3.3, $p < 0.001$). PWIM also more often let someone use their used syringe (12.5 vs. 3.9, $p=0.010$) and/or other injection equipment (21.5 vs. 6.9, $p < 0.001$). When asked about SSP design preferences, PWIM were more likely to prefer a mobile ($p < 0.001$), vending machine ($p=0.011$), and/or home delivery ($p=0.008$) model compared to those who injected other drugs. Conclusion: PWIM reported unique preferences for SSP design and more injection risk behavior. Rural SSPs need to consider drug-related differences in behavior and design preferences to maximize reach and impact.

Willing to present orally: Yes

Financial Support: This study was funded by the National Institute on Drug Abuse, CDC, SAMHSA, and the Appalachian Regional Commission (ARC) (UG3 DA044798; PIs: Young and Cooper); the content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH, CDC, SAMHSA, or ARC.

Prefix: Dr.

First Name: April

Last Name: Young

Email: april.young@uky.edu

Company Affiliation: University of Kentucky, College of Public Health

Mailing Address: 111 Washington Avenue, Office 211C

City: Lexington

State: KY

Zip/Postal: 40536

Country: United States

Phone: 859-218-2090

ID: 480
Social influence and adolescent marijuana use: A latent space adjusted approach

Albert Burgess-Hull, National Institute of Health, albert.burgess-hull@nih.gov

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Adolescent

Other Topic: Prevention

Abstract: Aim: Social influence (SI; social contagion) is frequently cited as a primary determinant of non-illicit substance-use in adolescence. Although some studies have found evidence that SI contributes to the development of adolescent marijuana use, other studies have found no effect. Gaps in prior work may be due to the difficulty of methodologically uncoupling SI effects from other causal processes. The current study examined whether social influence was associated with adolescent marijuana use using the novel latent space adjusted estimator of Xu (2018) which reduces bias in SI estimates resulting from unobserved traits in the influence and selection process. Methods: Linear-in-means OLS regression models with latent space coordinates estimated from dynamic latent space mixture models (Sewell & Chen, 2017) were fit to three waves (10th, 11th, and 12th grade) of social network data drawn from a single high school in the PROSPER Peers study. Two groups of models were estimated: (a) a naïve SI model controlling for lagged past-month marijuana use, and (b) a SI model controlling for latent space coordinates and covariates related to marijuana use development. Results: In 10th grade, there was no effect of peer marijuana use on 11th grade marijuana use. In 11th grade, peer marijuana use was positively associated with individual marijuana use in 12th grade in both SI models. Latent space adjusted estimates indicated that increasing the proportion of an adolescent's social connections who smoke marijuana from 0% to 25% in 11th grade, increased an adolescent's likelihood of smoking marijuana in 12th grade by ~ 13.9 percentage points (0.555, p = 0.015). Conclusion: This study indicates that social connections with marijuana users in the 11th grade of high school has an impact on later marijuana use development. Preventive interventions may need to account for the time-varying role of social influence effects on marijuana use.

Willing to present orally: Yes

Financial Support: This work was conducted with funding from the National Institute on Drug Abuse (grant R01 DA013709) and co-funding from the National Institute on Alcohol Abuse and Alcoholism.

Name of Sponsor (If you are NOT) a CPDD Member: Dr. David Epstein

Email Address of Sponsor : DEPSTEIN@intra.nida.nih.gov

Prefix: Dr.

First Name: Albert

Middle Initial: J

Last Name: Burgess-Hull

Degrees: MA MD Ph.D etc:: Ph.D

Email: albert.burgess-hull@nih.gov

CC Email: burgesshull@wisc.edu

Company Affiliation: National Institute of Health

Mailing Address: 01B342 251 Bayview Blvd, Baltimore, MD 21224

City: Baltimore

State: Maryland

Zip/Postal: 21224

Country: United States

Phone: 206-498-5023

ID: 481
A recent six-city study of prescription stimulant use and misuse among 10 to 17 year olds

Linda Cottler, University of Florida, lbcottler@ufl.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Adolescent

Abstract: AIM. Non-medical stimulant use is once again increasing and this use can lead to cardiac problems including an irregular heartbeat, heart failure, and seizures. Repeated misuse of prescription stimulants can cause psychosis, anger, paranoia, and other adverse health outcomes. Very few studies have examined use and misuse among adolescents as young as 10. The purpose of this study was a systematic and rigorous surveillance of medical and non-medical stimulant use among youth. METHODS. The Study of Non-Oral Administration of Prescription Stimulants (SNAPS), fielded in September 2018) recruited 1,777 youth 10 to 17 years of age from urban, rural and suburban areas in six US cities across the 3 most populous states in the US (California, Texas, Florida) using an entertainment venue intercept approach. RESULTS. The proportion of the total SNAPS sample that used prescription stimulants lifetime was 11%; 7.6% used in the past 30 days. Among youth who used stimulants, 30.1% reported any non-medical use and 13.8% reported any non-oral use: 9.7% snorted or sniffed, 4.1% smoked 0.5% injected them and 1% used them some other way. Patterns of use will be presented, stratified by 3 age groups (10 to 12 vs 13 to 15 vs 16 to 17). CONCLUSION. This study advances the literature by building on the landmark N-MAPSS study and provides data on youth use and misuse in the critical moment of emerging stimulant misuse.

Willing to present orally: Yes

Financial Support: This study was funded by Arbor Pharmaceuticals LLC.

Prefix: Dr.

First Name: Linda

Middle Initial: B.

Last Name: Cottler

Degrees: MA MD Ph.D etc:: Ph.D., MPH

Email: lbcottler@ufl.edu

CC Email: tmillay@ufl.edu

Company Affiliation: University of Florida

Contact Title: Associate Dean for Research

Mailing Address: P.O. Box 100231

Address 2: 2004 Mowry Drive

City: Gainesville

State: FL

Zip/Postal: 32611-0231

Country: United States

Phone: (352) 273-5468

Fax: 352-273-5365

Membership Year: 1992

Sponsor: L.N. Robbins & T.J. Crowley

Marian W. Fischman Lecturship Award: 2010

Travel Award: 1987

ID: 482
Longitudinal study of treatment need perception among people with substance use disorders in the United States: Low perceived need is both common and stable over time

Renee Goodwin, The City University of New York and Columbia University, renee.goodwin@sph.cuny.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Treatment

Other Topic: perception of treatment need

Abstract: AIM: Most individuals with substance use disorders (SUDs) do not seek treatment. One core issue in this regard is that many individuals with SUDs do not perceive a need for treatment. However, as prior studies have been almost entirely cross-sectional, it is presently unclear whether perceptions of low treatment need persist over time, and which factors might predict malleability versus stability of these perceptions. This study investigated whether treatment need perceptions among individuals with SUDs in the United States changed over a three-year period. METHODS: The current study used data from Wave 1 and Wave 2 of the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC), selecting those who met DSM-5 criteria (initially DSM-IV, but subsequently recoded) for an alcohol use disorder (AUD) or non-alcohol SUD at Wave 1 and continued to have at least one diagnostic symptom at Wave 2. RESULTS: The overwhelming majority of individuals with AUD (81.9%) and other SUDs (66.5%) did not perceive a need for treatment at Wave 1 (baseline). Of those, 90.7% of individuals with AUD and 77.3% of individuals with SUD retained those perceptions of low treatment need three years later, such that the odds of changing perceptions were significantly lower compared with that of not changing them (AUD: aOR=0.15 (0.1, 0.2)); SUD: aOR=0.32 (0.3, 0.4)). Among those with AUD, younger age (aOR=1.5 (1.2, 1.9)), lower income (aOR=1.7, 1.4, 2.2)), being currently or formerly married (aOR=1.5 (1.2, 2.0)), and a greater number of alcohol symptoms (aOR= 3.0 (2.3, 3.9)) significantly predicted transition to perception of a need for treatment from Wave 1 to Wave 2. CONCLUSION: Outreach campaigns could be designed to help increase insight and potential need for treatment among individuals with SUDs, as these perceptions may present enduring barriers to treatment seeking without intervention.

Willing to present orally: Yes

Financial Support: Work was supported by grant #DA20892 from NIH/NIDA.

Prefix: Dr.

First Name: Renee

Middle Initial: D.

Last Name: Goodwin

Degrees: MA MD Ph.D etc:: Ph.D., M.P.H.

Email: renee.goodwin@sph.cuny.edu

CC Email: rgoodwin7@gmail.com

Company Affiliation: The City University of New York and Columbia University

Mailing Address: 55 West 125th Street

Address 2: Department of Epidemiology and Biostatistics

City: New York

State: NY

Zip/Postal: 10027

Country: United States

Phone: 6463449849

Membership Year: 2013

Sponsor: Dr. Lisa Dierker and Dr. Silvia Martins

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 483
Relations between smartphone use, smartphone addiction and delay discounting

Bethany Harris, Texas A&M University, bharris7@tamu.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Behavioral Addiction - Smartphone Addiction

Topic: Behavior

Abstract: Aim: Despite the many benefits associated with smartphone technology, concern has grown over the potential for dependency upon smartphones or smartphone addiction. Delay discounting, or the perceived decline in the value of rewards as delay in receipt of the reward increases, has been shown to be related to various substance use disorders as well as many behavioral addictions such as internet addiction, gambling disorder, and internet gaming disorder. However, the relationship between smartphone addiction and delay discounting has yet to be investigated. Methods: For the current research, emerging adults (n = 71) were assessed for smartphone addiction utilizing the Smartphone Addiction Scale (SAS) and delay discounting utilizing the Delay Discounting Questionnaire (DDQ). Additionally, participants documented how much time they had spent using their smartphone devices in the prior week. Results: A significant negative relationship was found between objective smartphone use and delay discounting. Similarly, a significant negative relationship was found between smartphone addiction as measured by the SAS and delay discounting. However, the effect of delay discounting on smartphone addiction was found to be mediated by objective smartphone use. Conclusion: As expected, delay discounting was found to be directly associated with both smartphone use and smartphone addiction. However, the results from the mediation analysis suggest that this relationship is contingent upon amount of smartphone use in that one's smartphone use may be a behavior through which delay discounting exerts influence on addiction potential.

Willing to present orally: Yes

Financial Support: Not applicable

Name of Sponsor (If you are NOT) a CPDD Member: Sherecce Fields

Email Address of Sponsor : safields@tamu.edu

Prefix: Mrs.

First Name: Bethany

Middle Initial: L

Last Name: Harris

Degrees: MA MD Ph.D etc:: BS in Cognitive Neuroscience, BS in Psychology

Email: bharris7@tamu.edu

Company Affiliation: Texas A&M University

Mailing Address: 2709 Darwood Court

City: Bryan

State: TX

Zip/Postal: 77807

Country: United States

Phone: 9792408633

Sponsor: Dr. Sherecce Fields, PhD

Research Interests: Etiology,Prevention

Date of Membership: appying for MIT 1.1.19

ID: 484
Somatic complaints and past-30 day opioid misuse among justice-involved children

Sarah Clerjuste, University of Florida , sarahclerjuste@ufl.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: Aim. Individuals in the criminal justice system are especially vulnerable to the adverse effects of opioid misuse. Research on justice-involved children (JIC) is needed to uncover the variables that predict opioid misuse initiation to prevent misuse or reduce harm in this population. Somatic symptoms are symptoms experienced in the body, such as physical sensations, movements or experiences, which can cause severe distress and dysfunction. These include pain, nausea, dizziness, and fainting. In this study, we hypothesize that somatic complaints will be associated with a higher likelihood of opioid misuse among Florida JIC. Methods. The study examined statewide data on 79,960 JIC in the Florida Department of Juvenile Justice database. Logistic regression was employed to investigate an ordinal measure of somatic complaints at first screen and a binary outcome measure of past-30 day illicit or nonmedical opioid use at final screen while controlling for sociodemographic and mental health factors. Results. Nearly 28% of JIC had a history of one or more somatic complaints. Compared to those with no history of somatic complaints, JIC with a history of one or two somatic complaints were 1.23 times more likely to misuse opioids in the past 30 days and those with three or four somatic complaints were 1.5 more likely to meet criteria for past-30 day opioid misuse. Conclusions. Individuals may consume illicit or nonmedical prescription opioids to manage somatic symptoms—indicating that increased access to healthcare may reduce misuse. Risk of opioid overdose sharply increases as justice-involved individuals are released from correctional settings largely due to a reduced tolerance to opioids as a result of incarceration and diminished access to legal medicines that are provided in the justice system. Justice systems must ensure seamless access to quality healthcare services as individuals transition from correctional settings to their communities.

Willing to present orally: Yes

Financial Support: Financial Support: This research was supported by the University of Florida Substance Abuse Training Center in Public Health from the National Institute of Drug Abuse of the National Institutes of Health under award number T32DA035167 (PI: Dr. Linda B. Cottler) and the PhD Preparatory Project at the University of Florida (PI: Dr. Henry Frierson). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health or the Florida Department of Juvenile Justice.

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Linda B. Cottler

Email Address of Sponsor : lbcottler@ufl.edu

Prefix: Ms.

First Name: Sarah

Last Name: Clerjuste

Email: sarahclerjuste@ufl.edu

CC Email: micahjohnson3000@gmail.com

Company Affiliation: University of Florida

Contact Title: STOMP Lab

Mailing Address: 2004 Mowry Rd

City: Gainesville

State: FL

Zip/Postal: 32609

Country: United States

Phone: 3522739307

ID: 485
Resting-state fMRI connectivity in awake nonhuman primates: Modulation by cocaine self-administration

Fernando de Moura, McLean Hospital, Harvard Medical School, FMOURA@mclean.harvard.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Stimulants

Topic: Imaging

Other Topic: Behavior

Abstract: AIM: Several resting-state functional magnetic resonance imaging (fMRI) studies have documented altered cortico-striatal activity in long-term cocaine abusers. The present study aimed to evaluate a novel protocol designed to investigate the effects of self-administered cocaine concurrent with functional neuroimaging in nonhuman primates. Changes in resting state fMRI connectivity using a seed-based approach from the dorsal striatum, i.e., putamen, a brain region associated with reinforcement learning and thought to play a key role in drug-seeking and relapse-related behaviors, was determined following cocaine self-administration. METHODS: Three adult rhesus macaques (2 male, 1 female) were trained to self-administer intravenous cocaine in a mock MRI scanner under a fixed ratio 3; timeout 10-min schedule of reinforcement, in which holding down a lever for 1-sec constituted a completed ratio. All subjects underwent three scan sessions on a 3.0 Tesla TIM Trio MRI scanner in which they could earn two injections of 0.1 mg/kg/inj cocaine during each session. Functional connectivity maps were derived from a seed region placed in bilateral putamen and data from the 10-min timeout period before cocaine was compared with the 10-min timeout period following cocaine self-administration. RESULTS: All subjects self-administered the maximum 0.2 mg/kg cocaine available per scan session. Following cocaine self-administration, alterations in resting-state connectivity were identified in regions associated with motoric control, reward, and cognitive processing, e.g., medial orbitofrontal cortex, insula, thalamus, precentral gyrus, and cerebellar vermis. CONCLUSIONS: A number of circuits previously identified in human cocaine abusers were also found to be disrupted in the present study, suggesting that this protocol may be a translationally relevant and effective means to characterize functional changes to brain networks in response to self-administered drugs. Imaging drug-taking behavior in nonhuman primates may provide a means to characterize the development of altered neural systems and to understand how they are affected by candidate medications.

Willing to present orally: Yes

Financial Support: DA039306

Prefix: Dr.

First Name: Fernando

Middle Initial: B

Last Name: de Moura

Degrees: MA MD Ph.D etc:: PhD

Email: FMOURA@mclean.harvard.edu

Company Affiliation: McLean Hospital, Harvard Medical School

Mailing Address: 115 Mill Street

City: Belmont

State: MA

Zip/Postal: 02478

Country: United States

Phone: 2107935810

Membership Year: 2017

Sponsor: Dr. Jack Bergman and Dr. Lance McMahon

Research Interests: Behavioral Pharmacology,Pharmacology

ID: 486
Effects of genetic polymorphism on ligand biased signaling: Mu-opioid receptor

Eric Vallender, University of Mississippi Medical Center, evallender@umc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Genetics

Abstract: Aims Ligand biased signaling at the mu-opioid receptor has been suggested as a means to separate positive analgesic effects from unwanted side effects. This rests on the assumption that different ligands preferentially stabilize different active forms of the receptor leading to changes in protein binding and downstream signaling. Polymorphisms in the mu-opioid receptor (A118G and C17T) have been associated with a number of behavioral and physiological differences, notably including alcohol and opiate use disorders. The goal of the present work was to determine if common polymorphisms altered ligand biased signaling profiles or, put another way, if the effects of genetic variation could be explained by changes in ligand bias. Methods Plasmids containing common human mu-opioid receptor alleles were transfected into cell lines expressing inducible luciferase reporter genes under the control of three downstream signaling pathways: cAMP, MAPK/JNK, and NFκB. Concentration response curves were generated for several mu agonists (DAMGO, β-endorphin, and morphine) and ligand bias calculated. Results Across all alleles, previous findings of ligand bias away from G-protein coupled cAMP inhibition was confirmed for both morphine and β-endorphin. However, while both polymorphisms demonstrated potency shifts on cAMP inhibition only in morphine, changes in potency for MAPK/JNK, and NFκB were observed for both morphine and β-endorphin. The bias observed for morphine is qualitatively, if not quantitatively, consistent across the three alleles while it shifts towards being less G-protein biased for β-endorphin. Conclusions This work demonstrates that common polymorphisms in the mu-opioid receptor have differential effects on downstream signaling pathways and this depends, in part, on the ligand. These results may explain apparent discrepancies between molecular data and behavioral associations and have relevance for the development of novel pharmaceuticals premised on biased agonism.

Willing to present orally: Yes

Financial Support: This work was supported by grants from the National Institutes of Health: AA019688 (EJV) and OD011104.

Prefix: Dr.

First Name: Eric

Middle Initial: J.

Last Name: Vallender

Degrees: MA MD Ph.D etc:: Ph.D.

Email: evallender@umc.edu

CC Email: ejvallender@gmail.com

Company Affiliation: University of Mississippi Medical Center

Contact Title: Associate Professor

Mailing Address: 2500 N. State Street, Room G109

City: Jackson

State: MS

Zip/Postal: 39216

Country: United States

Phone: 6019845893

Fax: 601-984-5899

Membership Year: 2010

Sponsor: Dr. Gregory Miller and Dr. Bertha K. Madras

ID: 487
Opioid misuse risk assessment in patients undergoing surgery following traumatic injury

Shweta Kapoor, UT Health Science Center at Houston, shweta.kapoor@uth.tmc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Dependence

Other Topic: Risk assessment

Abstract: Aim: The burgeoning number of opioid overdoses and deaths over the past several years has morphed into a devastating public health crisis in the United States. As a result, there is increasing empirical attention on the wide-spread misuse of opioids, particularly, diversion of prescription opioids. Surgery is a significant risk factor for prolonged opioid use. Approximately half of post-surgical patients are discharged with an opioid prescription, with as many as one-third of these patients becoming long-term opioid users. There continues to be a lack of targeted assessment to identify those at most risk for opioid misuse in post-surgical settings. The primary aim of the present study was to assess and identify post-surgical trauma patients who may be at risk for prolonged opioid use and misuse. Methods: The five-item, self-report Opioid Risk Tool (ORT) and medical record information was collected on a sample of 313 consecutively selected patients undergoing surgery at a local Level I Trauma hospital. SPSS v.25 was employed for the data analyses. Results: A total of 233 patients (66% male; 17% Spanish-speaking; mean age of 49.43) to date have provided fully complete data. The mean ORT score was 2.78 (SD=3.85), mean age of 49.43 years (SD=21.50). and ranged between 0-19. Risk to develop opioid misuse based on the ORT scores stratify the sample as low (70%), moderate (17.2%), and high (13%), with a trend suggesting higher ORT scores in men compared to women patients. Additional variables of interest, including type of trauma and prior pain diagnosis, in relation to ORT, will be reported. Conclusion: The present study indicates that approximately 30% of patients undergoing post-injury surgery are at a medium to high risk of developing opioid misuse. The results emphasize the need for improved hospital-based opioid risk assessment for patients requiring pain management following surgery.

Willing to present orally: Yes

Financial Support: None to declare

Name of Sponsor (If you are NOT) a CPDD Member: Joy M. Schmitz, PhD

Email Address of Sponsor : Joy.M.Schmitz@uth.tmc.edu

Prefix: Dr.

First Name: Shweta

Last Name: Kapoor

Degrees: MA MD Ph.D etc:: MD, PhD

Email: shweta.kapoor@uth.tmc.edu

Company Affiliation: UT Health Science Center at Houston

Contact Title: Psychiatry Resident

Mailing Address: 11127 Fermill Ct

City: Richmond

State: TX

Zip/Postal: 77407

Country: United States

Phone: 2058269430

ID: 488
Building an addiction care continuum model in North America: Lessons from an emerging integrated drug checking and supervised consumption system in Toronto, Canada

Nazlee Maghsoudi, University of Toronto, nazlee.maghsoudi@mail.utoronto.ca

---

Abstract Category: Program Descriptions

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Other

Other Topic: Integrated Addiction Services

Abstract: AIM: An addiction care continuum model integrating healthcare and social service delivery with safer consumption and safer supply interventions is being implemented to prevent overdose and injection-related harms. METHODS: Against the backdrop of nationwide opioid overdose crises driven by the use of drugs of unknown potency or toxicity, drug checking services (DCS) have emerged as part of an addiction care continuum model in the U.S. and Canada. DCS can provide people who use drugs with information on the composition and potency of street-obtained drugs to increase risk competency and personal capacity to avoid toxic substances, while simultaneously allowing for the monitoring of drug markets. Although some frontline services distribute fentanyl test strips or reagent kits, legal barriers have inhibited the adoption of DCS in the U.S. Contrastingly, in November 2017, the Government of Canada committed to authorizing and funding pilot projects providing DCS at supervised consumptions sites (SCS). A network of DCS is currently being launched in Toronto and will be co-located with existing SCS that have been integrated within public health and community health agencies, thereby combining harm reduction service delivery with access to other services including primary care, mental health care, social service programs, and scientific evaluation. RESULTS: Accompanying evaluations of DCS and SCS in Toronto will address evidence gaps on the emerging continuum of responses to addiction care by evaluating different models of service provision, under what conditions benefits can be maximized, suitability for specific subpopulations, and a variety of other indicators including successful referrals to other services. Findings at baseline to six months (January-June 2019) on overdose risk behaviors and engagement with addiction treatment among clients will be presented. CONCLUSION: Critical data will be shared on the impact of an innovative integrated DCS and SCS model on overdose and other drug-related risks for a range of settings in North America.

Willing to present orally: Yes

Financial Support: Health Canada; Canadian Institutes of Health Research; St. Michael's Hospital Foundation

Name of Sponsor (If you are NOT) a CPDD Member: Leo Beletsky

Email Address of Sponsor : lbeletsky@ucsd.edu

Prefix: Ms.

First Name: Nazlee

Last Name: Maghsoudi

Degrees: MA MD Ph.D etc:: MGA, BComm

Email: nazlee.maghsoudi@mail.utoronto.ca

Company Affiliation: University of Toronto

Mailing Address: Institute of Health Policy, Management and Evaluation, Health Sciences Building

Address 2: 155 College Street, Suite 425

City: Toronto

State: Ontario

Zip/Postal: M5T 3M6

Country: Canada

Phone: 6477027825

Biography: Nazlee Maghsoudi is pursuing a PhD in Health Services Research at the Institute for Health Policy, Management and Evaluation at the University of Toronto, and holds a Bachelor of Commerce from Queen's University and a Master of Global Affairs from the University of Toronto. Nazlee is the Knowledge Translation Manager at the Centre on Drug Policy Evaluation, where she plays a lead role in the production and dissemination of evidence-based drug policy research.

ID: 489
Qualitative evaluation of a Health Justice Partnership in inner-city Sydney, Australia

Carolyn Day, University of Sydney, carolyn.day@sydney.edu.au

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Topic: Prevention

Abstract: Aim: Health Justice Partnerships (HJPs) involve the provision of legal services within a health service and may help address some of the social determinants of health via legal remedies. HJPs may assist with issues such as housing, debt, family violence and child protection issues, which are common among clients with substance use disorders (SUD). HJPs are relatively new to Australia, and in 2015, the first HJP in New South Wales was established between the Redfern Legal Service and Sydney Local Health District (SLHD), based at Drug Health Services (DHS). This study aimed to examine SUD clients' experiences of and attitudes towards the HJP. Methods: Semi-structured interviews were conducted with the HJP clients recruited via opportunistic sampling at DHS. Human Research Ethics Committee approval was granted by SLHD and the Aboriginal Health and Medical Research Council. Interview lengths ranged from 15-60 minutes but were an average of 30-minutes and were audio-recorded and professionally transcribed. All participants were volunteers and received a $30 shopping voucher upon interview completion. Interpretive themes were established, and transcripts coded accordingly. Results: Eight female and four males aged 28-52 years were interviewed. Most clients reported seeing the HJP solicitor for more than one issue, most commonly for housing and child protection issues. All clients reported satisfaction with the service and the outcomes it provided. Clients identified mutual respect, trust and honesty; accessibility and flexibility; and continuity-of-care as the key aspects of HJP success. Legal privilege – the ability to seek help and advice without risk of mandatory reporting – was also an important feature of the service. Conclusions: HJPs can provide non-judgmental compassionate care in a flexible and accessible manner and facilitate access to justice for people with SUDs.

Willing to present orally: Yes

Financial Support: Sydney Local Health District and Redfern Legal Centre.

Name of Sponsor (If you are NOT) a CPDD Member: Adrian Dunlop

Email Address of Sponsor : Adrian.Dunlop@hnehealth.nsw.gov.au

Prefix: Dr.

First Name: Carolyn

Middle Initial: A

Last Name: Day

Degrees: MA MD Ph.D etc:: PhD

Email: carolyn.day@sydney.edu.au

Company Affiliation: University of Sydney

Mailing Address: Central Clinical School (C39)

Address 2: Disicpline of Addiciton Medicine

City: Sydney

State: NSW

Zip/Postal: 2006

Country: Australia

Phone: +61295158817

ID: 490
Transitions into and out of medical cannabis patient status among young adults

Stephen Lankenau, Drexel University Dornsife School of Public Health, sel59@drexel.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Other

Other Topic: Young adults

Abstract: Aim: Gaining access to medical cannabis as a medical cannabis patient (MCP) is premised upon obtaining a medical cannabis recommendation provided by a physician. No studies have examined reasons why MCP let their recommendation expire or lapse or the impact of transitioning out of being a MCP on cannabis use, health, or other drug use. Methods: A qualitative sample of 38 young adult MCP (18 to 26 years old) recruited in Los Angeles, California were interviewed twice: once in 2014-2015 and again between 2015-2016. Both baseline and follow up interviews captured participant experiences of past/current cannabis practices, physical/psychological health, and motivations for cannabis use. Follow-up interviews focused on changes in health and cannabis practices in the previous year. Interviews were transcribed and coded using an interative process in Atlas.ti. Results: While all had been MCP at baseline, three groups emerged by the follow-up interview: consistent MCP, i.e., recommendation was renewed (n=9); lapsed/renewed, i.e., recommendation expired for one or more days but was renewed (n=16); transitioned out, i.e., recommendation expired without renewal (n=13). Exiting MCP status removed direct access to cannabis dispensaries, and as a result, participants often experienced a change in cannabis practices. A desire to reduce marijuana use was the most commonly reported reason for an expired recommendation. Many transitioned out to better focus on other life responsibilities, such as job, school, or family. Nearly half of participants who transitioned out reported increases in other drug use with alcohol being the substance most commonly discussed. Conclusion: Transitions out of MCP status occurred both intentionally and accidentally. The most practical effect of transitions out of MCP status was a loss of access to cannabis at dispensaries. While using less cannabis was often the primary reason for exiting MCP status, increases in other drug was an unexpected effect in some cases.

Willing to present orally: Yes

Financial Support: National Institute on Drug Abuse (2R01DA034067-06A1)

Name of Sponsor (If you are NOT) a CPDD Member: Ekaterina Fedorova

Email Address of Sponsor : ekaterina_fedorova@yahoo.com

Prefix: Dr.

First Name: Stephen

Last Name: Lankenau

Degrees: MA MD Ph.D etc:: Ph.D.

Email: sel59@drexel.edu

Company Affiliation: Drexel University Dornsife School of Public Health

Mailing Address: 3215 Market Street

City: Philadelphia

State: PA

Zip/Postal: 19104

Country: United States

Phone: 267-359-6057

ID: 491
Serum BDNF levels are associated with increased gray matter (GM) volume in the striatum and reduced GM in the prefrontal cortex and hippocampus of crack-cocaine users

Hercilio Oliveira, Universidade de Sao Paulo, hercilio@usp.br

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Imaging

Abstract: Background: Crack-cocaine use has been associated with more severe neurotoxicity if compared with intranasal cocaine. However, no study has investigated the association between brain morphology and brain-derived neurotrophic factor (BDNF) levels in crack-cocaine users. Aims: 1) To assess differences in gray matter (GM) volume between crack-cocaine users, intranasal cocaine users, and controls. 2) To investigate the association between BDNF levels and GM volume in crack-cocaine users. Methods: 78 adult participants were evaluated (16 crack-cocaine, 26 intranasal cocaine, and 36 controls). Participants underwent magnetic resonance scanning after supervised detoxification and serum BDNF levels were evaluated. Images were processed and GM volumes in the regions of interest (ROIs) were obtained through Statistical Parametric Mapping (SPM) 12. Differences in GM volumes in the ROIs were tested with the General Linear Model controlling for age and years of education and were accepted after correction for multiple comparisons (pFWE

Willing to present orally: Yes

Financial Support: Fundação de Amparo à Pesquisa do Estado de São Paulo (Fapesp) Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq)

Name of Sponsor (If you are NOT) a CPDD Member: Dr Eric C. Strain

Email Address of Sponsor : estrain1@jhmi.edu

Prefix: Dr.

First Name: Hercilio

Middle Initial: Pereira

Last Name: Oliveira

Degrees: MA MD Ph.D etc:: MD

Email: hercilio@usp.br

CC Email: hercilio@usp.br

Company Affiliation: Universidade de Sao Paulo

Mailing Address: hercilio@usp.br

City: Sao Paulo

State: Brazil

Zip/Postal: 01414000

Country: Brazil

Phone: 5511984717500

ID: 492
Evidence for GABA B agonists as smoking cessation aids: A placebo-controlled perfusion fMRI study

Ariel Ketcherside, University of Pennsylvania, ariel.ketcherside@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Imaging

Abstract: AIM: Smoking cue (SC) elicited craving leads to relapse in SC-vulnerable individuals, and thus, the discovery of treatments that target SC-elicited craving are a top research priority. Based on preclinical literature, GABA-B agonists are possible candidates. Baclofen is a benign prototypical GABA-B agonist that may be effective in treating smokers who are SC-vulnerable. Thus, we examined the effects of baclofen on resting-state functional activity, SC reactivity, and SC-elicited craving in treatment-seekers. We hypothesized that baclofen would increase activation in cognitive control regions at rest, and that this increase would predict a decrease in reward response to SCs, leading to a reduction in SC-elicited craving. METHODS: Pre-randomization, sated smokers participated in a perfusion fMRI session that included a resting-state scan and a SC reactivity task (Time 1). Smokers were then randomized to receive either baclofen (BAC, n=21, 80 mg/day) or placebo (PBO, n=22) for 3 weeks, followed by an on-medication scan session (Time 2). Quit dates were scheduled for after Time 2 to prevent interference in brain response from smoking cessation/withdrawal. RESULTS: At Time 2 and compared to PBO, BAC subjects demonstrated a greater increase in the right dorsolateral prefrontal cortex at rest (dlPFC; $t(40)=2.02$, $p=0.03$). This increase in dlPFC activity at rest predicted a decrease in the left ventral anterior insula response to SCs ($Z=4.57$). Finally, SC-elicited craving was absent in BAC- but not PBO-treated subjects ($t(26)=2.24$, $p=0.02$). CONCLUSION: The dlPFC is a cognitive control region, and the ventral anterior insula is a key region involved in craving. Results indicate that baclofen may (1) increase baseline activation in cognitive control regions at rest, and (2) decrease activation in a region known to be involved in SC-induced craving, contributing to better control over SC-elicited craving. Results suggest that GABA-B agonists, such as baclofen, may be viable treatment options for SC-vulnerable individuals.

Willing to present orally: Yes

Financial Support: NIDA

Name of Sponsor (If you are NOT) a CPDD Member: Reagan Wetherill

Email Address of Sponsor : rweth@pennmedicine.upenn.edu

Prefix: Dr.

First Name: Ariel

Last Name: Ketcherside

Degrees: MA MD Ph.D etc:: PhD

Email: ariel.ketcherside@gmail.com

CC Email: arielket@pennmedicine.upenn.edu

Company Affiliation: University of Pennsylvania

Mailing Address: 3535 Market Street Suite 500

City: Philadelphia

State: PA

Zip/Postal: 19104

Country: United States

Phone: 215-746-1895

Membership Year: 2018

Sponsor: Dr. Reagan Wetherill, PhD

Travel Award: 2018

Research Interests: Etiology,Treatment

ID: 493
Considerations in opioid comparator selection in epidemiology studies evaluating the effectiveness of abuse-deterrent opioids

Nelson Sessler, Purdue Pharma, nancy.crudele@pharma.com

Abstract Category: Theoretical/Commentary

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: Aim: Several extended-release opioids with abuse-deterrent formulations are approved by the FDA based on formulation and human studies (Categories 1-3, conducted to support approval). However, to fully map the benefit, and therefore to achieve full FDA labeling language as abuse deterrent, post-market epidemiological studies are required by the Agency (Category 4). Since real-world data on opioid abuse can be impacted by several factors other than just the abuse-deterrent reformulation, comparator drugs without abuse deterrent formulations are used as reference. However, given the individual characteristics of opioids, unique prescription opioid product formulations, and large numbers and types of ongoing interventions intended to reduce opioid abuse, identifying meaningful comparators may be difficult. Herein we outline an approach to evaluation of opioid comparators that is structured around key domains of information. Firstly, we identified four general groups of opioid product data: availability, pharmacokinetics, pharmacodynamics, and miscellaneous. We then subdivided each of these into domains that were pertinent to opioid abuse-related metrics. Availability domains include regulation (national, state, etc.), dispensing (settings, prescriptions, etc.) and diversion (settings, types, etc.). Pharmacokinetic domains include absorption, distribution, metabolism, and excretion, as well as characteristics of formulations (Cmax, Tmax, AUC, food/alcohol dumping, etc.). Pharmacodynamic domains include: preclinical (receptor binding, in vivo potency, metabolites), clinical (drug liking, aversion) and adverse events. Miscellaneous domains include illicit market (heroin, etc.) and misclassification (visual, counterfeits, etc.). The importance of this information is illustrated through a case study of the abuse-deterrent formulation of extended-release oxycodone (OxyContin®). Conclusion: Subgrouping comparator product characteristics into distinct domains of information may be a valuable way to contrast and compare opioid products better enabling researchers to assess the usefulness of an individual comparator used in post-marketing studies.

Willing to present orally: Yes

Financial Support: This research was funded by Purdue Pharma L.P.

Name of Sponsor (If you are NOT) a CPDD Member: Richard C. Dart, MD, PhD

Email Address of Sponsor : Richard.Dart@rmpdc.org

Prefix: Dr.

First Name: Nelson

Middle Initial: E.

Last Name: Sessler

Degrees: MA MD Ph.D etc:: PharmD

Email: nancy.crudele@pharma.com

CC Email: nelson.sessler@pharma.com

Company Affiliation: Purdue Pharma

Mailing Address: One stamford forum

City: stamford

State: CT

Zip/Postal: 06901

Country: United States

Phone: 8887267535

ID: 494
Durable viral suppression among people with HIV and problem substance use in the era of universal antiretroviral treatment

Margaret Paschen-Wolff, New York State Psychiatric Institute at Columbia University Irving Medical Center, margaret.paschen-wolff@nyspi.columbia.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: AIDS/Immune

Other Topic: Policy

Abstract: AIM: The 2011 New York City (NYC) universal antiretroviral treatment (ART) policy recommended immediate ART initiation for all people with HIV (PWH). The current study aimed to evaluate the policy goal of increasing durable viral suppression (DVS) rates from 52% to 80% by measuring DVS 12-months post-enrollment among PWH with problem substance use (PSU). We hypothesized that the proportion achieving DVS would: (1) differ from 52% among each yearly recruitment cohort and location subgroup and (2) increase across yearly cohorts. METHODS: Self-report baseline data were from 99 PWH-PSU (recruited in 2014, n=13; 2015, n=29; 2016, n=27; 2017, n=30; public sexual health clinic [SHC] n=36; hospital detoxification unit n=63). DVS (NYC HIV Surveillance Registry) was defined as two consecutive viral load tests of ≤ 200 copies/mL, minimum 90 days apart. Descriptive analyses examined participant characteristics. One-sample proportion t-tests measured differences in DVS. RESULTS: Participants were primarily Black/African-American (51.52%), Latinx (35.35%), cisgender men (85.86%), stably housed (58.59%), without full-time employment (73.47%), mean age=43.63 years; mean education years=13.11. SHC vs. detox participants were more educated (M=14.89 vs. 12.10 years), stably housed (63.89% vs. 55.56%), and employed full-time (63.89% vs. 4.84%). More detox vs. SHC participants met DSM-5 criteria for alcohol (58.73% vs. 52.78%), opioid (39.68% vs. 2.78%), and stimulant (74.60% vs. 36.11%) use disorders. DVS (overall 47.47%) did not significantly differ from 52% or increase across yearly cohorts (2014: 69.23%, p = .214; 2015: 48.28%, p = .688; 2016: 48.15%, p = .689; 2017: 36.67%, p = .093). SHC DVS was significant higher (71.43%, p = .021), and detox DVS significantly lower (34.38%, p = .005) than 52%. CONCLUSION: DVS declined across yearly cohorts, suggesting no overall improvement post-universal ART. The syndemic of PSU and low socio-economic status (SES) may explain lower DVS rates among detox participants. Co-located addiction and HIV services and funding for supportive housing could improve DVS among low-SES PWH-PSU.

Willing to present orally: Yes

Financial Support: R01 DA035707 (Des Jarlais and Campbell) R01 DA003574 (Des Jarlais)

Name of Sponsor (If you are NOT) a CPDD Member: Aimee Campbell

Email Address of Sponsor : anc2002@cumc.columbia.edu

Prefix: Dr.

First Name: Margaret

Last Name: Paschen-Wolff

Degrees: MA MD Ph.D etc:: DrPH, MSW

Email: margaret.paschen-wolff@nyspi.columbia.edu

Company Affiliation: New York State Psychiatric Institute at Columbia University Irving Medical Center

Mailing Address: 1051 Riverside Dr.

Address 2: Box 20

City: New York

State: NY

Zip/Postal: 10032

Country: United States

Phone: 646-774-6188

ID: 495
Factors associated with completion of substance use disorder treatment among adolescents in the justice system

Dieu Tran, Stomp Lan, dieutran@ufl.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Adolescent

Abstract: Aim: The rate of overdose deaths among adolescents is increasing. Recent evidence suggests that substance use disorders (SUD) treatment programs implemented in correctional settings can decrease statewide rates of overdose fatalities. Treatment in the juvenile justice system may likewise decrease the overall adolescent overdose fatalities. However, only a fraction of individuals in the justice system with SUD complete a SUD treatment program and the factors associated with completion of SUD treatment among adolescents in the criminal justice system have not been thoroughly investigated. Methods: Using cross-sectional data on 25,587 adolescents from the Florida Department of Juvenile Justice (FLDJJ) who met the criteria for SUD treatment, the current study investigated the factors associated with completion of substance use disorder treatment. Sociodemographic, mental health and other variables were examined. Results: Blacks were 15% less likely to complete treatment as Whites. Compared to marijuana-only users, alcohol-only users were 2.75 times as likely to complete treatment. Those who participated in multiple SUD treatment programs were 40% more likely to complete a program as those who participated in one program. Court ordered substance education courses were associated with a 40% increased chance of treatment completion compared to voluntary participation in substance education courses and a 117% increased likelihood of treatment completion compared to never participating in SUD education courses. High school graduates were twice as likely to complete treatment as those who were matriculating, expelled or dropped out. Strong support networks were associated with a 36% increased chance of completion, compared no support. Low optimism was associated with a 30% decreased chance of completion compared to high optimism. Conclusions: The factors associated with completion can be translated into programs and practices. Court-assigned programs that provide emotional support and foster optimism may yield higher rates of completion.

Willing to present orally: Yes

Financial Support: Financial Support: This research was supported by the University of Florida Substance Abuse Training Center in Public Health from the National Institute of Drug Abuse of the National Institutes of Health under award number T32DA035167 (PI: Dr. Linda B. Cottler) and the PhD Preparatory Project at the University of Florida (PI: Dr. Henry Frierson). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health or the Florida Department of Juvenile Justice.

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Linda B. Cottler

Email Address of Sponsor : lbcottler@ufl.edu

Prefix: Mrs.

First Name: Dieu

Last Name: Tran

Email: dieutran@ufl.edu

CC Email: micahjohnson3000@ufl.edu

Company Affiliation: Stomp Lan

Mailing Address: 2004 mowry rd

City: Gainesville

State: fl

Zip/Postal: 32609

Country: United States

Phone: 3522739307

ID: 496
Caffeine enhances sustained attention among adolescents

Robert Cooper, University at Buffalo, rkcooper@buffalo.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Adolescent

Abstract: AIM: The impact of caffeine on sustained attention is equivocal. Whereas past work has typically examined overall performance in brief tasks, sustained attention is best assessed as change over longer periods of time. Additionally, all prior work has focused on adults. We addressed these limitations by examining the acute effects of caffeine (vs placebo) on a 33-minute continuous performance task (CPT) among adolescents. We predicted a gradual reduction in target detection over time (i.e., a vigilance decrement), which would be attenuated by caffeine. We also evaluated whether a high dose (3mg/kg) of caffeine was more effective than a low dose (1 mg/kg). METHODS: 31 adolescents (age 12-17, 15 female; median caffeine use = 28 mg/day) completed 3 visits. Each visit included the Identical Pairs CPT beginning 25 minutes after consumption of a sports drink containing placebo, 1 mg/kg, or 3 mg/kg caffeine (order counterbalanced). Participants responded with a button press for low probability targets. Percent hits across the 12 100-trial blocks were the primary outcome (false alarms were generally infrequent). RESULTS: Caffeine attenuated the linear decline in percent hits across trial blocks when compared to placebo (Caffeine vs. Placebo x Block linear, p = .01), with significant differences in Blocks 9-12 (ps

Willing to present orally: Yes

Financial Support: This work was supported by institutional funds to Larry Hawk and departmental travel funds to Robert Cooper.

Name of Sponsor (If you are NOT) a CPDD Member: Stephen T. Tiffany

Email Address of Sponsor : stiffany@buffalo.edu

Prefix: Mr.

First Name: Robert

Middle Initial: K

Last Name: Cooper

Degrees: MA MD Ph.D etc:: BA

Email: rkcooper@buffalo.edu

Company Affiliation: University at Buffalo

Mailing Address: 737 Ashland Ave

City: Buffalo

State: NY

Zip/Postal: 14222

Country: United States

Phone: 5857552778

ID: 497
Psychosocial correlates and treatment outcomes of methadone patients with a history of opioid overdose

Jamey Lister, Wayne State University, jlister@med.wayne.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM: The purpose of the present analysis was to 1) examine rates of overdose history in a sample of patients presenting to methadone treatment, 2) examine demographic characteristics, opioid use variables (e.g., intravenous opioid use, prescription opioid misuse, age of first opioid use) and clinically-relevant characteristics (depressive symptoms, stress, trauma, and interpersonal violence) as potential correlates of overdose history, and 3) to compare treatment outcomes among individuals who indicated an overdose history. METHODS: Participants (N = 97) completed survey questions about their opioid use and psychosocial characteristics at the beginning of treatment. Chi-square and t-tests were used to 1) examine rates of emotional symptoms, childhood and community trauma, and opioid use variables among individuals with a history of overdose and 2) to examine whether overdose history was associated with at least one opioid-positive urine drug screen at 3 time points: before 1 month, between 1 and 3 months, between 3 and 6 months. RESULTS: Half of the sample (49.5%) had experienced overdose. There were no demographic differences in people who experienced an overdose and those who did not. Individuals who had overdosed were more likely to report intravenous opioid use ($\chi2 = 7.20$, $p = .007$), reported a greater degree of community violence ($t(95)=2.97$, $p = .004$), and were marginally more likely to screen positive for clinically significant stress ($\chi2 = 3.79$, $p = .052$). Paradoxically, those who had experienced overdose were less likely to have an opioid-positive screen between 1 and 3 months ($\chi2 = 4.47$, $p = .034$), and between 3 and 6 months ($\chi2 = 5.40$, $p = .02$). CONCLUSION: Opioid overdose can be a frightening and stigmatizing experience. However, while individuals entering methadone treatment with a history of overdose are more likely to be experiencing high levels of stress and community violence, these findings indicate they can be highly successful in treatment.

Willing to present orally: No

Financial Support: Wayne State University Office of the Provost, Helene Lycaki/Joe Young, Sr. Funds (State of Michigan), and Detroit Wayne Mental Health Authority.

Name of Sponsor (If you are NOT) a CPDD Member: Dr. David Ledgerwood

Email Address of Sponsor : dledgerw@med.wayne.edu

Prefix: Dr.

First Name: Jamey

Middle Initial: J.

Last Name: Lister

Degrees: MA MD Ph.D etc:: Ph.D

Email: jlister@med.wayne.edu

Company Affiliation: Wayne State University

Mailing Address: 5447 Woodward Ave

City: Detroit

State: MI

Zip/Postal: 48202

Country: United States

Phone: 313-577-4408

ID: 498
MRS metabolic profiling of marijuana users during the initial phase of abstinence

Scott Lukas, McLean Hospital, Harvard Medical School, slukas@mclean.harvard.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Imaging

Abstract: Aim: The present ongoing study was conducted to determine if the profile of changes in brain chemistry using magnetic resonance spectroscopy (MRS) correlated with the behavioral and neuropsychological metrics of acute marijuana (MJ) withdrawal. Methods: Brain GABA and glutamate (glu) were measured at 3T (Siemens) along with clinical state, craving, withdrawal, and cognitive performance during 21 days of verified MJ abstinence. Verification was performed via daily quantitative urine tests. Twenty-one (7 female/14 male) paid recreational, heavy MJ users who met DSM-5 criteria for cannabis use disorder were enrolled. Sixteen (ages 21-35; 5 female/11 male) who reported an average of 29 uses/month completed the 3-week study. A battery of mood and behavioral measures including sleep and cognitive function were administered on a weekly basis. Results: Dorsal anterior cingulated cortex (dACC) and striatal GABA and glu were measured at baseline and 1 and 3 weeks of abstinence. dACC GABA and glu in MJ users were modestly decreased (-7%) at week 1 and returned towards baseline levels by week 3. Striatal GABA and glu levels were modestly increased at week 1 and returned to baseline by week 3. Group averages of cannabis withdrawal and craving fluctuated at week 1 and remained near baseline levels at week 3, while subscales of the mood measures trended lower. The profile of dACC GABA changes from baseline to week 1 revealed the presence of two unique subgroups ($p=0.02$) in which GABA was increased ($n=6$) or decreased ($n=10$) during withdrawal. Conclusion: Although the two subgroups were demographically similar, they expressed some differences in clinical state and cognitive performance (for example, a measure of verbal memory at week 3 was significantly different ($p=0.02$)) suggesting that changes in dACC GABA levels may be a potential biomarker for MJ withdrawal.

Willing to present orally: Yes

Financial Support: NIDA Grant R21 DA041574

Prefix: Dr.

First Name: Scott

Last Name: Lukas

Degrees: MA MD Ph.D etc:: PhD

Email: slukas@mclean.harvard.edu

CC Email: scottelukas@gmail.com

Company Affiliation: McLean Hospital, Harvard Medical School

Mailing Address: McLean Imaging Center, Mail Stop 319

Address 2: 115 Mill St

City: Belmont

State: MA

Zip/Postal: 02478

Country: United States

Phone: 617 855-2767

ID: 499
BDNF relations with and BDNF × stress interactions on symptoms of emotional disorders and associated features

Casey Guillot, University of North Texas, casey.guillot@unt.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Genetics

Abstract: Aims: Emotional disorders, such as major depression, anxiety disorders, and borderline personality disorder (BPD), are frequently comorbid and associated with irritability, deliberate self-harm (DSH), cognitive deficits, and alcohol problems. Given their frequent co-occurrence, it is possible that vulnerability to developing these conditions is partially due to shared genetics, which has been evidenced to some extent by twin studies. Additionally, a number of blood, brain, and molecular genetic studies have suggested that brain-derived neurotrophic factor (BDNF), encoded by the BDNF gene and involved in axonal growth and synaptic plasticity, may contribute to the development of these conditions. Furthermore, some research has suggested that the interaction between the BDNF gene and life stress may contribute to the risk of developing emotional disorder symptoms more than BDNF considered in isolation. Thus, we investigated relations of the BDNF rs10835210 polymorphism and its interaction with life stress on symptoms of emotional disorders and associated features. Methods: In this cross-sectional nonclinical sample, 132 non-Hispanic Whites (43.9% female, M age = 26) were genotyped, administered behavioral tasks assessing executive functioning (EF) and DSH behavior, and completed self-report measures of depression, anxiety, BPD symptoms, irritability, DSH history, alcohol problems, and a proxy for life stress. Results: Moderated regression analyses revealed that the BDNF AA genotype had significant main effects on anxiety symptoms, irritability, DSH history, alcohol problems, and EF (βs = .16-.25, ps < .05). In addition, moderated regression analyses revealed significant BDNF × stress interactions on DSH history, EF, and depression, anxiety, and BPD symptoms (βs = .16-.34, ps < .05) as well as a marginally significant BDNF × stress interaction on DSH behavior (β = .17, p = .056). Conclusions: Current findings suggest that variations in BDNF and/or their interactions with stress may contribute to the risk of developing symptoms of emotional disorders and associated features, including alcohol problems.

Willing to present orally: No

Financial Support: NIAAA Grants P60-AA007611 and R21-AA14025

Prefix: Dr.

First Name: Casey

Middle Initial: R.

Last Name: Guillot

Degrees: MA MD Ph.D etc:: PhD

Email: casey.guillot@unt.edu

Company Affiliation: University of North Texas

Contact Title: Assistant Professor

Mailing Address: Department of Psychology

Address 2: 1155 Union Circle #311280

City: Denton

State: TX

Zip/Postal: 76203-5017

Country: United States

Phone: 940-369-8426

Membership Year: 2014

Sponsor: Dr. Adam Leventhal, Ph.D. and Jennifer Tidey

Travel Award: 2017

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 500
Changes in abuse of OxyContin® following its abuse-deterrent reformulation as measured by the RADARS® System Poison Center Program

Stacy Baldridge, Purdue Pharma L.P., stacy.baldridge@pharma.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: Aim: To assess changes in reported intentional abuse, overall and by specific routes, associated with OxyContin® (extended-release (ER) oxycodone HCl) from before to after reformulation of OxyContin® with abuse deterrent properties (ADP), as compared to other opioids. Methods: Cases reported to the RADARS® System poison centers Program from 2008-2015 were assessed. Multiple measures of abuse were evaluated using Poisson regression models, including intentional abuse count relative to: US Census population (Model 1), dosage units dispensed adjusted for all pharmaceutical exposures (Model 2a), and dosage units dispensed and all pharmaceutical exposures (Model 3a). Comparator opioids (IR oxycodone, ER morphine, IR hydrocodone combinations, other Schedule II opioids [excluding OxyContin®, methadone]) were evaluated for frame of reference to distinguish the effect of reformulation versus other interventions (e.g. policies) that might have affected opioid use. Results: Following OxyContin® reformulation, calls to poison centers involving intentional abuse of OxyContin declined, with reductions in abuse measures ranging from 55.2 (Model 1) to 17.5% (Model 3a). Declines in OxyContin abuse were generally more pronounced than comparators, but statistical significance varied. Notable reductions in intentional abuse by insufflation (model range: 42.6% to 66.4%), injecting (41.2% to 58.9%), and all nonoral abuse (43.7% to 62.6) were observed. Magnitude of decline for these routes was more pronounced than for comparators, except for ER morphine in Model 2. IR-oxycodone combinations, general oxycodone, and all oxycodone excluding OxyContin demonstrated a lesspronounced decline or an increase in intentional abuse compared to OxyContin. Conclusions: OxyContin® reformulation resulted in a meaningful and sustained reduction in intentional abuse reported by poison centers to the RADARS® System. The magnitude of reduction varied by abuse measure and was statistically differentiated from comparators in these models. The reduction in non-oral abuse was more pronounced than for IR hydrocodone combinations and other Schedule II opioids.

Willing to present orally: Yes

Financial Support: This research was funded by Purdue Pharma L.P.

Name of Sponsor (If you are NOT) a CPDD Member: Richard Dart

Email Address of Sponsor : Richard.Dart@rmpdc.org

Prefix: Dr.

First Name: Stacy

Last Name: Baldridge

Degrees: MA MD Ph.D etc:: Ph.D.

Email: stacy.baldridge@pharma.com

Company Affiliation: Purdue Pharma L.P.

Mailing Address: 5326 Ringneck Glen Drive

City: Spring

State: Texas

Zip/Postal: 77388

Country: United States

Phone: 8324580341

ID: 501
Self-reported peer buprenorphine/naloxone (Suboxone®) administration for opioid overdose reversal: a potential avenue for peer-led overdose prevention efforts in medication-assisted treatment settings

Maria Luisa Mittal, University of California San Diego, Division of Global Public Health, mlmittal@ucsd.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Prevention

Abstract: Aim: Sublingual and intravenous buprenorphine/naloxone administration have been previously described in community settings as a means to reverse an opioid overdose. We sought to explore this phenomenon among persons who had recently witnessed an overdose in San Diego, CA. Methods: The Sheriff Naloxone Study (NIDA R01DA040648) is a mixed-methods study seeking, in part, to understand decision-making processes that inform calling 911 during a drug overdose. We undertook in-depth qualitative interviews with persons who use opioids who had recently (i.e., past three months) witnessed an overdose in San Diego, CA. Purposive sampling ensured a range of experiences were included, according to sociodemographic backgrounds and drug use behaviors. For the present study, narrative analysis was used to explore overdose events where buprenorphine/naloxone was used to reverse an opioid overdose. Results: Forty-five participants who recently witnessed an opioid overdose were interviewed. In one example, a participant used buprenorphine/naloxone intravenously, which was provided by a person on medication-assisted treatment (MAT), to reverse an opioid overdose. Another participant called 911 and "contemplated giving him the Suboxone [strips], because […] buprenorphine bonds to your receptors stronger than heroin does," but instead waited for rescue services to arrive to see if naloxone could prevent "too much" withdrawal for the person overdosing. Some participants believed that if you use buprenorphine/naloxone you "still have to call [911] in that case, but it's so slow, but that's a good way to start getting them to save them." Others felt "they should offer Narcan" at MAT clinics. Conclusion: These findings suggest that persons with access to MAT have street-level knowledge of buprenorphine/naloxone pharmacodynamics and are willing to intervene in an opioid overdose event. Furnishing the correct overdose reversal tools (i.e., naloxone) in combination with overdose prevention education in MAT settings may help curb the overdose epidemic in hard-to-reach U.S. populations.

Willing to present orally: Yes

Financial Support: NIDA grants R01DA040648 and 3R01DA040648-02S1

Prefix: Dr.

First Name: Maria Luisa

Last Name: Mittal

Degrees: MA MD Ph.D etc:: MD

Email: mlmittal@ucsd.edu

CC Email: mlmittal@ucsd.edu

Company Affiliation: University of California San Diego, Division of Global Public Health

Mailing Address: 9500 Gilman Drive

Address 2: MC 0507

City: La Jolla

State: CA

Zip/Postal: 92093-0507

Country: United States

Phone: 858-822-4154

ID: 502
Marijuana-related beliefs in adolescents: Moving beyond perceived riskiness of marijuana use

Nicholas Chadi, Boston Children's Hospital, nicholas.chadi@childrens.harvard.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Adolescent

Abstract: Aim: Perceived riskiness of marijuana has been trending downward in the past two decades in the context of increasing legality and availability. While low perceived riskiness has been associated with marijuana use, evidence is lacking on broader beliefs about marijuana's safety and potential benefits that may guide clinical interventions. We aimed to examine associations between specific marijuana-related beliefs and marijuana use among adolescents, testing the hypothesis that positive marijuana-related beliefs in addition to lower perceived riskiness of marijuana use would be associated with use. Methods: We analyzed cross-sectional survey data collected via tablet computer from n=502 assented/consented adolescents aged 14-18 years in primary care in Boston, Massachusetts. Marijuana use was assessed with a brief validated screening tool. Participants rated their level of agreement with each of five statements about marijuana's riskiness and health properties using a four-point Likert scale. We used multivariable logistic regressions to determine the association between past-year marijuana use and marijuana-related beliefs adjusting for socio-demographic factors, mood/anxiety symptoms and use of other substances. Results: Sixty-six percent of participants were female and the majority (76%) was non-White. Twenty-nine percent of participants endorsed past-year marijuana use. Participants reporting past-year marijuana use were more likely to agree/strongly agree (vs. disagree/strongly disagree) that marijuana is "safe because it is natural" (AOR 6.61, 95% CI:3.59-12.19). Participants with no past-year marijuana use were more likely than those who had used to agree/strongly agree (vs. disagree/strongly disagree) that marijuana can be addictive (AOR 3.39 95% CI:1.80-6.40) and to assign great/moderate (versus no/slight) risk to using marijuana at least once a week (AOR 3.72, 95% CI:2.10-6.59). Conclusion: Specific marijuana-related beliefs are associated with marijuana use by adolescents. Better understanding of these beliefs could guide clinical interventions addressing low or decreasing perceived riskiness of marijuana use, by informing clinical conversations that reinforce health-protecting behaviors among youth.

Willing to present orally: Yes

Financial Support: This work was supported by the Conrad N. Hilton Foundation (grant number: 20140273).

Prefix: Dr.

First Name: Nicholas

Last Name: Chadi

Degrees: MA MD Ph.D etc:: MD

Email: nicholas.chadi@childrens.harvard.edu

CC Email: nicholas.chadi@hotmail.com

Company Affiliation: Boston Children's Hospital

Mailing Address: 1482 Tremont St

Address 2: Apt W310

City: Boston

State: MA

Zip/Postal: 02120

Country: United States

Phone: 5146528410

Membership Year: 2018

Sponsor: Dr. Gail D'Onofrio, MD MS

Research Interests: Prevention,Psychiatric/Medical Morbidity

ID: 503
Analysis of the discriminant validity and psychometric performance of the Misuse, Abuse and Diversion Drug Event Reporting System (MADDERS) in phase II and III clinical trials of drugs with suspected abuse potential

Harrison Elder, Analgesic Solutions, helder@analgesicsolutions.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Prescription Opioids and Cannabinoids

Topic: Other

Other Topic: Assessing abuse potential in clinical trials

Abstract: Aim: The MADDERS® system was developed to meet FDA recommendations for assessing abuse potential in safety and efficacy clinical trials of CNS-active drugs. The system relies on identification of potentially abuse-related events prospectively by study staff, collection of event-related information from subjects in near real time via interview-based questionnaires, and adjudication and classification of events using standardized, consensus terminology. The purpose of this analysis is to evaluate the performance of the system to date, including an assessment of its discriminant validity for assessing abuse-related events in clinical trials. Methods: Data from Phase 3 trials involving cannabinoid and opioid formulations (CBD, THC/CBD, and an opioid) were analyzed for the incidence of MADDERS events, types of events and relative rates of abuse-related final classifications made by adjudicators. Psychometric performance was assessed via inter-rater reliability (IRR) between site and adjudicator classifications by calculating percentage of agreement and Cohen's kappa statistics. Data were pooled for all trials of each respective formulation to create separate treatment populations for comparison. Results: The MADDERS system identified relatively few total subjects with potentially abuse-related events in the pooled treatment populations. The relative rates of events classified as Abuse or Misuse, were 0 (0%), 5 (9.6%), and 20 (25.3%) in pooled studies of CBD, THC/CBD and an opioid, respectively. The IRR between site and MAC classifications showed fair to moderate but statistically significant ($p < 0 .05$) agreement and indicated that capturing qualitative information from subjects factored into adjudicators' classifications and were important sources of event-related information. Conclusion: The MADDERS system was selective and specific in identifying potentially abuse-related events across studies and can discriminate between compounds with varying levels of expected abuse potential. The MADDERS system possesses good performance and psychometric qualities, and is a more reliable and accurate method for assessing abuse potential in clinical trials than customary retrospective approaches.

Willing to present orally: Yes

Financial Support: All authors are employees of Analgesic Solutions LLC

Name of Sponsor (If you are NOT) a CPDD Member: Ryan Lanier

Email Address of Sponsor : rlanier@analgesicsolutions.com

Prefix: Mr.

First Name: Harrison

Last Name: Elder

Degrees: MA MD Ph.D etc:: BA

Email: helder@analgesicsolutions.com

CC Email: elderh12@gmail.com

Company Affiliation: Analgesic Solutions

Mailing Address: 590 Cambridge St Apt. 1

City: Allston

State: MA

Zip/Postal: 02134

Country: United States

Phone: 7815721339

ID: 504
Felony recidivism and past-30 day opioid misuse among adolescents

Diane Peitit-Bois, University of Florida: STOMP Lab, dianepetitbois@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: Aim. Justice-Involved Children (JIC) have a higher prevalence of trauma exposure, psychiatric disorders, and substance abuse than other youth not in the system. Substance abusers with a history of felony recidivism are more prone to incarceration and addiction in adulthood. Despite compelling evidence that criminal justice populations suffer harsher consequences as a result of opioid misuse (OM), the research on OM among JIC is insufficient, and no studies have examined the link between felony recidivism and OM among JIC. Methods. Leveraging statewide data on 79,960 JIC from the Florida Department of Juvenile Justice (FLDJJ), the current study investigated the association between the number of adjudicated felonies and past-30 Day OM. Both variables were derived from official data, rather than self-reported data. Bivariate analyses and multivariate logistic regression analyses were employed. Results. Nearly 3% of the total sample met criteria for past-30 day OM. More than 83% of the total sample had one or more adjudicated felonies and 25% had three or more. Among those who met criteria for past-30 day OM, 87% had one or more felonies and 27% had three or more. Compare to JIC with no felonies, those with one felony had a 50% increased chance of past-30 day OM, and those with three or more adjudicated felonies were more than twice as likely. Conclusion. Post-felony adjudicated drug abuse rehabilitation programs must be implemented for JIC. Further investigation is needed to understand the implications of these findings for disadvantaged communities that have less access to substance abuse treatment and are disproportionately impacted by inequity in the criminal justice system.

Willing to present orally: Yes

Financial Support: This research was supported by the University of Florida Substance Abuse Training Center in Public Health from the National Institute of Drug Abuse of the National Institutes of Health under award number T32DA035167 (PI: Dr. Linda B. Cottler) and the PhD Preparatory Project at the University of Florida (PI: Dr. Henry Frierson). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health or the Florida Department of Juvenile Justice.

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Linda B. Cottler

Email Address of Sponsor : lbcottler@ufl.edu

Prefix: Mrs.

First Name: Diane

Last Name: Peitit-Bois

Email: dianepetitbois@gmail.com

CC Email: micahjohnson3000@gmail.com

Company Affiliation: University of Florida: STOMP Lab

Mailing Address: 2004 mowry rd

City: Gainesville

State: fl

Zip/Postal: 326010

Country: United States

Phone: 3522739307

ID: 505
Bromodomain-containing protein 4 (BRD4) as an emerging therapeutic target in opioid use disorder

Victoria Brehm, University of Texas Medical Branch, vdbrehm@utmb.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Neurobiology

Abstract: AIM: Bromodomain (BRD) and extraterminal domain containing proteins epigenetically regulate neuronal and synaptic genes. Bromodomain-containing protein 4 (BRD4) mediates epigenetic regulation of histone acetylation as a link between neuronal activation and the transcriptional responses that occur during neuroplasticity, a facet of neurobiology important in opioid use disorder (OUD). A long-lasting suppression of heroin self-administration (SA) was observed following microinfusion of a pan-BRD inhibitor into the nucleus accumbens (NAc; Egervari et al., Biol Psychiatry 81:585, 2017), a key node in limbic-corticostriatal neurocircuitry involved in OUD. We hypothesized that systemic administration of a novel, potent, and specific BRD4 inhibitor, ZL0987, would suppress oxycodone SA. Furthermore, we assessed BRD4 expression in the NAc and prefrontal cortex (PFC) of male rats five minutes following termination of the last oxycodone vs. saline SA session. METHODS: Male Sprague-Dawley rats (n=7) trained to stability on intravenous oxycodone SA (0.1 mg/kg/inf) were pretreated with ZL0987 (0, 3, or 10 mg/kg; 15 min) prior to the test session. Additionally, rats (n= 9-11) trained on saline or oxycodone SA were euthanized after the last SA session; NAc and PFC were extracted and analyzed for BRD4 protein expression in nuclear, cytoplasmic, and synaptosomal compartments. RESULTS: ZL0987 (10 mg/kg) suppressed oxycodone self-administration (p

Willing to present orally: Yes

Financial Support: Supported by NIDA P50 DA033935 and the UTMB Center for Addiction Research.

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Kathryn A. Cunningham

Email Address of Sponsor : kcunning@UTMB.EDU

Prefix: Ms.

First Name: Victoria

Last Name: Brehm

Email: vdbrehm@utmb.edu

Company Affiliation: University of Texas Medical Branch

Mailing Address: 301 University Blvd

City: Galveston

State: Texas

Zip/Postal: 77555

Country: United States

Phone: 9365230716

ID: 506
Assessing effect of nalmefene on daily 4-hr cocaine self-administration in male mice

Michelle Morochnik, The Rockefeller University, mmorochnik@rockefeller.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Stimulants

Topic: Treatment

Abstract: AIM Preclinical and clinical evidence has shown that the mu opioid receptor antagonist/kappa opioid receptor (KOPr) partial agonist naltrexone (NTX) reduces cocaine use and craving. NTX, along with its structural analog nalmefene (NMF) have been approved (FDA and European Medical Agency, respectively) for the treatment of alcohol use disorder. Previous research has shown that both NTX and NMF reduce the rewarding effects of cocaine (measured by conditioned place preference). Given the greater KOPr potency, improved bioavailability, and no dose-dependent liver toxicity, NMF is a promising treatment for cocaine use disorder as compared to NTX. Here we examine the effect of NMF pretreatment on chronic daily 4-hr cocaine intravenous self-administration (IVSA) in male mice. METHODS Following recovery from jugular catheterization, separate groups of male C57BL/6 mice had daily 4-hr cocaine self-administration sessions with a single unit dose of cocaine (0.25 or 0.5 mg/kg/inf; FR1) across 14 days. During the second week of daily self-administration, mice received a pretreatment of either NMF (1 or 10 mg/kg) or saline 30 minutes prior to each IVSA session. RESULTS Mice self-administered 21 and 32 mg/kg cocaine during the first IVSA session and 28 and 35 mg/kg cocaine on Day 7 (0.25 and 0.5 dose groups, respectively). A transient reduction or no effect in cocaine self-administration was observed in mice pretreated with NMF (10 or 1 mg/kg, respectively) for high unit dose cocaine self-administration. A persistent reduction of approximately 20% was observed for NMF pretreatment (1 mg/kg) in low unit dose cocaine self-administration. CONCLUSION At a lower unit dose of cocaine, NMF pretreatment appears to reduce the tolerance induced escalation of cocaine intake. Further experiments are needed to clarify the mechanism of action for this reduction, with respect to both opioid receptor target of NMF and interaction with cocaine-induced dopamine release.

Willing to present orally: Yes

Financial Support: Gary R. Helman Postdoctoral Fellowship (KAW) and Dr. Miriam and Sheldon Adelson Research Foundation (MJK).

Name of Sponsor (If you are NOT) a CPDD Member: Mary Jeanne Kreek

Email Address of Sponsor : kreek@rockefeller.edu

Prefix: Ms.

First Name: Michelle

Last Name: Morochnik

Degrees: MA MD Ph.D etc:: BA

Email: mmorochnik@rockefeller.edu

Company Affiliation: The Rockefeller University

Mailing Address: 1230 York Ave

Address 2: Box 172

City: new york

State: new york

Zip/Postal: 10065

Country: United States

Phone: 9294379567

ID: 507
Incidence of extra-medical OxyContin use after reformulation among youth, 2004-2017

Christopher Thompson, Theo Pediatric Health, staff@peds.clinic

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: Aim: Prior to 2011, OxyContin (extended-release oxycodone) could easily be crushed into a powder which individuals would snort or inject for a potent 'high'. To combat misuse, Purdue Pharma, the manufacturer of OxyContin released an 'abuse deterrent' formulation. Yet, the effect on newly incident use remains unclear. Therefore, with 14 samples from an annually-replicated, nationwide survey, we sought to estimate the incidence of EMOU among 13-to-21-year-olds before and after the reformulation. Methods: The study population includes non-institutionalized US residents, sampled by The National Survey on Drug Use and Health (NSDUH). Since 2004, NSDUH assessed EMOU with audio computer-assisted self-interviews. We analyzed each NSDUH yearly replicate from 2004-2017 for the year-specific probability of initiating EMOU within 12 months of the survey. Due to a wording change in 2015-2017 assessments, we included a sensitivity analysis with this data included. Treating each year's sample as an independent replication, we provide meta-analytic summary estimates for 2004-2010 and 2011-2014 (pre- & post-reformulation) and then assessed the results after including 2015-2017 data. Results: From 2004-2017, individual survey participation ranged from 70-77%, yielding N=294,406 adolescents aged 13-to-21-years. Pooling all ages (13-to-21-years), the meta-analytic summary estimate for EMOU initiates is 37 adolescents per 10,000 (95% CI: 34, 41) for 2004-to-2010 compared 23 per 10,000 (95% CI: 19, 25) after the reformulation. Including 2015-17 data has no significant effect on these results. Conclusion: Our findings show that OxyContin's reformulation to a non-crushable tablet coincided with a dramatic reduction in new use among 13-to-21-year-olds. Given OxyContin's historic importance in the US opioid epidemic, further research is needed to examine some of the unintended consequences of introducing the abuse-deterrent formulation, such as stimulating a switch to newly incident heroin use.

Willing to present orally: Yes

Financial Support: NIDA T32DA021129 [CLT] R25DA030310 [KS]

Name of Sponsor (If you are NOT) a CPDD Member: Sanchez, Katherine

Email Address of Sponsor : Katherine.Sanchez@BSWHealth.org

Prefix: Dr.

First Name: Christopher

Middle Initial: L

Last Name: Thompson

Degrees: MA MD Ph.D etc:: MD, MHI

Email: staff@peds.clinic

CC Email: electro.thompson@gmail.com

Company Affiliation: Theo Pediatric Health

Mailing Address: 1408 Jerome St.

City: Lansing

State: MI

Zip/Postal: 48912

Country: United States

Phone: 5122499886

ID: 508
Modeling the effects of an acute psychological stressor on vaping lapse behavior

Irene Pericot-Valverde, Clemson University, ipericotvalverde@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Other

Abstract: Aim: This study aimed at exploring the effect of an acute psychological stressor on vaping lapse and relapse behavior among dependent e-cigarette users. Methods: Participants were 31 e-cigarette users (77% male, average age 19.5) who reported having used an e-cigarette for a mean length of 12.3 months and consuming an average of 3.4 mL of e-liquid daily. Participants attended two laboratory sessions under acute abstinence (≥12 hours since their last e-cigarette use) in which they were exposed to the Trier Social Stress Test (TSST) or a non-stress control condition. They subsequently started the choice task involving two periods: 1) delay period (participants had the option of starting vaping or delaying vaping for up to 50 minutes in exchange for money), and 2) self-administration period (participants were given a $5 tab to purchase e-cigarette uses for 60 minutes). Subjective (craving and stress) and physiological (heart rate) measures were also collected 5 times at each session. Results: The amount of time that e-cigarette users were able to resist vaping did not differ between conditions (control=7.6 minutes vs TSST= 10.6 minutes. The number of e-cigarette uses purchased was higher after the TSS compared to the control condition ($p < .01$). Exposure to the stressor also produced significant increases in craving, stress, and heart rate among e-cigarette users ($p < .05$). Discussion: This study used a human laboratory model for estimating the effect of stress on lapse and relapse behavior among e-cigarette users. Results showed that exposure to a psychological stressor did not undermine the ability to resist vaping among dependent e-cigarette users (i.e., lapse), but it influenced the number of uses purchased once users decided to "give in" and vape (i.e., relapse). This study also provides further evidence that human laboratory models are time- and cost-efficient measures to identify the motivational processes underlying e-cigarette use.

Willing to present orally: Yes

Financial Support: This research was supported by the Center of Biomedical Research Excellence award P20GM103644 from the National Institute of General Medical Sciences and Tobacco Centers of Regulatory Science award P50DA036114 from the National Institute on Drug Abuse.

Name of Sponsor (If you are NOT) a CPDD Member: Diann E. Gaalema

Email Address of Sponsor : Diann.Gaalema@med.uvm.edu

Prefix: Dr.

First Name: Irene

Last Name: Pericot-Valverde

Degrees: MA MD Ph.D etc:: PhD, MA

Email: ipericotvalverde@gmail.com

CC Email: ipericotvalverde@gmail.com

Company Affiliation: Clemson University

Mailing Address: 605 Grove Road

Address 2: Clemson Nursing Building

City: Greenville

State: sc

Zip/Postal: 29606

Country: United States

Phone: 8549998005

Membership Year: 2016

Sponsor: Roberto Secades-Villa, PhD

Travel Award: Won Women and Gender 2018

ID: 509
Adapting a family resilience intervention for families experiencing homelessness, trauma, and parental substance use disorders

Roya Ijadi-Maghsoodi , University of California Los Angeles, rijadimaghsoodi@mednet.ucla.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Behavior

Abstract: Aim: Trauma and parental substance use disorders are serious problems that often go unaddressed among families experiencing homelessness. Despite need, families in homeless settings rarely receive family-based treatment. Family interventions can address trauma and parental SUDs in homeless families, yet need to be tailored to homeless families. Our aim is to adapt and pilot a family-based intervention for homeless families with parental SUDs within transitional housing, to decrease family stress and improve youth mental health and coping. Methods: We are conducting a multi-phase study using a community-partnered participatory research (CPPR) approach, to adapt and implement a family resilience intervention for families with homelessness, trauma, and parental SUDs. As the first phase of our study, we conducted in-depth qualitative parent, youth, and homeless services provider interviews (n=56) across multiple housing facilities to understand family needs and factors to address in an intervention. We analyzed the interviews using content analysis to understand how to best adapt and deliver the intervention. Results: We determined a number of family processes to target in the intervention: families need support with communication given the stress of housing facilities, especially communicating to youth about substance use prevention; families need help understanding one another's traumatic experiences; and youth need help with goals beyond the family goal of finding housing. Families and providers voiced recommendations for delivering the intervention within transitional housing. Conclusion: Youth in families experiencing homelessness, trauma, and parental SUDs are at risk of SUDs and mental health problems. We describe our adaptation of a family-based intervention for homeless families, which includes adapting a family narrative to take into account multiple traumatic events, focusing communication skills on communicating about risky substances, adding a component of youth goal-setting, and tailoring skills, such as problem solving, to case management needs. Our findings can improve care for a highly under-resourced population.

Willing to present orally: Yes

Financial Support: National Institute on Drug Abuse of the Nations Institutes of Health under the AACAP NIDA K12 Program, Grant # K12DA000357

Name of Sponsor (If you are NOT) a CPDD Member: Lillian Gelberg

Email Address of Sponsor : lgelberg@mednet.ucla.edu

Prefix: Dr.

First Name: Roya

Last Name: Ijadi-Maghsoodi

Degrees: MA MD Ph.D etc:: MD, MSHPM

Email: rijadimaghsoodi@mednet.ucla.edu

CC Email: rijadimaghsoodi@gmail.com

Company Affiliation: University of California Los Angeles

Mailing Address: 760 Westwood Plaza

City: Los Angeles

State: CA

Zip/Postal: 90095

Country: United States

Phone: 310-478-3711 ext 49984

ID: 510
Risk-adjusted abstinence rates are higher with greater buprenorphine plasma exposure among patients who inject opioids

Amanda Murray, Prescott Medical Communications Group, amurray@prescottmed.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM RBP-6000 is an extended-release monthly depot formulation of buprenorphine for treatment of opioid use disorder (OUD). Post-hoc analyses from a Phase III study (NCT02357901) compared abstinence for 300mg vs. 100mg maintenance doses of RBP-6000 in participants with a history of use via injection vs. non-injection routes. METHODS Adults with moderate or severe OUD were randomized to RBP-6000 300/100mg, 300/300mg, or placebo for 24 weeks. The RBP-6000 dosing regimens were 2 monthly injections of 300mg followed by 4 monthly maintenance doses of 100mg or 300mg. Abstinence was defined as opioid-negative urine samples and negative self-reports. Risk-adjusted percentage abstinence was estimated from Week 10 to 25 using inverse propensity weighting with propensity score to balance risk factors prior to the first maintenance dose on Week 9; participants randomized to placebo and/or who discontinued prior to Week 9 were excluded. Buprenorphine pharmacokinetics and exposure-response relationships were evaluated. RESULTS Of the 164 participants in the RBP-6000 groups who had injected opioids and the 225 who had not injected, 130 and 183, respectively, were included in the risk-adjusted analyses. Among injecting users, the risk-adjusted mean (SD) percentage abstinence (Weeks 10-25) was 60.1% (37.14%, N=63) for 300/300mg vs. 45.3% (40.40%, N=67) for 300/100mg. Among non-injecting users, mean (SD) percentage abstinence was 45.9% (40.56%, N=92) for 300/300mg vs. 53.30% (38.27%, N=91) for 300/100mg. After the last injection (Weeks 22-25) where differences in plasma exposure were the greatest, differences were more pronounced in injecting users (mean percentage abstinence of 67.2% for 300/300mg vs. 41.6% for 300/100mg). Overall, the findings were consistent with exposure-response analyses: injecting users achieved maximal response at higher buprenorphine plasma concentrations than did non-injecting users (~6 ng/mL, corresponding to average plasma concentrations for 300/300mg at steady-state). CONCLUSION Post-hoc analyses suggest that injecting opioid users benefit from the higher buprenorphine exposure reached with the 300-mg maintenance dose.

Willing to present orally: No

Financial Support: Indivior Inc

Name of Sponsor (If you are NOT) a CPDD Member: Howard Chilcoat

Email Address of Sponsor : howard.chilcoat@Indivior.com

Prefix: Ms.

First Name: Amanda

Middle Initial: J.

Last Name: Murray

Email: amurray@prescottmed.com

Company Affiliation: Prescott Medical Communications Group

Mailing Address: 205 N Michigan

Address 2: 3400

City: Chicago

State: IL

Zip/Postal: 60601

Country: United States

Phone: 3125283928

ID: 511
The memories that linger: the effect of opiate withdrawal and conditioned opiate withdrawal on memory consolidation

Francesco Leri, University of Guelph, fleri@uoguelph.ca

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Behavior

Abstract: AIM: Opiate withdrawal can be associated to a context through classical conditioning to produce conditioned withdrawal. To explore the role of conditioned withdrawal in memory processes, this research investigated whether conditioned withdrawal could impact memory consolidation. METHODS: Two experiments in males Sprague-Dawley rats compared the effects of naltrexone-precipitated withdrawal and conditioned morphine withdrawal on consolidation of object recognition memory. In Experiment 1, 1 and 3 mg/kg naltrexone was administered immediately, or 6 hours, post-sample to morphine-naïve and morphine-dependent animals (osmotic mini-pumps; 10 mg/kg/day). The post-training effects of naltrexone were re-tested 7 days following removal of the pumps. In Experiment 2, morphine-naïve and morphine-dependent rats were confined for 2 hours in a distinctive chamber (CS+) following naltrexone injections (1 or 3 mg/kg) and in another chamber (CS-) following vehicle injections. This was repeated for 10 days: 5 naltrexone/CS+ pairings and 5 vehicle/CS- parings. The effects of immediate or delayed (6 hrs) post-sample exposure to the CS+ and CS- were tested during dependence, and 7 days following removal of pumps. RESULTS: Experiment 1 found that 3 mg/kg naltrexone enhanced object recognition memory when administered immediately, but not 6 hours, post-training in morphine dependent and post-dependent, but not morphine-naïve, rats. During conditioning in the CS+, Experiment 2 found that naltrexone supressed locomotor activity, caused rapid body weight loss, and increased frequency of wet dog shakes in morphine-dependent rats only. When confined in the CS+ without naltrexone injections, rats displayed suppressed locomotion, weight loss and wet-dog shakes. More importantly, exposure to CS+ immediately, but not 6 hours, post-training enhanced object recognition memory during dependence and post-dependence. CONCLUSIONS: These experiments indicate that both acute precipitated and conditioned withdrawal have significant and persistent faciliatory effects on memory consolidation. This suggests that conditioned effects on memory processes can play a significant role in addictive behaviours.

Willing to present orally: Yes

Financial Support: Natural Sciences and Engineering Research Council of Canada.

Prefix: Dr.

First Name: Francesco

Last Name: Leri

Degrees: MA MD Ph.D etc:: Ph.D.

Email: fleri@uoguelph.ca

CC Email: fleri@uoguelph.ca

Company Affiliation: University of Guelph

Contact Title: Assistant Professor

Mailing Address: 50 Stone Road East

City: Guelph

State: ON

Zip/Postal: N1G 2W1

Country: Canada

Phone: (519) 546-5060

Fax: (519) 837-8629

Membership Year: 2004

Sponsor: Dr. L.H. Gold and Dr. H.dewit

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 512
Emotion regulation moderates the relationships between substance use and risky sexual behaviors

Adrienne Gilmore-Thomas, UTHealth Science Center Houston, adrienne.gilmorethomas@uth.tmc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Prevention

Abstract: Aims: Substance using individuals are more likely to engage in risky sexual behaviors (RSBs) and less likely to engage in HIV-preventative behaviors (HPBs). This study examined the role of emotion regulation (ER) as a potential moderator between substance use (SU) and RSBs. Methods: The sample consisted of 46 participants (agem = 42.72, SD=12.91) in HEARTS@UTHealth, a program offering HIV prevention and SU treatment. 56.5% were African American and 23.9% Latinx. 65.2% were male. Participants completed the Risk Assessment Battery (RAB) and Difficulties with Emotion Regulation Scale (DERS) at intake. Results: Linear regression analyses determined the degree to which past 30-day SU predicted engagement in RSBs (sex while intoxicated, number of HIV tests) and whether ER (Impulsivity, Clarity, Non-Acceptance & Strategies) were moderators. 89.1% reported past 30-day SU, 16.7% reported never being tested for HIV, 21.7% reported not using condoms. SU and sex while intoxicated were correlated ($r = .273$, $p < .05$). For predicting sex while intoxicated, adding the interaction term of SU x impulsivity was significant ($r2 = .4325$, $F(3,32) = 8.13$, p

Willing to present orally: Yes

Financial Support: HEARTS@UTHealth is a SAMHSA-funded service project

Name of Sponsor (If you are NOT) a CPDD Member: Joy Schmitz

Email Address of Sponsor : Joy.M.Schmitz@uth.tmc.edu

Prefix: Dr.

First Name: Adrienne

Last Name: Gilmore-Thomas

Degrees: MA MD Ph.D etc:: Ph.D.

Email: adrienne.gilmorethomas@uth.tmc.edu

CC Email: adrienne.gilmorethomas@uth.tmc.edu

Company Affiliation: UTHealth Science Center Houston

Mailing Address: CNRA

Address 2: 1941 East road

City: Houston

State: TX

Zip/Postal: 77054

Country: United States

Phone: 7134862736

ID: 513
Sex differences in implicit brain connectivity of cocaine users: Opposite patterns of connectivity for males and females in resting-state functional magnetic resonance imaging

Breno Sanvicente-Vieira, Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS), School of Health Sciences, Developmental Cognitive Neuroscience Lab, brenosanvicente@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Sex Differences

Abstract: AIM: Studies have shown that cocaine users have changes in brain implicit functioning with increased mesocorticolimbic functional connectivity (FC) in comparison to healthy controls, as shown by resting-state functional magnetic resonance imaging (rsfMRI). However, the clinical course and manifestations of cocaine use have sex differences. Thus, this study aimed to test sex differences in implicit brain functioning of cocaine users. METHODS: Cocaine users (20 males, CKM; and 20 females, CKF) and healthy controls (20 males, HCM; and 20 females, HCF) undertook a rsfMRI exam and results were analyzed for regional connectivity with Regional Homogeneity (ReHo). Based on the areas that showed sex differences in the ReHo, seed-based FC was investigated. RESULTS: CKF showed lower regional connectivity than other groups in right postcentral and left precentral gyri; and lower regional connectivity only than CKM in right superior frontal and parahippocampal gyri and claustrum. CKM showed higher regional connectivity than other groups in left superior frontal gyrus and claustrum, besides the right middle temporal gyrus. Related to CKF, CKM showed several results of higher FC between frontal, central and paralimbic areas. Differences between male groups existed, but restricted to higher FC for CKM across temporal areas. Differences between female groups also existed, but restricted to lower FC for CKF within cortical areas. Correlational analyses indicated that claustrum-precuneus FC associates with years of cocaine use for CKF ($r = -0.553$, $p = 0.011$), but not for CKM ($r = 0.258$, $p = 0.273$). Differently, years of cocaine use associated with parahippocampal-middle frontal gyrus FC for CKM ($r = 0.555$, $p = 0.011$), but not for CKF ($r = -0.222$, $p = 0.348$). CONCLUSIONS: Findings support sex differences in intrinsic brain functioning of cocaine users, suggesting sex-specific pathophysiology related to cocaine use, which needs consideration when targeting evidence-based interventions in the future.

Willing to present orally: Yes

Financial Support: This study was funded by MCT/CT-Saúde—DECIT/SCTIE/MS, Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) (Grant number 466802/2014-5), Fundação de Amparo à Pesquisa do Estado do Rio Grande do Sul (FAPERGS) (Grant number 11/1302-7), Secretaria Nacional de Políticas sobre Drogas (SENAD)/ Ministério da Justiça (Grant number 822647/2015). This study was also financed in part by the Coordenação de Aperfeiçoamento de Pessoal de Nivel Superior – Brasil (CAPES) – Finance Code 001.

Name of Sponsor (If you are NOT) a CPDD Member: Joy Schmitz

Email Address of Sponsor : joy.m.schmitz@uth.tmc.edu

Prefix: Dr.

First Name: Breno

Last Name: Sanvicente-Vieira

Degrees: MA MD Ph.D etc:: MS, Ph.D

Email: brenosanvicente@gmail.com

CC Email: brenosanvicente@gmail.com

Company Affiliation: Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS), School of Health Sciences, Developmental Cognitive Neuroscience Lab

Mailing Address: PUCRS, Avenida Ipiranga 6690, Building 63, Jardim Botânico

City: Porto Alegre

State: RS

Zip/Postal: 90520620

Country: Brazil

Phone: +55 51 999934873

ID: 514
Clinical characteristics and health status of potential medical cannabis users in Arkansas

Lauren Russell, University of Arkansas for Medical Sciences, LNRussell@uams.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Epidemiology

Abstract: AIM Despite federal prohibition, individual states are trending towards normalization of medical and recreational cannabis use. Arkansas is one of 29 states that have legalized medical use of cannabis, and medical cannabis (MC) should be available early 2019. As of April 2018 there are 4,860 MC registration card applicants in Arkansas, but estimates for MC applications once product is available range between 20,000 and 40,000. Importantly, there is currently no available information regarding clinical characteristics and health statuses of potential MC users. Because individuals in Arkansas are already receiving MC registry cards but do not yet have legal access to MC products, an opportunity to capture baseline information of potential users exists. This poster will describe how data collected from Arkansans can be useful for tracking changes in perception of benefit and harm resulting from MC use over time, describing outcome expectancies resulting from MC use, and determining if actual outcomes meet those expectations. METHODS Using a 40-minute self-administered online survey, including a newly developed core assessment battery, we captured current health, quality of life (Qol), marijuana use, and demographic characteristics of 1,695 participants recruited by flyers and social media announcements. RESULTS Of the 937 who have or planned to apply for the MC registration card, the majority reported having “intractable pain/pain not responding to ordinary treatment” (34.0%), followed by PTSD (25.5%), and severe arthritis (25.4%). Regarding the 983 individuals that reported ever using marijuana, 47.8% reported use within the past 30 days. Individuals with reported use in the past year had the highest Qol. CONCLUSION Successful implementation of this survey has enabled us to capture baseline data never before available regarding clinical characteristics and health status of potential MC users, and positions us to track changes in these measures as MC products become available.

Willing to present orally: Yes

Financial Support: Supported by 7-Hybrid Cultivation, UAMS TRI, and DA022981.

Name of Sponsor (If you are NOT) a CPDD Member: William Fantegrossi

Email Address of Sponsor : WEFantegrossi@uams.edu

Prefix: Ms.

First Name: Lauren

Middle Initial: N

Last Name: Russell

Degrees: MA MD Ph.D etc:: BS

Email: LNRussell@uams.edu

Company Affiliation: University of Arkansas for Medical Sciences

Mailing Address: Department of Pharmacology and Toxicology

City: Little Rock

State: AR

Zip/Postal: 72205

Country: United States

Phone: 501-686-8645

ID: 515
Innovative solutions to opioid overdose mortality crisis: Safe consumption sites

Alex Kral, RTI International, akral@rti.org

Abstract Category: Program Descriptions

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Prevention

Abstract: Aim: This presentation aims to describe an innovative program to stem overdose mortality crisis. With over 70,000 overdose deaths in the United States in 2017, we need to consider innovative solutions to stem overdose mortality. When someone overdoses of a combination of drugs that includes opioids, they can easily be revived by giving them oxygen or naloxone. To stem overdose mortality, we need several ways that help ensure that when people overdose, they are close to someone who can provide oxygen or naloxone. Safe consumption sites (SCS) are places where people can use drugs under the supervision of a health professional equipped with oxygen and/or naloxone. Legally sanctioned SCS have existed for over 30 years and in 120 cities in 11 countries. Noone has died of an overdose at a SCS. Several U.S. cities are planning to implement SCS this year, including New York City, Philadelphia, Seattle, and San Francisco. We have been evaluating an unsanctioned SCS program in an undisclosed location in the U.S. since its inception in September 2014. The site is small, including just six injection booths. We will provide descriptions of the program, as well as data collected from every individual using the SCS to inject drugs from September 2014 to November 2018. The SCS was used for 8,619 injecting events during the four years of operation. 17 opioid-related overdoses occurred, with all being reversed successfully by staff using naloxone alone (16 events), naloxone and oxygen (5 events) or oxygen alone (1 event). This preliminary work supports the suggestion that SCS facilities can help reduce overdose mortality. Conclusion: These data suggest it would be worth conducting pilots of sanctioned SCS in U.S. to see if they can help stem the overdose mortality crisis. This evaluation is financially supported by the Laura and John Arnold Foundation.

Willing to present orally: Yes

Financial Support: This evaluation is financially supported by the Laura and John Arnold Foundation.

Name of Sponsor (If you are NOT) a CPDD Member: Ricky Bluthenthal

Email Address of Sponsor : rbluthen@usc.edu

Prefix: Dr.

First Name: Alex

Middle Initial: H

Last Name: Kral

Degrees: MA MD Ph.D etc:: PhD

Email: akral@rti.org

CC Email: akral@rti.org

Company Affiliation: RTI International

Mailing Address: 351 California Street Suite 500

City: San Francisco

State: CA

Zip/Postal: 94104

Country: United States

Phone: 4158481314

ID: 516
Pain decreases after transition from chronic opioid therapy for pain to buprenorphine

Kelly Barth, Medical University of South Carolina, stephen@musc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Tolerance/Dependence

Abstract: AIM: To measure self-reported and laboratory-induced pain before and after transition to buprenorphine for patients on chronic opioid therapy for pain METHODS: Subjects were 25 individuals on chronic (> 6 months) opioid therapy for pain without substance use disorder enrolled in an ongoing randomized controlled trial evaluating the efficacy of a buprenorphine taper + gabapentin vs. placebo on 10-week opioid discontinuation rates. Brief Pain Inventory (BPI) Short Form and Mechanical Pain Laboratory Testing were administered at baseline (while on chronic full-agonist opioid therapy for pain) and 2 weeks after transition to and titration of buprenorphine up to 24mg and gabapentin/placebo up to 1600mg daily. Two-tailed t-tests were used to compare baseline and 2-week pain measurements. RESULTS: Participants (68% female, 68% Caucasian, mean age 53) had a mean baseline morphine equivalent dose of 63 (range 20-150). Measures of pain on the BPI dropped significantly after transition to buprenorphine, including average pain (6.2 - 4.9, p.05) and during a cold pressor task (325 - 345, p>.05). There were no significant differences in pain measures between randomization arms (gabapentin vs. placebo). CONCLUSION: Transition from chronic opioid therapy for pain to buprenorphine can result in improvements in self-reported and laboratory measures of pain.

Willing to present orally: Yes

Financial Support: K23 DA039328-01A1

Prefix: Dr.

First Name: Kelly

Last Name: Barth

Degrees: MA MD Ph.D etc:: DO

Email: stephen@musc.edu

Company Affiliation: Medical University of South Carolina

Mailing Address: 67 President Street

City: Charleston

State: SC

Zip/Postal: 29425

Country: United States

Phone: 843-792-0686

Sponsor: Dr. Kathleen Brady and Dr. Sudie Back

Research Interests: Pharmaceutical Medicine,Treatment

ID: 517
Pharmacologic interventions for cannabis use disorder: A systematic review

Shannon Nugent, VA Portland Health Care, shannon.nugent@va.gov

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Dependence

Abstract: Aim: We conducted a systematic review and meta-analysis of the benefits and risks associated with the use of various pharmacotherapy treatments for increasing treatment retention and promoting cessation/reduction of cannabis use among individuals with cannabis use disorder (CUD). Methods We searched electronic databases, clinical trial registries, and references lists through November 2018 for randomized clinical trials (RCTs) directly comparing pharmacological interventions against each other, placebo, usual care, or psychotherapy in adults with CUD. We abstracted data on study design and outcomes. We dual assessed study quality and graded the strength of evidence (SOE) using published criteria. Results: We included 24 primary studies. Antidepressants were the most widely studied drug class. We found moderate strength of evidence (SOE) that subjects receiving antidepressants are less likely to achieve abstinence (combined RR = 0.49, 95% CI = 0.30-0.83), and that antidepressants are no different from placebo in reducing overall cannabis use or improving retention in treatment. We found no difference between antidepressants and placebo in withdrawals due to serious adverse events (Low SOE). We found no difference between THC-preparations or placebo to improve treatment retention (combined RR = 1.06, 95% CI = 0.89 to 1.25; Low SOE), reduce cannabis use (Low SOE) or result in withdrawals due to serious adverse events (Insufficient SOE). With most other drug classes examined, there was insufficient evidence to draw conclusions. Conclusion: There do not appear to be available pharmacotherapies that have a positive benefit for the treatment of CUD. It is possible that many trials had insufficient power to detect differences, compounded by high attrition. Future studies should be larger and assess clinically relevant and uniform outcomes, including the reduction in use and defined periods of abstinence, with an additional focus on retaining participants in treatment. Development of novel interventions to treat CUD are needed.

Willing to present orally: Yes

Financial Support: U.S. Department of Veterans Affairs: Evidence Synthesis Program

Name of Sponsor (If you are NOT) a CPDD Member: Todd Korthuis

Email Address of Sponsor : korthuis@ohsu.edu

Prefix: Dr.

First Name: Shannon

Last Name: Nugent

Degrees: MA MD Ph.D etc:: PhD

Email: shannon.nugent@va.gov

Company Affiliation: VA Portland Health Care

Mailing Address: 160 SW 90th Ave

City: Portland

State: OR

Zip/Postal: 97225

Country: United States

Phone: 9703895604

ID: 518
The sigma1 receptor antagonist CM304 enhances the antinociceptive effects of morphine and the cannabinoid receptor agonist CP55,940 in mice

Samuel Obeng, University of Florida, Dept. of Pharmacodynamics, obengs@cop.ufl.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Other Drug Category: Marijuana/Cannabinoids

Topic: Treatment

Abstract: AIM: There is an overdose epidemic associated with the use of illicitly manufactured as well as prescription mu-opioid agonists. Sigma1 receptor (σ1R) antagonists in combination with other drugs may provide a viable, safe pharmacological option for treating pain. The present study compared pharmacological effects of the σ1R antagonist CM304 alone and in combination with morphine or the cannabinoid agonist CP55,940 in C57BL/6J mice. METHODS: Rectal temperature, tail withdrawal latency from warm water of various temperatures (45°C, 50°C and 55°C) and counts of unhabituated locomotor activity were measured in this order. RESULTS: Basal latency for tail withdrawal systematically decreased from 10 s at 45°C to 1.5 s at 55°C. Morphine dose-dependently increased maximum possible effects (MPE) up to 100% at 55°C (ED50 values: 18.9 mg/kg). CP55,940 was less active at 55°C (Emax values (SEM): 43.5 (16.6) %). At 55°C, CM304 was without effects on tail withdrawal latency. However, CM304 (56 mg/kg) dose-dependently shifted the dose-effect function of morphine 3-fold leftward. CM304 produced an upward shift in the CP55,940 dose-effect function such that 100% MPE was achieved at 3.2 mg/kg CP55,940. While CM304 alone did not alter tail withdrawal latency, it did increase activity at a small dose (32 mg/kg) and decrease activity at a larger dose (56 mg/kg). However, CM304 did not modify all effects of morphine and CP55,940 because CM304 was inactive against morphine- and CP55,940-induced hypothermia. CONCLUSION: The present results may support the development of a σ1R antagonist as an adjunct to opioids for analgesia, which could contribute to a decrease in opioid overdose death. Further, the results indicate that a σ1R antagonist could also be used to increase the analgesic effectiveness of cannabinoid agonists.

Willing to present orally: No

Financial Support: Supported by DA25267 and DA48353

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Lance McMahon

Email Address of Sponsor : lance.mcmahon@cop.ufl.edu

Prefix: Dr.

First Name: Samuel

Last Name: Obeng

Degrees: MA MD Ph.D etc:: Ph.D Medicinal Chemistry

Email: obengs@cop.ufl.edu

Company Affiliation: University of Florida, Dept. of Pharmacodynamics

Mailing Address: 3515 SW 39th Blvd, Apt 28C

City: Gainesville

State: FL

Zip/Postal: 32608

Country: United States

Phone: 8042990225

ID: 519
Pain town: An agent-based model of opioid policy effects in a small community

Georgiy Bobashev, RTI International, bobashev@rti.org

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Policy

Abstract: AIM. To illustrate the effectiveness of prevention, treatment and harm reduction strategies to reduce opioid overdose, mortality and prevalence of misuse. METHODS. We developed a simulation model to illustrate and evaluate the potential effects of opioid-related policies and interventions at the community level. Our agent-based model describes a population where some individuals develop chronic or acute pain, and are prescribed opioids by a physician. Pain patients can develop opioid dependence, and some can start misusing prescription opioids, use of heroin (which could be laced with fentanyl). We consider (1) connectivity between the patients, e.g. patients can obtain prescription opioids from their network connection, (2) connectivity between patients and physicians, such that patients can "doctor shop", and (3) connectivity between drug dealers and some members of the community that act as "brokers" between the dealers and other members of the community. The model simulates individual patients' life trajectories with respect to the use of opioids under different policies. We considered prevention, treatment and harm reduction policies that include prescription drug monitoring programs (PDMP), reduced initial opioid dose distribution of naloxone to counter overdose, medication-assisted treatment of problem users, and tamper-proof pills to prevent noncompliant behavior. Model outcomes include overdose and mortality rates of prescription opioid users, the overdose and mortality rates of heroin users, and the number of patients who turn to illicit means to acquire their drugs. RESULTS. Simulation study results show strong effects of naloxone use, very marginal short-term effects of PDMP compliance, and few to no positive effects of tamper-resistant medications on non-child opioid use trajectories. The effects of naloxone are observed short-term, while the effects of PDMP are long-term. CONCLUSION. Our simulations suggest that multiple interventions are needed to effectively address opioid problem. Cost-benefit analysis of intervention mix is the next step to translate epidemiological results into actionable policies.

Willing to present orally: Yes

Financial Support: None declared

Prefix: Dr.

First Name: Georgiy

Last Name: Bobashev

Degrees: MA MD Ph.D etc:: Ph.D.

Email: bobashev@rti.org

Company Affiliation: RTI International

Mailing Address: 3040 Cornwallis Rd., PO Box 12194

City: Research Triangle Park

State: NC

Zip/Postal: 27709

Country: United States

Phone: (919) 541-6167

Fax: (919) 541-6722

Membership Year: 1998

Sponsor: Howard Chilcoat & James C. Anthony

ID: 520
The earliest versus later syndromes of cannabis use disorders: Incidence versus prevalence

Christopher Thompson, Theo Pediatric Health, staff@peds.clinic

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Epidemiology

Abstract: Aim: We posit multiple syndromes of DSM-5 cannabis use disorders, observed in population strata ranked by elapsed time since 1st use (ETS1U). This report is based on mid-study estimates based on experiences of more than 3500 newly incident users observed within 90 days of 1st cannabis use, all sampled and assessed for the United States National Surveys on Drug Use and Health (US; NSDUH). Methods: US populations under study consisted of non-institutionalized civilian residents age 12-years-and-older, as sampled cross-sectionally for NSDUH, 2004-2014. Computerized self-interviews identified and assessed 17 cannabis PE. Starting with 3710 new cannabis users in the ETS1U < 9 0-days stratum, we have derived analysis-weighted year-specific incidence and odds ratio (OR) estimates for individual PE and PE-PE syndromic co-occurrences. Meta-analysis helps confirm reproducibility of the estimates. Results: Mid-study results based on 3710 new cannabis users observed within 90 days after 1st cannabis use show that an estimated ~54% wanted or tried 'to cut down or stop using cannabis,' and 25% had 'spent a lot of time getting or using cannabis.' The OR estimate for this PE-PE-pair was 2.8 (95% CI = 2.0, 4.0). 'Being unable to keep limits' and 'caused physical problems' were less likely to occur, but showed quite strong PE-PE co-occurrence (OR = 18.0, with lower 95% bound = 2.0). Conclusion: At study midpoint, we offer preliminary conclusions about these cannabis 'side effects' observed within 90 days after 1st cannabis use. Of ~128 possible PE-PE co-occurrences, a small set of pairs occur much more frequently during this segment of elapsed time. Completion of this work, stratum-by-stratum, may confirm our expectations about multiple DSM-5 cannabis use disorder syndromes, differentiated by elapsed time since 1st use.

Willing to present orally: Yes

Financial Support: NIDA T32 DA021129 [CLT and KA] and K05DA015799 [JCA]

Name of Sponsor (If you are NOT) a CPDD Member: anthony, jc

Email Address of Sponsor : janthony@msu.edu

Prefix: Dr.

First Name: Christopher

Middle Initial: L

Last Name: Thompson

Degrees: MA MD Ph.D etc:: MD, MHI

Email: staff@peds.clinic

CC Email: electro.thompson@gmail.com

Company Affiliation: Theo Pediatric Health

Mailing Address: 1408 Jerome St.

City: Lansing

State: MI

Zip/Postal: 48912

Country: United States

Phone: 5122499886

ID: 521
Compulsion zone theory explains different duration's of extinction responding with different cocaine analogues

Dakota Zinani, University of Cincinnati, zinanidb@mail.uc.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Stimulants

Topic: Behavior

Abstract: AIM: The compulsion zone theory of cocaine self-administration states that lever pressing behavior is induced only when concentrations are between the priming and satiety thresholds. This provides an explanation for responding after termination of access to cocaine (the extinction phase of each session). If this response is based on receptor occupancy, self-administered drugs with longer durations of action would be expected to induce protracted extinction responding. METHODS: To test this hypothesis extinction responding was measured in rats after self-administering cocaine (n = 11 rats) or the cocaine-mimetic drugs, RTI-55 (n = 7 rats), WIN 35,428 (n = 7 rats), and bupropion (n = 7 rats). The general pattern of lever pressing during the extinction phase was similar across these drugs. RESULTS: However, lever pressing behavior would extinguish around an average of 18 minutes with cocaine, while responding induced by RTI-55 would extinguish within an average of 288 minutes. Additionally, there were, on average, 20 presses or 83 lever presses after termination of access to cocaine or RTI-55, respectively. These durations and numbers of lever presses were significantly different (p CONCLUSION: The different durations of extinction responding and numbers of extinction presses are not consistent with the idea that extinction occurs because animals learn that the drug is no longer available. Importantly, the compulsion zone theory may be applicable to self-administered stimulants other than cocaine. Thus, drugs with a longer half-life take longer to transit the compulsion zone and induce lever-pressing behavior for a correspondingly longer time. These data predict that drugs with a longer half-life would have an increased likelihood of relapse. A more complete understanding of drug induced behavior following termination to drug access would potentially lead to more targeted treatment options.

Willing to present orally: Yes

Financial Support: Supported by NIDA grant U01DA039550

Prefix: Mr.

First Name: Dakota

Middle Initial: B

Last Name: Zinani

Degrees: MA MD Ph.D etc:: BS

Email: zinanidb@mail.uc.edu

Company Affiliation: University of Cincinnati

Mailing Address: 6949 Lynnfield Court

Address 2: apt 131

City: Cincinnati

State: Ohio

Zip/Postal: 45243

Country: United States

Phone: 5136011438

Sponsor: Dr. Andrew Norman, PhD

Research Interests: Behavioral Pharmacology,Pharmacology

Date of Membership: applying for MIT 1.1.19

ID: 522
In vivo evidence of lower synaptic density in cocaine users vs. healthy controls using 11C-UCB-J PET, independent of gray matter volume changes

Gustavo Angarita, Yale University School of Medicine, gustavo.angarita@yale.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Imaging

Abstract: AIM: Studies in rodents have shown robust/long lasting (>1 month) changes in dendritic spines in brain (e.g., increases in nucleus accumbens (NAc) and medial prefrontal (mPFC), and decreases in orbitofrontal cortex (OFC)) after stimulant/cocaine administration. Our group validated the in vivo use of 11C-UCB-J for imaging synaptic density in humans, using positron emission tomography (PET). 11C-UCB-J binds to synaptic vesicular glycoprotein 2A (SV2A), a ubiquitous presynaptic vesicular protein in neurons. We sought to test whether synaptic density as measured by the total volume of distribution (VT) corrected for 11C-UCB-J free fraction in plasma (VT/fP) is different in Cocaine Use Disorder (CUD) vs. Healthy Controls (HC) and, if different, reflected in different gray matter volume (GMV). Methods: CUD (N=15) and HC (N=15) subjects underwent a single 60 - 90 min 11C-UCB-J PET scan with arterial line/full radiometabolite analyses after two weeks of inpatient abstinence and as outpatients, respectively. Subjects had structural magnetic resonance images (MRI) for coregistration with PET scans and voxel-based morphometry (VBM) to compare regional GMV with 11C-UCB-J binding. Between-group comparisons of GMV and VT/fP employed independent samples t-tests as well as statistical parametric mapping (SPM) with an uncorrected threshold of $P < 0.01$. Results: CUD subjects (43±7 years; 3F/12M; 9 African American, 5 Caucasian, 1 Hispanic) averaging 18±9 years and 18±7 days/month of cocaine use were scanned after 15±3 days of abstinence and compared to individually matched HC (43±9 years; 3F/12M; 9 AA, 5 C, 1 H; p=NS). Analyses revealed lower VT/fP values in CUD vs. HC (70±7.7 vs. 79±10.7, respectively; p=0.01) in medial orbitofrontal cortex (mOFC). In CUD, there was no correlation between mOFC 11C-UCB-J binding and GMV (r=0.16, P=0.562). Conclusion: Results support lower synaptic density in the mOFC independent of changes in GMV. Replication of these findings in larger cohorts is warranted.

Willing to present orally: Yes

Financial Support: R21DA044005 from the National Institute on Drug Abuse (NIDA)

Name of Sponsor (If you are NOT) a CPDD Member: Robert T. Malison

Email Address of Sponsor : robert.malison@yale.edu

Prefix: Dr.

First Name: Gustavo

Middle Initial: A

Last Name: Angarita

Degrees: MA MD Ph.D etc:: MD

Email: gustavo.angarita@yale.edu

CC Email: gustavo.angarita@yale.edu

Company Affiliation: Yale University School of Medicine

Contact Title: Attending Psychiatrist

Mailing Address: 34 Park Street

Address 2: CNRU

City: New Haven

State: CT

Zip/Postal: 06519

Country: United States

Phone: 203.974.7536

ID: 523
Drug analysis as a harm reduction tool: Setting up a HPLC in a 7-day psychedelic music event

Daniel Martins, Kosmicare Association / Faculty of Sciences of Porto University, danieljosemmartins@gmail.com

---

Abstract Category: Program Descriptions

Abstract Detail: Human

Drug Category: Polydrug

Topic: Other

Other Topic: Harm Reduction

Abstract: AIM The analysis of psychoactive drug samples provided by potential users with the aim of assessing their actual content has been presented as community-based intervention practice since the 1960s. However, in the last decade with the appearance of New Psychoactive Substances, this type of service is getting more attention as harm reduction tool. The analytical techniques usually applied in situ (eg. festivals) must possess specific characteristics such as being fast and easy to operate by technicians. The use of reliable techniques such as high-performance liquid chromatography (HPLC), is restricted to drop-in centers or well equipped laboratories. The use of HPLC at a festival or party is desirable, but presents a number of challenges for implementation. METHODS Kosmicare is an association that provides harm reduction services in different contexts. At 2018's Boom Festival, one of the major psychedelic festivals that gathers around 40.000 people during a full week, Kosmicare offered drug analytics to festival attendees. A temporary laboratory was assembled where 8 chemists analyzed drug samples through thin layer chromatography, UV-spectroscopy and HPLC. RESULTS During the 7-day intervention, Kosmicare analyzed 671 samples, quantified 84 samples of LSD and 56 samples of MDMA. More than 35 pills analyzed contained high dosage of MDMA (>150 mg), which prompted Kosmicare to launch alerts on the festival grounds. Cocaine was the substance more adulterated: of the 43 samples submitted to the service as cocaine, 9 samples contained cocaine plus other substance(s) and in 22 samples cocaine was not found at all. CONCLUSION Although the implementation of this analytical service presented several challenges due to the harsh conditions of the festival, we were able to analyze more than 670 samples during the 7 days of the event. The gathering of information about the exact quantity of psychoactive compound present in the samples proved very important.

Willing to present orally: Yes

Financial Support: This intervention was possible due to collaboration with Energy Control (Spain) and funding of Boom Festival (Portugal) and Isomer Design (Canada).

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Sidney Schnoll

Email Address of Sponsor : sschnoll@pinneyassociates.com

Prefix: Mr.

First Name: Daniel

Middle Initial: José Monção

Last Name: Martins

Degrees: MA MD Ph.D etc:: Mac

Email: danieljosemmartins@gmail.com

Company Affiliation: Kosmicare Association / Faculty of Sciences of Porto University

Mailing Address: Rua de Camões, 737

City: Porto

State: N/A

Zip/Postal: 4000-148

Country: Portugal

Phone: +351934982635

ID: 524
Externalizing symptom and trait trajectories of youth who become regular alcohol users

Kara Bagot, University of California, San Diego; Department of Psychiatry, kbagot@ucsd.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Adolescent

Abstract: Aim Adolescent alcohol use is highly comorbid with externalizing psychopathology. Prior work demonstrates cross-sectional relationships, but temporal associations have not been clearly identified. The aim of this study is to identify psychopathological vulnerabilities for, and consequences of, binge drinking in a longitudinal study of youth. Methods This study examines three years of longitudinal data (baseline, and follow-ups one and two years later) from the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA). Eight hundred and thirty-one 12-21 years-olds were recruited at baseline; 769 who had not initiated any regular binge drinking by baseline were included in these analyses. Results Fifteen percent (n=115) transitioned to regular binge drinking by the 2-year follow-up. At baseline, those who would transition to regular binge drinking during the 2 years demonstrated greater externalizing and rule-breaking symptoms, more sensation-seeking and extroverted traits, and lower perseverance scores than those who remained low or non-drinking. Sensation-seeking, negative urgency and extroversion predicted an increased probability of transition, with sensation-seeking conferring 41% greater risk ($p < 0 .0001$). Those who transitioned to regular binge drinking demonstrated increasing extroversion, premeditation, aggression and positive urgency, and decreased emotional stability prior to and following transition. Among transitioners, females demonstrated greater rule-breaking ($p < 0 .01$) than males following transition to regular binge drinking. Conclusions Externalizing symptoms and personality traits confer the greatest risk of transition to regular binge drinking during adolescence. Among those who convert to regular binge drinking, many externalizing symptoms and traits significantly increase over time from pre- to post-binging. Females are at greater risk of escalating externalizing symptomatology and traits as well as internalizing somatization following transition to regular binge drinking. Binge drinking interventions should target adolescents with externalizing symptoms and traits, and young adults who have converted to regular binge drinking given the increased risk of escalating externalizing symptoms.

Willing to present orally: No

Financial Support: U01 AA021692 (Tapert) NIH/NIAAA National Consortium on Alcohol and NeuroDevelopment in Adolescence

Prefix: Dr.

First Name: Kara

Middle Initial: Simone

Last Name: Bagot

Degrees: MA MD Ph.D etc:: MD

Email: kbagot@ucsd.edu

Company Affiliation: University of California, San Diego; Department of Psychiatry

Mailing Address: 9500 Gilman Drive

Address 2: MC0405

City: La Jolla

State: CA

Zip/Postal: 92093

Country: United States

Phone: 8582462553

ID: 525
Stakeholder perspectives on enhancing hepatitis C (HCV) screening, access, and linkage to care in the homeless population

J Konadu Fokuo, University of California, San Francisco, konadu.fokuo@ucsf.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Treatment

Abstract: AIM Prevalence rates for hepatitis C (HCV) in the homeless population are estimated to be four times that of the general public. Homeless individuals are disproportionately affected by substance use and mental health disorders, and constitute a group that remains under diagnosed and treated for HCV. This study sought the perspectives of key stakeholders toward establishing a universal HCV screening and treatment protocol for individuals accessing homeless shelters. METHODS We conducted separate focus groups with social service providers and homeless shelter directors (N = 11) in San Francisco. Interview topics addressed key implementation issues including resources available to effectively manage HCV, patient needs, attitudes toward the integration of HCV care in the shelter, prior knowledge or experiences in managing patients treated for HCV in the shelter, and recommendations for improving HCV services. Transcribed focus groups were analyzed using qualitative thematic analysis. RESULTS Seven major themes emerged from our analysis: 1) high acceptability and buy in, 2) workforce constraints in the shelter, 3) a collaborative cross agency team 4) chronic substance use and mental health issues, 5) change HCV treatment narrative 6) medical restrictions of the shelter, and 7) importance of peer-based education. Overall, participants acknowledged the value of establishing integrated HCV support services within homeless shelters and recommended resources needed for optimal implementation. CONCLUSION Stakeholder feedback yielded high acceptability for the integration of a universal protocol to enhance HCV screening and treatment in homeless shelters. Based on these findings, we designed and are currently evaluating an implementation strategy utilizing universal HCV screening and linkage to care in two large homeless shelters in San Francisco.

Willing to present orally: Yes

Financial Support: The project was funded by Gilead Sciences Inc. (IN-US-342-4531). Mentoring support came from National Institute on Drug Abuse, Drug Abuse Treatment/Services Training Program (T32DA007250) and the National Institute on Alcohol Abuse and Alcoholism (K24AA022523).

Name of Sponsor (If you are NOT) a CPDD Member: James L. Sorensen

Email Address of Sponsor : james.sorensen@ucsf.edu

Prefix: Dr.

First Name: J Konadu

Last Name: Fokuo

Degrees: MA MD Ph.D etc:: Ph.D

Email: konadu.fokuo@ucsf.edu

Company Affiliation: University of California, San Francisco

Mailing Address: UCSF at ZSFGH

Address 2: 1001 Potrero Ave

City: San Francisco

State: CA

Zip/Postal: 94110

Country: United States

Phone: 4152064459

ID: 526
Racial differences in opioid overdose training, naloxone possession, and naloxone administration among people who inject drugs (PWID)

Abenaa Jones, Johns Hopkins Bloomberg School of Public Health, aacheam1@jhu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Ethnic Differences

Abstract: Aim: Overdose response training and opioid overdose reversal drugs such as take-home naloxone (THN) can prevent opioid-related deaths and may be provided by syringe services programs (SSP). However, little is known about inequities in access to overdose response training and possession of overdose reversal drugs. This study evaluates the racial (Black/White) differences in overdose training, THN possession, and THN administration, among clients and non-clients of a SSP. Methods: Data were derived from a cross-sectional survey of 263 (183 SSP clients, 80 non-clients) people who inject drugs (PWID). SSP clients were recruited using targeted sampling methods from the Baltimore City SSP and through peer referral from April to November 2016. All participants were asked about a history of drug use, overdose response training, and THN possession and administration. Results: Among our sample, 61% were Black, 39% were White, 69% had received overdose training, 52% possessed THN, and 42% had ever administered THN. After adjusting for various socio-demographic factors, Black (AOR: 3.85, 95% CI: 1.88, 7.92) and White (AOR: 2.73, 95% CI: 1.29, 5.75) SSP clients were more likely than Black non-clients to have received overdose response training. White non-clients (AOR: 4.49, 95% CI: 1.50,13.47) and Black and White SSP clients (Black: AOR: 4.21, 95% CI: 2.00, 8.88; White: AOR: 3.54, 95% CI: 1.56, 8.04) were also more likely to possess THN compared to Black non-clients. No significant race and client difference in THN administration were found. Conclusion: Black PWID who did not attend the SSP were the least likely to possess THN, suggesting opportunities to increase access to harm reduction services among racial minorities. We also observed that PWID who were not SSP clients were less likely to receive educational overdose response training regardless of race, illustrating the utility of SSP programs in reaching PWID at high risk of opioid overdose.

Willing to present orally: Yes

Financial Support: T32DA007292-24 (PI: Brion Maher), amfAR, 1K01DA046234-01 (PI: Sean T. Allen), and P30AI094189

Name of Sponsor (If you are NOT) a CPDD Member: Linda Cottler

Email Address of Sponsor : lbcottler@UFL.edu

Prefix: Dr.

First Name: Abenaa

Middle Initial: A.

Last Name: Jones

Degrees: MA MD Ph.D etc:: PhD

Email: aacheam1@jhu.edu

CC Email: aacheamp@ufl.edu

Company Affiliation: Johns Hopkins Bloomberg School of Public Health

Mailing Address: 624 North Broadway

Address 2: 8th Floor, Hampton House Room

City: Baltimore

State: MD

Zip/Postal: 21205-1999

Country: United States

Phone: 301-272-4185

Fax: 410-955-9088

ID: 527
Development and initial validation of the TERM: A temporally extended reinforcer measure

Alexandra Mellis, Virginia Tech Carilion Research Institute, ammellis@vt.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Behavior

Willing to present orally: Yes

Financial Support: This work was supported by the National Institutes of Health, National Institutes on Drug Abuse award R01DA034755.

Prefix: Ms.

First Name: Alexandra

Last Name: Mellis

Degrees: MA MD Ph.D etc:: BS

Email: ammellis@vt.edu

CC Email: ammellis@vt.edu

Company Affiliation: Virginia Tech Carilion Research Institute

Mailing Address: 1412 Maple Ave SW

City: Roanoke

State: VA

Zip/Postal: 24016

Country: United States

Phone: 7033441719

Membership Year: 2018

Sponsor: Dr. Warren Bickel

Research Interests: Behavioral Pharmacology,Etiology

Date of Membership: 11.16.18 approved

ID: 528
Evaluation of a drug analysis service as a harm reduction strategy in a large scale music event in Portugal.

Helena Valente, Kosmicare Association/ Faculty of Psychology and Educational Science of the Porto University, helenamvalente@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Club/Designer Drugs

Topic: Other

Other Topic: Harm Reduction

Abstract: The Boom Festival is one of the largest transformational festivals in the world and offers full scale harm reduction services to its patrons including: harm reduction information and a drug analyis service. Drug analysis enables drug users to get their substances chemically analyzed and receive counseling. Previous research shows that most drug users, when given accurate information about their drug content, report that they will implement actions to protect their health. However, evidence of the services effectiveness would be improved through the incorporation of more robust measures of outcomes following provision of drug analytic results. At the Boom 2018 event, a quasi-experimental study was implemented. AIMS: To study the impact of drug analysis on users' risk awareness, drug-taking behaviours and adoption of safer drug use practices. METHODS: All drug checking users were surveyed at 3 different moments during the festival (pre-drug analysis/post-drug analysis/follow-up), and people who came to the drug information service but did not test their drugs were used as a control group. 346 people answered the first questionnaire, of these 290 answered the second and 159 answered the third one. Multivariate statistics namely a mixed design ANOVA with repeated measures and 2 factors and also a post hoc test. To discriminate between the differences of each studied variable in the different situations, a Bonferroni test was performed. RESULTS: Our results support the hypothesis that behavioral intention matches actual reported behavior. It was also found that a very large proportion of the service users who receive unwanted or unexpected results decide not to take the unexpected or unwanted drug (79%), From the people who got a high dose pill/ blotter 75% reported taking a smaller dose than initially planned. CONCLUSION: Our results support the hypothesis that the provision of drug checking and counseling services promote the adoption of safer drug use practices.

Willing to present orally: Yes

Financial Support: PhD. Scholarship from the Portuguese Foundation of Science and Technology

Name of Sponsor (If you are NOT) a CPDD Member: Sidney Schnoll

Email Address of Sponsor : sschnoll@pinneyassociates.com

Prefix: Ms.

First Name: Helena

Last Name: Valente

Degrees: MA MD Ph.D etc:: PhD. Candidate

Email: helenamvalente@gmail.com

Company Affiliation: Kosmicare Association/ Faculty of Psychology and Educational Science of the Porto University

Mailing Address: Rua Alfredo Allen

City: Porto

State: Porto

Zip/Postal: 4200-135

Country: Portugal

Phone: +351916470305

ID: 529
Gender differences in adolescent risk and protective factors associated with opioid misuse from 2012 to 2016

Kathryn Polak, Virginia Commonwealth University, polakkm@vcu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Sex Differences

Abstract: AIM: Gender differences have been found in the development, course, and treatment of substance use disorders, with females at increased risk for physiological/psychosocial consequences compared to males. While gender-based vulnerabilities appear to extend to those dependent on opioids, little is known about the characteristics associated with opioid misuse (OM) in male and female adolescents and whether such patterns have changed over time. The present study examined associations between OM, gender, and risk/protective factors in a school-based sample of adolescents at three timepoints (2012-2016). METHODS: Participants were 8th, 10th, and 12th graders attending central VA public schools (N = 2897 in 2012; N = 3745 in 2014; N = 3514 in 2016). Students completed a paper-and-pencil survey. Looking at lifetime OM (prescription and/or heroin), chi-square analyses compared risk/protective factors in misusers and non-misusers separately for males and females. Initial comparisons focused on depressive symptoms. RESULTS: Overall prevalence of OM was 8.3% in 2012, 7.2% in 2014, and 5.2% in 2016, with no gender differences found. At all timepoints, male and female misusers were more likely to endorse depressive feelings than non-misusers (all pCONCLUSION: Depressive symptom risk factors for OM differed based on gender, with some patterns changing over time. These shifts possibly indicate a fluctuating clinical profile, making determination of gender-based vulnerabilities among this group difficult. Additional analyses will make similar comparisons for school engagement/performance, substance use/risky behavior, prosocial involvement, family functioning, and peer influences.

Willing to present orally: Yes

Financial Support: This research was conducted with Drug Free Communities Program support (ONDCP).

Name of Sponsor (If you are NOT) a CPDD Member: Dace Svikis

Email Address of Sponsor : dssvikis@vcu.edu

Prefix: Ms.

First Name: Kathryn

Last Name: Polak

Email: polakkm@vcu.edu

Company Affiliation: Virginia Commonwealth University

Mailing Address: 1702 Careybrook Drive

City: Richmond

State: VA

Zip/Postal: 23238

Country: United States

Phone: 804-477-5091

ID: 530
Comparison of mu-opioid and alpha2-adrenergic agonists: Scheduled-control responding, rectal temperature and hot-plate latency in rats

Takato Hiranita, University of Florida, College of Pharmacy, takatohiranita@cop.ufl.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Drug Interactions

Abstract: AIM: Current FDA approved medications to treat opioid dependence include mu-opioid ligands (naltrexone, buprenorphine, and methadone) and an alpha2-adrenergic agonist (lofexidine). The extent to which drugs from each pharmacological class can be combined to enhance their overall effectiveness has not been established. The present study compared the pharmacological profiles of morphine, methadone, lofexidine, and the alpha2-adrenergic agonist clonidine, using various behavioral and physiological measurements under a within-subject design in rats. METHODS: Scheduled-control responding under a fixed-ratio ten schedule of food delivery, rectal temperature and hot-plate latency at 52°C (60-second cutoff) were measured in this order. RESULTS: The ED50 values to decrease responding for food were 10.6 mg/kg for morphine, 1.61 mg/kg for methadone, 0.15 mg/kg for lofexidine, and 0.03 mg/kg for clonidine. Morphine and methadone were 88% and 91% effective in producing hot-plate antinociception (ED50 values were 22.9 and 2.1 mg/kg, respectively), whereas lofexidine and clonidine produced no more than 29% antinociception up to doses that markedly decreased responding for food. Up to doses that decreased operant responding, morphine and methadone decreased rectal temperature by 0.38 and 1.2 °C, respectively; clonidine and lofexidine decreased temperature by 2.8 and 4.5 °C; respectively. Naltrexone (0.032 mg/kg) produced 2-fold rightward shifts in the morphine and methadone dose-response functions for all effects; the alpha2-adrenergic antagonist yohimbine (1 mg/kg) produced 3-fold rightward shifts in the lofexidine and clonidine dose-response functions for all effects. CONCLUSION: These data illustrate the behavioral specificity of the hot plate test for measuring acute antinociceptive effects of approved analgesics. The drugs appear to be producing their effects in these assays through the receptor mechanism primarily associated with their respective pharmacologies. These physiological and behavioral baselines will provide appropriate conditions for quantifying whether drug combinations produce infra-additive, additive, or supra-additive effects.

Willing to present orally: Yes

Financial Support: Supported by DA25267 and DA48353

Name of Sponsor (If you are NOT) a CPDD Member: Lance R. McMahon

Email Address of Sponsor : lance.mcmahon@cop.ufl.edu

Prefix: Dr.

First Name: Takato

Last Name: Hiranita

Email: takatohiranita@cop.ufl.edu

CC Email: victoria.taylor@cop.ufl.edu

Company Affiliation: University of Florida, College of Pharmacy

Mailing Address: 1345 Center Drive, JHMHSC Rm P2-35

Address 2: PO Box 100487

City: Gainesville

State: Florida

Zip/Postal: 32610

Country: United States

Phone: 352.294.5411

ID: 531
Association between diagnoses of chronic pain, substance use disorder and HIV-related outcomes in HIV-positive individuals

Cecile Denis, University of Pennsylvania, cdenis@pennmedicine.upenn.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: AIDS/Immune

Other Topic: Pain management

Abstract: AIM: To evaluate the association between the diagnoses of chronic pain (pain), substance use disorder (SUD) and HIV-related outcomes in HIV-positive individuals in treatment at the University of Pennsylvania Health System. METHODS: Using electronic medical record of the University of Pennsylvania Health System, we have compared sociodemographic, psychiatric diagnoses, pain medication, and HIV-related variables of clients of the Penn HIV clinics in the past 10 years. Four groups of individuals exhibiting either no pain/no SUD (n=2,015); no pain/SUD (n=255); pain/no SUD (n=919); pain + SUD (n=339) have been compared. RESULTS: The sample consisted of 3,528 HIV-positive individuals, 38.1% with a diagnosis of psychiatric disorder (mostly mood disorder), 16.8% with a substance use disorder, 35.7% with a chronic pain diagnosis. Opioids prescriptions for pain management has been common (67.6% in pain/no SUD, 87.6% in pain+SUD) and also non-opioid analgesic prescriptions (79.2% in pain/no SUD, 92.9% in pain+SUD). In HIV-positive individuals engaged in HIV care for at least 2 years, there was no difference in the percentage of individuals with a suppressed HIV viral load between the groups no pain/ no SUD (81.2%) and pain/no SUD (80.5%), however this percentage significantly decreased (c2=12.2, p CONCLUSION: About one third of HIV-positive individuals experienced chronic pain that is associated with a higher prevalence of psychiatric disorders including SUD. Opioids were commonly prescribed for pain management. A diagnosis of chronic pain and/or SUD worsened the HIV-related outcomes. These findings highlighted a potential risk for the HIV epidemic, notably in the current intertwining opioid prescription and heroin epidemics.

Willing to present orally: Yes

Financial Support: Penn Mental Health AIDS Research Center (PMHARC) Developmental Award Program

Prefix: Dr.

First Name: Cecile

Middle Initial: M

Last Name: Denis

Degrees: MA MD Ph.D etc:: Ph.D.

Email: cdenis@pennmedicine.upenn.edu

Company Affiliation: University of Pennsylvania

Mailing Address: 3535 Market Street

Address 2: Suite 500

City: Philadelphia

State: PA

Zip/Postal: 19104

Country: United States

Phone: 215-746-3806

Membership Year: 2012

Sponsor: Dr. Charles O?Brien. M.D.

ID: 532
Do generous unemployment benefits moderate deaths of despair?

Emilie Bruzelius, Mailman School of Public Health, Columbia University , eb2674@cumc.columbia.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: Aim: Previous research suggests that macroeconomic conditions, particularly unemployment rates, are associated with so called 'deaths of despair'—deaths due to drugs, alcohol and suicide. One important question is whether unemployment benefits, intended to reduce the financial and emotional distress associated with job loss, modify the relationship between unemployment rates deaths of despair at the county-level. Methods: Outcome data were obtained from the Institute for Health Metrics and Evaluation (IHME) who used estimated county, cause-specific mortality using National Center for Health Statistics (NCHS) records, 2010-2014. Unemployment rates and unemployment benefit data were obtained from the Department of Labor. The estimate of interest was the interaction between unemployment rates and unemployment duration. To assess additive interaction, we used linear regression. All models included county and year fixed effects and controlled for age, gender and racial composition, educational attainment and urbanicity. Results: Unemployment rates varied from 1.2% to 29.7%. A 1-percentage-point increase in unemployment was associated with 35.81 (95% CI: 32.39, 39.22) more drug, 20.78 (95% CI: 19.01, 22.55) more alcohol, and 45.06 more suicide (95% CI: 41.78, 48.35) deaths per 100,000 population. Incorporating unemployment rates and benefit duration, there no evidence of an interaction with respect to drug deaths (β = -7.64, 95% CI: -19.91, 4.62). However, significant interactions were observed for alcohol (β = -13.17, 95% CI: -19.91, -6.79) and suicide (β = -24.68, 95% CI: -36.48, -12.88) mortality. Conclusion: The association between county unemployment rates and deaths due to alcohol and suicide was weaker in areas with more generous unemployment insurance programs relative to places with less generous benefits. There was no evidence of interaction with respect to deaths due to drugs. While alcohol and suicide deaths may be especially sensitive to macroeconomic stress, drug deaths may be more driven by other supply side determinants such as drug availability.

Willing to present orally: Yes

Financial Support: This work was supported by grants from the U.S. Social Security Administration and NBER RRC08098400-09 (Baum) and the NIH R01DA037866 (Martins).

Name of Sponsor (If you are NOT) a CPDD Member: Silvia Martins

Email Address of Sponsor : ssm2183@cumc.columbia.edu

Prefix: Ms.

First Name: Emilie

Last Name: Bruzelius

Degrees: MA MD Ph.D etc:: MPH

Email: eb2674@cumc.columbia.edu

CC Email: emilie.bruzelius@gmail.com

Company Affiliation: Mailman School of Public Health, Columbia University

Mailing Address: 722 W. 168th St

City: New York

State: NY

Zip/Postal: 10032

Country: United States

Phone: 6177676359

ID: 533
Factors associated with recent involuntary emergency commitment due to mental illness among a cohort of people who inject drugs (PWID) in Los Angeles and San Francisco, California

Kelsey Simpson , Keck School of Medicine of USC, kasimpso@usc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Treatment

Abstract: AIM: A 5150 refers to the California law code for the temporary involuntary psychiatric commitment of individuals who present a danger to themselves or others due to signs of mental illness. In theory, emergency holds are designed to reduce harm and increase treatment access for people with mental illnesses, but the actual impact of these policies among people who inject drugs (PWID) has not yet been evaluated. Thus, the objective of our study was to identify prevalence of recent involuntary psychiatric hospitalization, and evaluate factors such as demographic (e.g. age), economic (e.g. homelessness), drug use (e.g. types of drugs used), and treatment (e.g. mental health/substance use treatment), associated with this outcome. METHODS: PWID were recruited using targeted sampling methods in Los Angeles and San Francisco, CA (N=533) during 2016-2018. Logistic regression models were calculated to assess factors associated with recent involuntary psychiatric commitment. RESULTS: Recent hospitalization due to psychiatric instability was reported by 7.1% of our sample (or 38/533). Among these, 71% were male, 32% were gay, lesbian, or bisexual, 90% were under 50 years old, 84% were homeless, 42% had been in jail in the past 6 months, and 29% received a recent mental health disorder diagnosis. Recent involuntary psychiatric commitment was associated with being under age 50 (AOR=.214, 95% CI=.074, .617), lifetime diagnosis of mental health disorder (AOR=6.604, 95% CI=2.308, 18.895), recent inpatient substance use treatment (AOR=2.760, 95% CI= 1.191, 6.395), recent heroin use (AOR=.374, 95% CI= .18, .753), marijuana use (AOR=2.297, 95% CI=1.01, 5.225), and total past-month methamphetamine use (AOR=1.003, 95% CI=1.00, 1.006). CONCLUSION: As far as we know, this is the first study to examine the effects of emergency psychiatric holds in PWID. Future research and public health efforts geared towards strengthening emergency hold procedures and improving access to treatment are warranted.

Willing to present orally: Yes

Financial Support: NIDA RO1 DA038965

Name of Sponsor (If you are NOT) a CPDD Member: Ricky Bluthenthal, Ph.D.

Email Address of Sponsor : rbluthen@usc.edu

Prefix: Ms.

First Name: Kelsey

Middle Initial: A

Last Name: Simpson

Degrees: MA MD Ph.D etc:: MA

Email: kasimpso@usc.edu

Company Affiliation: Keck School of Medicine of USC

Mailing Address: 3676 Vinton Avenue, #304

City: Los Angeles

State: CA

Zip/Postal: 90034

Country: United States

Phone: 619-408-2858

ID: 534
Ovarian hormones mediate acquisition of nicotine self-administration and accumbens glutamatergic plasticity

Jonna Leyrer-Jackson, Arizona State University, jmjack22@asu.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Nicotine/Tobacco

Topic: Sex Differences

Abstract: Background: Nicotine addiction in women remains a significant public health liability. Women report greater craving during certain phases of the menstrual cycle, and as such, pharmacotherapies for smoking may be less efficacious in women compared to men, possibly due to interactions with ovarian hormones. Mechanistically, 17-β-estradiol (E2) receptors are located on GABAergic medium spiny neurons (MSNs) within the nucleus accumbens core (NAcore). Synapses on NAcore MSNs undergo rapid, transient plasticity during nicotine seeking due to increased extracellular glutamate during nicotine seeking. We hypothesized that ovarian hormones play an important role in the acquisition of nicotine self-administration as well as NAcore glutamatergic plasticity. Aim: Determine the effects of ovarian hormones on nicotine self-administration and glutamatergic plasticity within the NAcore, measured via AMPA/NMDA current ratios. Methods: Female Sprague-Dawley rats were left intact or Ovariectomized (OVX), followed by intravenous jugular catheter implantation. Animals underwent nicotine self-administration, where the active lever yielded one infusion (0.02 mg/kg/infusion, i.v.) paired with a compound stimulus (lights + tone). A subset of OVX females received E2 supplementation for the last 4 days of self-administration. Animals were then sacrificed for electrophysiological recordings. Results: OVX females did not readily acquire nicotine self-administration compared to intact females ($p < 0$ .05). E2-treatment increased self-administration to levels similar to intact females. Additionally, deprivation of ovarian hormones due to OVX potentiated NAcore MSNs following nicotine self-administration, which was reversed by E2-treatment in OVX females (ANOVA, $p=0.06$). Conclusion: These results suggest that ovarian hormones mediate nicotine reinforcement. As well, these results indicate that following nicotine self-administration in intact females, NAcore synapses rest in a depotentiated state, which may increase nicotine use vulnerability. Finally, cessation of ovarian hormones may induce metaplasticity in NAcore synapses, which is reversed by E2-treatment. Taken together, these studies reveal control of ovarian hormones on nicotine addiction and underlying NAcore glutamatergic plasticity.

Willing to present orally: No

Financial Support: Supported by NIDA (R00 DA036569, R03 DA045881, R21 DA044479 to CDG) as well as the Arizona Alzheimers Consortium (to HBN and CDG).

Name of Sponsor (If you are NOT) a CPDD Member: Cassandra Gipson-Reichardt

Email Address of Sponsor : cgipsonr@asu.edu

Prefix: Dr.

First Name: Jonna

Middle Initial: M.

Last Name: Leyrer-Jackson

Degrees: MA MD Ph.D etc:: Ph.D.

Email: jmjack22@asu.edu

Company Affiliation: Arizona State University

Mailing Address: 16606 S 12th Pl

City: Phoenix

State: AZ

Zip/Postal: 85048

Country: United States

Phone: 9702191734

ID: 535
The provision of drug checking services in the context of the fentanyl crisis: preliminary findings on a pilot program in British Columbia, Canada

jaime arredondo, BC Centre on Substance Use (BCCSU), jaime.arredondo@bccsu.ubc.ca

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Technology Issues

Abstract: Aim: Fentanyl adulteration of the illicit opioid supply has contributed to an unprecedented overdose epidemic in North America. As an innovative harm reduction intervention, a pilot drug checking service was implemented at supervised consumption sites (SCS) in Vancouver and Surrey, Canada. The objective of the study was to compare the results of two point-of-care drug checking technologies against Quantitative Nuclear Magnetic Resonance Spectroscopy (qNMR), a gold standard confirmatory laboratory test. Methods: Two drug checking technologies, Bruker ALPHA Fourier-Transform Infrared (FTIR) spectrometer and BTNX fentanyl test strips, were implemented in tandem at SCS between October 2017 and October 2018. A subsample of these substances was sent for confirmatory analysis to Health Canada's federal Drug Analysis Service (DAS) laboratory to evaluate the presence of fentanyl using qNMR. We assessed sensitivity and specificity for both point-of-care testing methods as compared to the qNMR method. Results: Among a total sample of 3,327 tests conducted, 1,948 tested positive for fentanyl using BTNX test strips and 981 samples tested positive for fentanyl using FTIR. Among 283 samples that were sent for confirmatory qNMR testing, we found that BTNX test strips had a sensitivity of 0.95 and a specificity of 0.91. In contrast, similar analysis for FTIR tests indicated a sensitivity of 0.77 and specificity of 0.96. The percentage of positive testing for BTNX strips and FTIR increased significantly if the confirmatory qNMR results reported more than 5% and 10% fentanyl in the sample, respectively. Discussion: The provision of the two novel drug checking technologies has the potential to accurately track the presence and in some cases the amount of fentanyl in substances with a rapid and accurate technique. The high sensitivity and specificity of these technologies for detecting fentanyl may offer a new public health tool to help prevent fentanyl-related overdoses during this public health crisis.

Willing to present orally: Yes

Financial Support: Health Canada, City of Vancouver

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Seonaid Nolan

Email Address of Sponsor : seonaid.nolan@bccsu.ubc.ca

Prefix: Mr.

First Name: jaime

Last Name: arredondo

Degrees: MA MD Ph.D etc:: Ph.D.

Email: jaime.arredondo@bccsu.ubc.ca

Company Affiliation: BC Centre on Substance Use (BCCSU)

Contact Title: Postdoctoral Fellow

Mailing Address: 400-1045 Howe St

City: Vancouver

State: BC

Zip/Postal: BC V6Z 2A9

Country: Canada

Phone: 8583668599

ID: 536
Microdosing of buprenorphine/naloxone: a novel induction strategy for the treatment of opioid use disorder

Rupinder Brar, University of British Columbia, rupbrar@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim: Buprenorphine / naloxone (BUP/NX) has long been recognized as one effective treatment for opioid use disorder (OUD). The need for a patient to be in mild to moderate opioid withdrawal prior to induction to avoid precipitated withdrawal, however, can interfere with treatment initiation. Microdosing, an approach to induction where BUP/NX is initially prescribed at a very low dose (e.g., 0.5 milligrams sublingual) and slowly increased in amount and frequency over time, may provide an opportunity to overcome limitations of traditional induction approaches. Hypothesis: Adoption of a BUP/NX microdosing approach will be as efficacious as traditional BUP/NX induction. Methods: Retrospective case control study comparing 50 patients with OUD in acute and community care settings who initiated BUP/NX through microdosing and 50 patients who had conventional induction. Successful completion of BUP/NX induction of up to 8-12mg over 7 days for microinduction and 1-2 days for conventional induction is the primary outcome. Secondary outcomes will include: opioid withdrawal symptom severity, cravings and illicit opioid use during the induction process. Conclusion: Initiation and retention in opioid agonist therapy is essential to reduce opioid-related death and harm. By evaluating microdosing, the proposed study will build on existing knowledge about the use of BUP/NX, a medication known to be both safe and effective for the treatment of OUD. Results of this study may uncover a promising new approach to initiating patients on BUP/NX.

Willing to present orally: Yes

Financial Support: RB is supported by the BC Centre on Substance Use. NF and SN are both supported by the Michael Smith Foundation for Health Research.

Name of Sponsor (If you are NOT) a CPDD Member: Dr Seonaid Nolan

Email Address of Sponsor : snolan@providencehealth.bc.ca

Prefix: Dr.

First Name: Rupinder

Last Name: Brar

Degrees: MA MD Ph.D etc:: MD

Email: rupbrar@gmail.com

Company Affiliation: University of British Columbia

Mailing Address: 400-1045 Howe Street

City: Vancouver

State: BC

Zip/Postal: V6Z 2A9

Country: Canada

Phone: 17788985983

ID: 537
Changes in sleep pattern in mice during and after daily cannabinoid treatment

Carol Paronis, McLean Hospital, Harvard Medical School, cparonis@mclean.harvard.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Marijuana/Cannabinoids

Topic: Tolerance/Dependence

Abstract: Aim: Sleep disruption is one symptom that accompanies cannabinoid withdrawal in human subjects. We evaluated whether changes in sleep pattern also occur in mice following twice daily treatment with a high efficacy cannabinoid agonist, AM2389, for 5 days. Methods: Mice (n=8/group) were implanted with telemetry devices to continuously monitor locomotor activity, body temperature, and EEG (24 hr/day) for 15 days. Values were recorded two days prior to the start of the daily cannabinoid treatment, throughout the daily injection period, and for seven days following cessation of daily injections. Results: The first injection of 0.03 mg/kg AM2389 decreased body temperature by 3.9±1.2oC, these acute effects dissipated by the second injection, and after the third injection of AM2389 the mean body temperature of AM2389-treated mice did not differ from that of vehicle treated mice (p=0.43). Effects of AM2389 on locomotor activity varied according to diurnal patterns of activity. Thus, high levels of activity during the dark cycle were decreased by injection of AM2389, and remained low throughout the injection period; in contrast low levels of activity during the lights-on portion of the day were initially decreased by injection of AM2389, however these effects dissipated after the 2nd day of injections. After cessation of the daily injections, locomotor activity during the dark cycle was increased over baseline values $F(3,42) = 28.2$. Sleep patterns, i.e., percentage of time spent in paradoxical sleep (similar to REM), slow-wave sleep, or awake, were altered both during and after daily treatment with AM2389. Paradoxical sleep was reduced throughout the AM2389 dosing regimen and recovered to baseline values after stopping the daily injections. In contrast, slow-wave sleep was increased during the first day of AM2389 treatment, but was decreased after stopping daily AM2389 injections. Conclusion: These data demonstrate sleep disruption may occur in mice during spontaneous cannabinoid withdrawal.

Willing to present orally: Yes

Financial Support: NIH/NIDA DA035411, DA043700

Prefix: Dr.

First Name: Carol

Middle Initial: L

Last Name: Paronis

Email: cparonis@mclean.harvard.edu

CC Email: cparonis@mclean.harvard.edu

Company Affiliation: McLean Hospital, Harvard Medical School

Mailing Address: MS330

Address 2: 115 Mill St.

City: Belmont

State: MA

Zip/Postal: 02478

Country: United States

Phone: 6178552347

Membership Year: 1998

Travel Award: 1996

Research Interests: Behavioral Pharmacology,Pharmacology

Date of Membership: reinstated 12.19.18 approved Ellen

ID: 538
Influence of drug histories on the development of high levels of MDPV self-administration

Michelle Doyle, University of Texas Health Science Center at San Antonio, doylemr@livemail.uthscsa.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Club/Designer Drugs

Topic: Behavior

Abstract: AIM: A subset of rats that self-administer synthetic cathinones, such as 3,4-methylenedioxypyrovalerone (MDPV), develop high levels of drug intake and compulsive-like patterns of responding that may be related to the compulsive, binge-like patterns of cathinone (e.g., "bath salts") use reported in humans. Once this "high-responder" phenotype is established, it transfers to other stimulants; however, a prior history of responding for cocaine can prevent the development of this phenotype. However, the interactions between the development and endurance of the MDPV high-responder phenotype and drugs from other classes are currently unknown. The present studies aimed to evaluate whether 1) a history of self-administering fentanyl, nicotine, or ketamine prevents high levels of MDPV self-administration; and 2) the MDPV high-responder phenotype transfers to high levels of self-administration of fentanyl, nicotine, or ketamine. METHODS: Four groups of male Sprague-Dawley rats (n=10/group) were assigned to initially self-administer MDPV, fentanyl, nicotine, or ketamine under a fixed ratio (FR) 1 schedule for 10 sessions and then a FR5 schedule for 10 sessions. Rats were then allowed to self-administer cocaine (MDPV group) or MDPV (fentanyl, nicotine, and ketamine groups) for 20 additional sessions. Subsequently, the full FR5 dose response curves were generated for all five drugs (MDPV group) or for MDPV and the original self-administered drug (fentanyl, nicotine, and ketamine groups). RESULTS: These studies found that, unlike cocaine self-administration history, a history of responding for fentanyl, nicotine and ketamine was unable to prevent the transition to high levels of MDPV self-administration. Additionally, once established, the high-responder phenotype only appears to transfer to other stimulants, not drugs from different classes. CONCLUSION: These findings suggests that the neurobiological mechanisms mediating the high levels of dysregulated self-administration of MDPV and other stimulants may be different than those mediating dysregulated intake of drugs from other classes.

Willing to present orally: Yes

Financial Support: This work was supported by NIH/NIDA grant (R01 DA039146; GTC), NIDA- and NIAAA-IRPs (KCR), and NIH Predoctoral Training Program in the Neurosciences (T32 NS082145; MRD).

Prefix: Ms.

First Name: Michelle

Middle Initial: R

Last Name: Doyle

Degrees: MA MD Ph.D etc:: BS

Email: doylemr@livemail.uthscsa.edu

Company Affiliation: University of Texas Health Science Center at San Antonio

Mailing Address: 6202 John Chapman

City: San Antonio

State: TX

Zip/Postal: 78240

Country: United States

Phone: 858-776-1138

Membership Year: 2018

Sponsor: Dr. Gregory Collins

Research Interests: Behavioral Pharmacology,Pharmacology

ID: 539
Effects of co-exposure to alcohol and delta-9-tetrahydrocannibinol (THC) during adolescence on synaptic plasticity in the prelimbic cortex in rats

Asia Banks, University of Illinois Urbana-Champaign , asiab2@illinois.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Polydrug

Topic: Adolescent

Abstract: Aims: Alcohol and THC are among the most commonly abused psychoactive drugs, particularly by adolescents, and they are often used simultaneously. Previous studies have suggested that co-use of these drugs is associated with more detrimental outcomes compared to when they are consumed separately, but the evidence for this is somewhat limited and the underlying neurobiological mechanism have not been explored. Here, we used a rat model of adolescence to determine the effects of co-exposure to alcohol and THC on stimulation-induced synaptic plasticity in the prelimbic region of the prefrontal cortex (PL) and the hippocampus (HC). Methods: Male Sprague-Dawley rats (n = 12) were given access to sipper tubes containing 0.1% saccharin (SACC) or 10% ethanol in SACC for 3h/day from postnatal day (P) 30-P45. During this time rats were also given increasing doses of THC (3-10 mg/kg) or oil vehicle either by s.c. injection (Exp. 1) or orally via voluntarily ingested cookies (Exp. 2). At least 20 days later (≥ P65), rats were sacrificed for in vitro brain slice field excitatory postsynaptic potential (fEPSP) recordings. Results: In recordings from control rats, we found that high frequency stimulation (HFS) in layer 2/3 of the PL induced long term depression (LTD) in layer 5/6 of control rats ($p < 0.05$, two-way ANOVA). In contrast, there was no significant change in the fEPSPs recorded in the PL from rats exposed to ethanol or THC alone. In slices taken from rats in the ethanol plus THC group, HFS induced a long term potentiation (LTP)-like response ($p < 0.05$, two-way ANOVA). In the HC, we observed LTP following HFS and there was no effect of treatment. Conclusions: These results suggest that co-exposure to alcohol and THC disrupts synaptic plasticity in the PL in a manner that is distinct from the effects of either drug alone.

Willing to present orally: No

Financial Support: R21 045175

Name of Sponsor (If you are NOT) a CPDD Member: Joshua Gulley

Email Address of Sponsor : jgulley@illinois.edu

Prefix: Ms.

First Name: Asia

Middle Initial: R

Last Name: Banks

Email: asiab2@illinois.edu

Company Affiliation: University of Illinois Urbana-Champaign

Mailing Address: 779 Psycholgy building, MC716

Address 2: 603 E Daniel Street

City: Champaign

State: IL

Zip/Postal: 61820

Country: United States

Phone: 7089416246

ID: 540
Effects of co-exposure to alcohol and delta-9-tetrahydrocannibinol (THC) during adolescence on synaptic plasticity in the prelimbic cortex in rats.

Asia Banks, University of Illinois Urbana-Champaign , asiab2@illinois.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Polydrug

Topic: Adolescent

Abstract: Aims: Alcohol and THC are among the most commonly abused psychoactive drugs, particularly by adolescents, and they are often used simultaneously. Previous studies have suggested that co-use of these drugs is associated with more detrimental outcomes compared to when they are consumed separately, but the evidence for this is somewhat limited and the underlying neurobiological mechanism have not been explored. Here, we used a rat model of adolescence to determine the effects of co-exposure to alcohol and THC on stimulation-induced synaptic plasticity in the prelimbic region of the prefrontal cortex (PL) and the hippocampus (HC). Methods: Male Sprague-Dawley rats (n = 12) were given access to sipper tubes containing 0.1% saccharin (SACC) or 10% ethanol in SACC for 3h/day from postnatal day (P) 30-P45. During this time rats were also given increasing doses of THC (3-10 mg/kg) or oil vehicle either by s.c. injection (Exp. 1) or orally via voluntarily ingested cookies (Exp. 2). At least 20 days later (≥ P65), rats were sacrificed for in vitro brain slice field excitatory postsynaptic potential (fEPSP) recordings. Results: In recordings from control rats, we found that high frequency stimulation (HFS) in layer 2/3 of the PL induced long term depression (LTD) in layer 5/6 of control rats ($p < 0.05$, two-way ANOVA). In contrast, there was no significant change in the fEPSPs recorded in the PL from rats exposed to ethanol or THC alone. In slices taken from rats in the ethanol plus THC group, HFS induced a long term potentiation (LTP)-like response ($p < 0.05$, two-way ANOVA). In the HC, we observed LTP following HFS and there was no effect of treatment. Conclusions: These results suggest that co-exposure to alcohol and THC disrupts synaptic plasticity in the PL in a manner that is distinct from the effects of either drug alone.

Willing to present orally: No

Financial Support: R21 045175

Name of Sponsor (If you are NOT) a CPDD Member: Joshua Gulley

Email Address of Sponsor : jgulley@illinois.edu

Prefix: Ms.

First Name: Asia

Middle Initial: R

Last Name: Banks

Email: asiab2@illinois.edu

Company Affiliation: University of Illinois Urbana-Champaign

Mailing Address: 779 Psycholgy building, MC716

Address 2: 603 E Daniel Street

City: Champaign

State: IL

Zip/Postal: 61820

Country: United States

Phone: 7089416246

ID: 541
Role of NR2B function in extinction consolidation following adolescent- or adult-onset methamphetamine self-administration in male and female rats

Sara Westbrook, University of Illinois Urbana-Champaign, srwestb2@illinois.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Stimulants

Topic: Adolescent

Abstract: Aim: Previous work suggests extinction memory is relatively deficient in adolescents compared to adults. The mechanism for this is not yet clear, but studies in adult rats show that NR2B antagonists impair extinction memory during consolidation, which suggests that NR2B neurotransmission is important for extinction consolidation. Notably, NR2B-containing NMDA receptors change their functional properties during adolescent development and exposure to drugs of abuse during this time may prevent the typical ontogeny of extinction memory by disrupting the adolescent emergence of NR2B function. Methods: We investigated this hypothesis by training Sprague-Dawley rats of both sexes (n = 44) to nosepoke for an intravenous infusion of methamphetamine (0.1 mg/kg/infusion) beginning during adolescence (P41) or adulthood (P91). The first seven daily sessions were 2 h in duration (short access, ShA), while the next 14 daily sessions were 6 h (long access, LgA). Subsequently, rats received four daily 30-min extinction sessions with i.p. injections of vehicle or the NR2B antagonist, Ro25-6981 (6 mg/kg), given immediately after each session. Following another four days of 2-h extinction sessions, METH-primed reinstatement was assessed by injecting rats with 1 mg/kg METH (i.p.) prior to a final 2-h extinction session. Results: In our analyses to date (n = 33), we found that rats displayed stable METH intake during ShA, but significantly escalated their METH intake across LgA sessions ($p < 0.0001$, three-way ANOVA). Across extinction sessions, rats reduced drug-seeking behavior ($p < 0.0001$, one-way ANOVA) and a METH priming injection significantly reinstated drug-seeking ($p < 0.0001$, one-way ANOVA). Conclusion: In contrast to our hypotheses, we have yet to reveal significant effects of age, sex, or Ro25-6981 on extinction consolidation. Thus, adolescent methamphetamine self-administration does not appear to disrupt the functional emergence of NR2B-containing receptors enough to induce changes in extinction memory.

Willing to present orally: Yes

Financial Support: RB 17146 (UIUC)

Name of Sponsor (If you are NOT) a CPDD Member: Joshua Gulley

Email Address of Sponsor : jgulley@illinois.edu

Prefix: Mrs.

First Name: Sara

Middle Initial: R

Last Name: Westbrook

Degrees: MA MD Ph.D etc:: MS

Email: srwestb2@illinois.edu

CC Email: srwestb2@illinois.edu

Company Affiliation: University of Illinois Urbana-Champaign

Mailing Address: 779 Psychology Building, MC-716

Address 2: 603 E Daniel St

City: Champaign

State: IL

Zip/Postal: 61820

Country: United States

Phone: 3023837097

Sponsor: Dr. Joshua Gulley, PhD

Research Interests: Behavioral Pharmacology,Neurobiology

Date of Membership: applying for MIT 1.1.19

ID: 542
Behavioral and physiological profiles of intravenous MDPV, methylone, and caffeine in rats

Robert Seaman Jr, UT Health San Antonio, seamanr3@livemail.uthscsa.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Club/Designer Drugs

Topic: Behavior

Abstract: Aim The abuse of synthetic cathinones ("bath salts") has increased worldwide over the past decade. "Bath salts" preparations often contain at least one synthetic cathinones (e.g. 3,4-methylenedioxypyrovalerone [MDPV] or 3,4-methylenedioxy-N-methylcathinone [methylone]), in addition to other stimulants such as caffeine. Acute toxicity in bath salt users typically comprises acute psychosis, sympathomimetic effects, tachycardia, and hyperthermia. The goal of the current study was to characterize behavioral, cardiovascular, and thermoregulatory effects of MDPV, methylone, and caffeine. Methods Male Sprague Dawley rats were implanted with an intravenous catheter and a radio-telemetric probe capable of recording core body temperature, heart rate, blood pressure, and locomotor activity. Rats were habituated to the test chamber for 1-h before receiving an IV infusion of either MDPV (0.032-3.2 mg/kg), methylone (0.1-10 mg/kg), or caffeine (0.32-32 mg/kg). Recordings continued for 6 hours following drug administration. Full dose response curves were generated with rats being tested twice per week. All trials were video recorded to allow for quantification of rearing and stereotypy. Results MDPV, methylone, and caffeine produced dose-dependent increases in core body temperature (caffeine > MDPV > methylone), blood pressure (MDPV > caffeine > methylone), heart rate (methylone > MDPV > caffeine), and locomotor activity (MDPV > caffeine = methylone) relative to baseline measurements. MDPV was more potent than methylone, which was more potent than caffeine. MDPV and methylone also dose-dependent increased stereotypy. Conclusion These data show that intravenous administration of either MDPV, methylone, or caffeine alters temperature, heart rate, blood pressure, and locomotor activity in a dose-dependent manner. Although this is an important first step in understanding the toxic effects of synthetic cathinones, future studies will determine the degree to which these effects are enhanced when administered as "bath salts" mixtures.

Willing to present orally: No

Financial Support: Financial Support This work was supported by NIH/NIDA grant (R01 DA039146; GTC) and NIDA- and NIAAA-IRPs (KCR).

Name of Sponsor (If you are NOT) a CPDD Member: Gregory T Collins

Email Address of Sponsor : CollinsG@uthscsa.edu

Prefix: Mr.

First Name: Robert

Middle Initial: W

Last Name: Seaman Jr

Degrees: MA MD Ph.D etc:: MS

Email: seamanr3@livemail.uthscsa.edu

Company Affiliation: UT Health San Antonio

Mailing Address: 7703 Floyd Curl Drive

City: San Antonio

State: TX

Zip/Postal: 78229

Country: United States

Phone: 716-548-6899

ID: 543
Motivations for the initiation of injectable opioid agonist treatment: An ethnographic study of patient experiences in Vancouver, Canada

Samara Mayer, BC Centre on Substance Use, smayer@cfenet.ubc.ca

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim: Amidst the ongoing opioid overdose crisis, the scale-up of evidence-based treatment for opioid use disorder, including the use of hydromorphone and diacytylmorphine as injectable opioid assisted therapies (iOAT), has been identified as an urgent public health priority in Canada. To date, the majority of research on iOAT has involved clinical trials, and the 'real world' implementation of this treatment approach remains poorly understood. Whereas previous research has highlighted that the effective provision of oral opioid agonist treatment is highly dependent on the implementation context, we hypothesize that understanding motivations for iOAT initiation will be critical to understanding patient-centeredness in relation to this treatment approach. Methods: We recruited 29 individuals enrolling in iOAT from three community-based clinical locations in Vancouver, Canada to participate in qualitative interviews. In addition, we conducted approximately 30 hours of ethnographic fieldwork in these clinical settings. Interview transcripts and ethnographic fieldnotes were analyzed thematically in NVivo, with an emphasis on motivations for treatment initiation. Results: Findings highlight three inter-related themes regarding motivations for initiating iOAT. First, within the context of a fentanyl-adulterated drug supply, participants were driven to access a clean supply of opioids and reduce illicit opioid use to manage their overdose risks. Second, participants sought to improve their daily functioning (e.g., access stable shelter) by reducing their need to engage in criminalized activities (e.g., shop-lifting) necessary to support illicit opioid use. Third, participants expressed that initiating iOAT was necessary to reduce withdrawal episodes, while also addressing untreated and undertreated chronic pain. Conclusion: Findings highlight differing motivations for iOAT initiation and serve to inform onward implementation of this treatment approach, including the identification of target populations (e.g., people with chronic pain). Ensuring that philosophies of care and treatment goals informing iOAT care delivery are aligned with these motivations is likely to enhance patient-centeredness during treatment initiation.

Willing to present orally: Yes

Financial Support: US National Institutes of Health [Grant # R01DA044181]

Name of Sponsor (If you are NOT) a CPDD Member: Evan Wood

Email Address of Sponsor : evan.wood@bccsu.ubc.ca

Prefix: Ms.

First Name: Samara

Middle Initial: B

Last Name: Mayer

Degrees: MA MD Ph.D etc:: MPH

Email: smayer@cfenet.ubc.ca

CC Email: samara.mayer@bccsu.ubc.ca

Company Affiliation: BC Centre on Substance Use

Mailing Address: 611 Powell Street

City: Vancouver

State: BC

Zip/Postal: V5T 3L5

Country: Canada

Phone: 6043557883

ID: 544
School dropout predicts past-30 day opioid misuse among juveniles

Skye Bristol, University of Florida: STOMP Lab, cbristol@ufl.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Adolescent

Abstract: Aim: Risk of opioid-related relapse, overdose and death spike after former inmates enter their communities. Therefore, in recent years, stakeholders concerned with the opioid misuse crisis have paid closer attention to justice-involved children (JIC) to understand opioid misuse (OM) initiation and progression among justice-involved populations. Adolescents who are not enrolled in school have a higher risk of substance abuse and justice-involvement. Dropouts who were involved in the juvenile justice system may be particularly vulnerable to OM and related consequences. Methods: The study analyzed 79,960 participants from the Florida Department of Juvenile Justice (FLDJJ). The independent variable (IV) was high school dropout based on current enrollment status at first screen, and the dependent variable (DV) was past 30 day (P30D) OM at final screen. Data on 79,960 JIC from the Florida Department of Juvenile Justice (FLDJJ) were examined. To test the hypotheses, bivariate and multivariate logistic regression analyses were employed. Results: Nearly 3% of the statewide sample met criteria for P30D OM; and nearly 62% of P30D users were middle or high school dropouts. P30D users were more likely to be male, White and within the $15,000 to $34,999 household income bracket. They also were more likely to have not had a mental health diagnosis or history of depression but were more likely to have low aspirations. Compared to those who were currently enrolled or had graduated, JIC who were middle or high school dropouts at first arrest/screen were nearly twice as likely to meet criteria for P30D OM at final screen. Conclusions: These findings indicate that communities with lower rates of school completion may have a higher risk of OM. An integration of effective dropout prevention and substance abuse treatment programs among adolescents may prevent misuse, addiction and overdose in adulthood.

Willing to present orally: Yes

Financial Support: This research was supported by the University of Florida Substance Abuse Training Center in Public Health from the National Institute of Drug Abuse (NIDA) of the National Institutes of Health under award number T32DA035167 (PI: Dr. Linda B. Cottler). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institute of Health or the Florida Department of Juvenile Justice.

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Linda B. Cottler

Email Address of Sponsor : lbcottler@ufl.edu

Prefix: Mrs.

First Name: Skye

Middle Initial: C.

Last Name: Bristol

Email: cbristol@ufl.edu

CC Email: MicahJohnson3000@gmail.com

Company Affiliation: University of Florida: STOMP Lab

Mailing Address: 2004 mowry road

City: GAINESVILLE

State: FL

Zip/Postal: 32610

Country: United States

Phone: 3522739307

ID: 545
Pay for outcomes: How it might work in substance use disorder treatment

Sharon Reif, Brandeis University, Heller School for Social Policy and Management, reif@brandeis.edu

---

Abstract Category: Theoretical/Commentary

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Any drug

Topic: Policy

Abstract: AIM: In general medical care, there is a growing push to pay providers based on measures of patient outcomes rather than process measures. This approach has not yet been used much in substance use disorder (SUD) treatment. We set out to examine whether a pay-for-outcomes (P4O) approach could be feasibly applied to SUD treatment. METHODS: We reviewed several distinct literatures. (1) Economic theory papers that describe the conditions under which pay-for-outcomes is feasible in principle. (2) SUD treatment outcome papers, where the measures of these outcomes are available in administrative data systems. (3) The few papers that report on actual experiences of paying SUD treatment providers based on patient outcomes. RESULTS: The economics literature notes that when patient outcomes are strongly influenced by factors beyond provider control and risk adjustment performs poorly, P4O will increase provider financial risk. This is relevant to SUD treatment. In SUD performance measurement literature, some stakeholders focus on outcomes such as abstinence, while others argue that more 'intermediate' measures such as treatment retention should count, given the chronic nature of SUD. Good measures are available for some of these constructs, but risk adjustment still faces challenges, including control for social determinants of health. Results from past payment experiments in SUD treatment illustrate some of the concerns raised in the more conceptual literature. DISCUSSION: There are special challenges in applying P4O to SUD treatment, not all of which will be overcome by developing better measures. Paying for outcomes would require defining those outcomes more broadly than in general medical care. It may also be necessary to continue linking a sizeable portion of payment to intermediate process measures, over which providers have more control. These findings should lead to caution regarding the extent to which patient outcomes should be used to pay providers of SUD treatment.

Willing to present orally: Yes

Financial Support: P30 DA035772, the Brandeis Harvard NIDA Center to Improve System Performance of Substance Use Disorder Treatment

Name of Sponsor (If you are NOT) a CPDD Member: Constance Horgan

Email Address of Sponsor : horgan@brandeis.edu

Prefix: Dr.

First Name: Sharon

Last Name: Reif

Degrees: MA MD Ph.D etc:: Ph.D.

Email: reif@brandeis.edu

CC Email: rifkin@brandeis.edu

Company Affiliation: Brandeis University, Heller School for Social Policy and Management

Mailing Address: 415 South Street, MS 035

City: Waltham

State: MA

Zip/Postal: 02453

Country: United States

Phone: 781-736-3924

ID: 546
Differences between non-opioid and long-term opioid therapy in pain and health-related outcomes

Ainhoa Coloma-Carmona, Miguel Hernández University, ainhoa.coloma@umh.es

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aims: Prescription opioids use for chronic pain treatment has increased worldwide, but evidence of its effectiveness as a long-term therapy is scarce. Thus, the aim of this cross-sectional study was to examine differences in pain intensity, daily function and health-related variables between non-opioid users and two groups of long-term opioid users. Methods: Participants were 240 patients with chronic non-cancer pain receiving care at a Pain Unit. Patients were divided into three groups according to the treatment received at the time of assessment: (1) Non-Opioid therapy (NOP; n=95), (2) Long-term Opioid therapy for at least 90 days but less than 12 months (LOP; n=44) and (3) Extended Long-term Opioid therapy between 12 and 24 months (EOP; n=101). Demographic, medical variables (number of drugs consumed and use of health services), pain intensity and interference and anxiety-depressive symptoms were assessed. Prescription opioid use disorder was also assessed using DSM-5 criteria. Data were analyzed using chi-square test and one-way ANOVA followed by post-hoc tests. Results: Highest percentage of pain relief was found (F=13.401, p

Willing to present orally: No

Financial Support: This work was supported by the call for aid for conducting research to improve the care of the chronically ill complex patient and those susceptible to palliative care (2013) of the Department of Health of the Generalitat Valenciana, Spain [ref. PCC18/13].

Name of Sponsor (If you are NOT) a CPDD Member: Roberto Secades Villa

Email Address of Sponsor : secades@uniovi.es

Prefix: Mrs.

First Name: Ainhoa

Last Name: Coloma-Carmona

Degrees: MA MD Ph.D etc:: MA

Email: ainhoa.coloma@umh.es

Company Affiliation: Miguel Hernández University

Mailing Address: Avenida Universidad s/n

Address 2: Edificio Altamira

City: Elche

State: Alicante

Zip/Postal: 03202

Country: Spain

Phone: +34 678904118

ID: 547
Characteristics of patients with severe mental disorders who accept and decline a quitline intervention

Cristina Martínez, Catalan Institute of Oncology, cmartinez@iconcologia.net

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Dependence

Abstract: Aim: Up to 75% of inpatients with mental disorders smoke. In Spain, smoking is banned indoors and outdoors in hospitals including psychiatric units. The "061 QuitMental Study" is a randomized clinical trial (RCT) designed to test an innovative quitline for smokers with severe mental disorders that are discharged from hospitals. The study, which will finish in May 2019, examines acceptability of the intervention, and compares patient characteristics between those who accept versus decline the intervention. Methods: Smokers are informed, during their hospital stay, about the possibility of participating in this single-blinded RCT, with 2:1 assignment for Intervention:Control conditions. Intervention participants receive telephone assistance to quit smoking (psychological support and pharmacotherapy advice) proactively for 12 months, while Control participants receive brief advice only. Eligible participants are smokers, 18-76 years old, with a telephone. Several variables are compared between those who accepted and declined such as demographic characteristics, mental disorder and, tobacco use behaviors (e.g., number of cigarettes per day, nicotine dependence, past year quit attempts, abstinence, and nicotine replacement therapy (NRT) use during hospitalization. Results: During the first year, 429 smokers met the inclusion criteria. Eligible participants were equally distributed by sex, with a mean age of 43.7 years, 41% had a diagnosis of schizophrenia. 38.0% presented high nicotine dependence, 54.4% had a past year quit attempt, 12.5% were abstinent and, 66.4% received NRT during hospitalization. 54.8% agreed to participate, and there were no differences in participation rate by sex, age, or mental disorder. Sites difference in participation rate were observed (lowest: 30.2% vs highest: 81.1%). Those who accepted were more likely to have had past year quit attempts (63.87% vs 36.13%; $p < 0$ .001). Discussion: Patients that had past year quit attempts were more likely to participate in this post-hospitalization quitline intervention. Site differences should be examined to improve acceptance rates in some locations. Clinicaltrials.gov_ NCT03230955

Willing to present orally: Yes

Financial Support: This study has been funded by the Instituto Carlos III (ISCIII) (Grant: PI15/00875) Fondo Europeo de Desarrollo Regional (FEDER) "Una manera de hacer Europa".

Name of Sponsor (If you are NOT) a CPDD Member: Instituto Carlos III (ISCIII) (Grant: PI15/00875) Fondo Europeo de Desarrollo Regional (FEDER)

Email Address of Sponsor : iorgaz@isciii.es

Prefix: Dr.

First Name: Cristina

Last Name: Martínez

Degrees: MA MD Ph.D etc:: RN, BA, Ph.D

Email: cmartinez@iconcologia.net

CC Email: cmartinez2@gmail.com

Company Affiliation: Catalan Institute of Oncology

Mailing Address: Av. Granvia 199-203

Address 2: Unidad de Control de Tabaco

City: Hospitalet

State: Barcelona

Zip/Postal: 08098

Country: Spain

Phone: 0034666985133

ID: 548
Pharmacotherapies for cocaine use disorder: A systematic review

Brian Chan, Oregon Health & Science University, chanbri@ohsu.edu

---

Abstract Category: Literature Review

Abstract Detail: Human

Drug Category: Stimulants

Topic: Treatment

Abstract: AIM Cocaine use disorder (CUD) presents an ongoing public health problem globally. Currently, there are no accepted FDA-approved pharmacotherapies for CUD. We conducted a systematic review of randomized controlled trials (RCT) of pharmacotherapies for CUD for outcomes of abstinence, reduction in use, and treatment retention. METHODS We searched multiple data sources from database (MEDLINE, CINAHL, and Cochrane Library) inception through November 2017 using pre-specified inclusion criteria. We included RCTs that compared pharmacotherapies against each other, placebo, usual care, or psychotherapy in adults with CUD; when available, we included evidence from existing systematic reviews. We defined abstinence as 2 or more weeks with negative urine drug screens (UDS), reduction in use (decreased cocaine positive UDS percentage), and retention rates for trials. When data were available, we conducted meta-analyses. We assessed the risk of bias of each study as low, high or unclear using a Cochrane Collaboration tool. RESULTS We identified 7 systematic reviews and 47 RCTs. We found moderate to high strength evidence that antidepressants do not reduce use or improve treatment retention, though they were non-significantly associated with higher rates of abstinence (10 RCTs N=1226 RR 1.27[95% CI 0.99-1.63]). We found low strength evidence that bupropion (2 RCTs N=176 RR 1.63[95% CI 1.02-2.59), psychostimulants (existing SR RR 1.36(95% CI 1.05-1.77), and topiramate (2 RCT N=206 RR 2.56[95% CI 1.39-4.73]) may improve abstinence. We found moderate strength evidence that antipsychotics improve treatment retention (1 existing SR of 8 RCTs N=397 RR 0.75[95% CI 0.57-0.97]). CONCLUSIONS Most pharmacotherapies trialed for CUD are not effective; bupropion, psychostimulants and topiramate may improve abstinence, and antipsychotics may improve retention. It is possible that the lack of findings was due to insufficient power to detect differences due to poor retention and non-standardized outcomes. Future trials of medications with behavioral interventions may be warranted to address this.

Willing to present orally: Yes

Financial Support: Dr. Chan's time was supported by AHRQ PCOR K12 (K12HS022981)

Name of Sponsor (If you are NOT) a CPDD Member: Philip Todd Korthuis

Email Address of Sponsor : korthuis@ohsu.edu

Prefix: Dr.

First Name: Brian

Last Name: Chan

Degrees: MA MD Ph.D etc:: MD MPH

Email: chanbri@ohsu.edu

CC Email: chanbri@ohsu.edu

Company Affiliation: Oregon Health & Science University

Mailing Address: 3181 SW Sam Jackson Park Road

Address 2: L-475

City: Portland

State: OR

Zip/Postal: 97239

Country: United States

Phone: 8589229801

ID: 549
Influence of a low-barrier buprenorphine treatment program on illicit drug use and quality of life metrics among predominantly homeless, needle exchange clients in Seattle

Holly Whitney, Public Health- Seattle & King County, n-hwhitney@kingcounty.gov

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Treatment

Abstract: AIM: The health department operates a low-barrier buprenorphine program ("Bupe Pathways") that is co-located with a needle exchange and primary care clinic in Seattle, Washington. The low-barrier approach aims to connect clients to care immediately and does not exclude people with ongoing illicit or polysubstance use. The majority of patients are homeless. We conducted a survey that documented patient satisfaction and the program's influence on illicit drug use and quality of life metrics. METHODS: In summer 2018, we recruited (via clinic referrals, phone calls, and mail) current and former Bupe Pathways patients to complete an interviewer-administered, 45-minute survey. We coded responses to open-ended questions for themes and summarized closed-ended questions with descriptive statistics. RESULTS: Of 190 patients in the sampling frame, 152 had contact information and 84 were interviewed. Of these, 57% were current patients, 31% were no longer active in the program and 12% had transferred to another clinic. Twenty percent of surveyed patients reported that incarceration interrupted their treatment, though most (94%) returned to Bupe Pathways post-release. Participants noted improvements in general health status (55%), relationships (51%), medical care source (30%), housing status (20%), and employment status (10%). Participants also reported reductions in substance use, with 67%, 45%, and 14% indicating decreased use of opioids, stimulants, and benzodiazepines, respectively, following enrollment in Bupe Pathways. Positive changes were more commonly reported by patients with greater retention. Open-ended questions regarding factors that facilitated engagement often elicited comments about the low-barrier nature of the program, specifically flexible scheduling and tolerance of ongoing other substance use. Open-ended questions regarding challenges prompted several surveyed participants to comment that the proximity of the needle exchange was "triggering" for relapse. CONCLUSION: Patients of this needle exchange affiliated, low-barrier, buprenorphine program commonly reported reductions in drug use and improvements in quality of life metrics.

Willing to present orally: Yes

Financial Support: Funding was provided by the Centers for Disease Control and Prevention: Research on Prescription Opioid Use, Opioid Prescribing, and Associated Heroin Risk (RFA-CE-16-003). This study was supported in part by an appointment to the Applied Epidemiology Fellowship Program administered by the Council of State and Territorial Epidemiologists (CSTE) and funded by the Centers for Disease Control and Prevention (CDC) Cooperative Agreement Number 1NU38OT000297-01-00.

Name of Sponsor (If you are NOT) a CPDD Member: Caleb Banta-Green

Email Address of Sponsor : calebbg@uw.edu

Prefix: Ms.

First Name: Holly

Last Name: Whitney

Email: n-hwhitney@kingcounty.gov

Company Affiliation: Public Health- Seattle & King County

Mailing Address: 401 5th Ave

Address 2: Suite 1250

City: Seattle

State: WA

Zip/Postal: 98104

Country: United States

Phone: 206-263-1874

ID: 550
Place matters: The role of population size and urbanicity in prenatal tobacco and cannabis use in the US

Qiana Brown, School of Social Work; and Department of Urban-Global Public Health, School of Public Health, Rutgers, The State University of New Jersey, qbrown@jhofi.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Other Drug Category: Cannabis

Topic: Epidemiology

Other Topic: Prenatal substance use

Abstract: Aims: Where people live (i.e., place) pervasively influences behaviors including substance use. However, the role of place in prenatal substance use has been under-examined. We examined associations between population size, urbanicity, and prenatal tobacco and cannabis use in the US. Methods: This cross-sectional study used data on pregnant women ages 12-44 (N=1,504) from the 2015-2016 US National Survey on Drug Use and Health. Weighted proportions and logistic regressions (adjusted for age, race/ethnicity, poverty, education, and trimester) were used to examine the association between place, and past-month tobacco and cannabis use. Place was categorized as: Large Metropolitan Statistical Areas (MSA: population size of at least 1 million); Small MSAs (population size less than 1 million); Nonmetropolitan counties (e.g., less urbanized, rural counties). Results: Among pregnant women, 12.3% used tobacco and 4.2% used cannabis in the past month. Prenatal tobacco use was higher in nonmetropolitan counties (22.4%), followed by small MSAs (17.8%) and much lower in large MSAs (6.8%) (p

Willing to present orally: Yes

Financial Support: None

Prefix: Dr.

First Name: Qiana

Middle Initial: L.

Last Name: Brown

Degrees: MA MD Ph.D etc:: Ph.D, MPH, MSW

Email: qbrown@jhofi.com

CC Email: qiana.brown@rutgers.edu

Company Affiliation: School of Social Work; and Department of Urban-Global Public Health, School of Public Health, Rutgers, The State University of New Jersey

Mailing Address: 390 George Street

Address 2: Suite 607B

City: New Brunswick

State: NJ

Zip/Postal: 08901

Country: United States

Phone: 551-208-4187

Membership Year: 2009

Sponsor: William Latimer

Travel Award: 2017

Research Interests: Epidemiology,Prevention

Date of Membership: W&G 2016

ID: 551
A novel metabotropic glutamate receptor 2 positive allosteric modulator, SBI-0069330, attenuates nicotine taking and nicotine seeking in rats

Xia Li, University of California San Diego, x9li@ucsd.edu

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Nicotine/Tobacco

Topic: Treatment

Abstract: Aim: Glutamate neurotransmission plays a critical role in nicotine and other drug addiction. In support of this notion, we and others have demonstrated that activation of metabotropic glutamate subtype 2 (mGlu2) receptors inhibit nicotine-taking and nicotine-seeking behaviors in rodents. The present study describes the synthesis of a new selective mGlu2 receptor positive allosteric modulator (PAM), and the assessment of its effects in rat models of nicotine dependence. Methods: A potent and selective mGlu2 receptor PAM, SBI-0069330, with favorable absorption, distribution, metabolism and excretion (ADME) properties was synthesized. The effects of this novel compound on nicotine-taking and nicotine-seeking behavior were assessed in rats. Results: In vitro studies demonstrated that SBI-0069330 is a potent and selective mGlu2 receptor PAM. This compound exhibits promising pharmacokinetic properties in rats including excellent oral bioavailability, long half-life and acceptable brain penetration. In vivo studies found that acute or chronic treatment with SBI-0069330 (40, 60 mg/kg) significantly decreased intravenous nicotine, but not food, self-administration in rats. SBI-0069330 also significantly attenuated cue-induced reinstatement of nicotine-seeking behavior in rats. Conclusions: SBI-0069330, a novel selective mGlu2 receptor PAM, attenuates the reinforcing effects of nicotine and the motivational impact of cues that were previously associated with nicotine administration in rats. The present results provide further evidence that mGlu2 receptor PAMs may be useful in the treatment of tobacco dependence in humans.

Willing to present orally: No

Financial Support: National Institute on Drug Abuse (NIDA) grant award #U01 DA041731; N. Cosford, Principal Investigator

Prefix: Dr.

First Name: Xia

Last Name: Li

Email: x9li@ucsd.edu

Company Affiliation: University of California San Diego

Mailing Address: 9500 Gilman Dr

Address 2: mailbox 0603

City: La Jolla

State: CA

Zip/Postal: 92093-0603

Country: United States

Phone: 8585341503

ID: 552
Netflix and pill: Antisocial romantic partners linked to past-30 day opioid misuse

Sashawn Lawrence, University of Florida, sashawn@ufl.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Adolescent

Abstract: Aim: Drug overdose related death among adolescents have increased in recent years, and evidence suggests that justice-involved children (JIC) have higher risks. Over 5,000 deaths were reported in 2015 and over half were related to opioid overdoses. These data have provoked interests in the predictors of opioid misuse (OM) initiation among JIC. By the age of 16, many adolescent become involved in romantic relationships, which play a major role in identity formation. Having an antisocial romantic partners may increase risk of past-30 day (P30D) OM. Methods: Data on 79,960 JIC from the Florida Department of Juvenile Justice (FLDJJ) were examined using logistic regression. The romantic partner measure was a three-item categorical variable: not romantically involved, romantically involved with a prosocial partner and romantically involved with an antisocial partner. OM was operationalized by meeting FLDJJ criteria for P30D illicit or nonmedical OM at the final FLDJJ screen. Results: Similar to other national statistics, nearly 3% of the total sample met criteria for P30D OM. Strikingly, 28% of P30D users had an antisocial romantic partner while only 10% of the total sample had antisocial romantic partners. Compared to those who were not involved in a romantic relationship, JIC who had antisocial romantic partners at first screen were 2.48 times as likely to meet criteria for P30D OM at final screen while adjusting for covariates. Surprisingly, JIC in prosocial relationships were 1.3 times as likely to meet criteria for P30D OM as those who were not involved in a romantic relationship. However, JIC with antisocial partners were twice as likely as those with prosocial partners to meet criteria for past-30 day OM. Conclusions: Antisocial romantic partners is an important risk factor for adolescent OM. Stakeholders should collaborate with youth to develop strategies to foster prosocial romantic relationships and social networks among high-risk youth.

Willing to present orally: Yes

Financial Support: This research was supported by the University of Florida Substance Abuse Training Center in Public Health from the National Institute of Drug Abuse (NIDA) of the National Institutes of Health under award number T32DA035167 (PI: Dr. Linda B. Cottler). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institute of Health or the Florida Department of Juvenile Justice.

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Linda B. Cottler

Email Address of Sponsor : lbcottler@ufl.edu

Prefix: Ms.

First Name: Sashawn

Middle Initial: Elijah

Last Name: Lawrence

Email: sashawn@ufl.edu

CC Email: MicahJohnson3000@gmail.com

Company Affiliation: University of Florida

Mailing Address: 15027 NW 31ST TER

City: GAINESVILLE

State: FL

Zip/Postal: 32610

Country: United States

Phone: 352273-9307

ID: 553
Cluster B personality disorder symptoms are indirectly associated with hazardous drinking through positive alcohol expectancies

Casey Guillot, University of North Texas, casey.guillot@unt.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Behavior

Abstract: Aims: Alcohol use disorder (AUD) frequently co-occurs with the Cluster B personality disorders, especially with antisocial personality disorder (ASPD) and borderline personality disorder (BPD). In addition, prior research has evidenced that individuals with Cluster B personality disorder symptoms (e.g., ASPD and BPD symptoms) often engage in maladaptive behaviors, such as excessive drinking, in an effort to improve their mood. Therefore, we hypothesized that ASPD and BPD symptoms would be indirectly associated with more hazardous drinking through stronger beliefs (i.e., expectancies) about the positive cognitive, affective, and behavioral effects of alcohol (e.g., reduction of negative affect and enhancement of pleasurable experiences), whereas no such indirect association would be evidenced through negative alcohol expectancies (e.g., carelessness or cognitive or physical impairments). Methods: In a cross-sectional design, healthy social drinkers recruited from the community (N = 200, 51% female, M age = 26 years) completed self-report measures of demographic characteristics, ASPD and BPD symptoms, positive and negative alcohol expectancies, and hazardous drinking. Results: Controlling for gender and marital status, both ASPD and BPD symptoms were associated with higher levels of hazardous drinking (β = .27, p β = .26, p < .001, respectively). Additionally, ASPD symptoms were indirectly associated with more hazardous drinking through greater positive alcohol expectancies (β [95% CI] = .073 [.031 - .133]), and BPD symptoms were also indirectly associated with more hazardous drinking through greater positive alcohol expectancies (β [95% CI] = .094 [.050 - .159]). Neither of the indirect associations through negative alcohol expectancies were statistically significant. Conclusions: These findings suggest that positive alcohol expectancies may play a role in the development and maintenance of maladaptive drinking in individuals with ASPD or BPD symptomatology. Hence, interventions that aim to reduce positive alcohol expectancies may be useful in the prevention and treatment of AUD in individuals with ASPD or BPD.

Willing to present orally: No

Financial Support: NIAAA Grant R21-AA14025

Prefix: Dr.

First Name: Casey

Middle Initial: R.

Last Name: Guillot

Degrees: MA MD Ph.D etc:: PhD

Email: casey.guillot@unt.edu

Company Affiliation: University of North Texas

Contact Title: Assistant Professor

Mailing Address: Department of Psychology

Address 2: 1155 Union Circle #311280

City: Denton

State: TX

Zip/Postal: 76203-5017

Country: United States

Phone: 940-369-8426

Membership Year: 2014

Sponsor: Dr. Adam Leventhal, Ph.D. and Jennifer Tidey

Travel Award: 2017

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 554
Perceived discrimination and substance use among Adolescents: examining the moderating effect of distress tolerance and negative urgency

Alia Rowe, Indiana University Purdue University Indianapolis, alirowe@umail.iu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Other Drug Category: alcohol

Topic: Adolescent

Abstract: AIM Perceived discrimination is associated with increased substance use vulnerability among adolescent populations. However, less is known as to what individual level factors may modulate risk. The current study examined two emotion-based personality traits – negative urgency and distress tolerance – as potential moderators in the relationship between perceived discrimination and substance use. We hypothesized that high distress tolerance would decrease risk, while high negative urgency would increase risk for substance use as a consequence of discrimination. METHODS 105 youth ages 12-18 (68.6% male; 56.2% African American) provided data on school-based perceived discrimination, past year alcohol and marijuana use, negative urgency, and distress tolerance. Hierarchical regression analysis and the PROCESS moderation macro were used to examine and probe the moderating effect of the personality traits on the relationship between discrimination and substance use. RESULTS Neither perceived discrimination nor the personality traits predicted past year alcohol use. For past year marijuana use, a significant direct effect was observed for both perceived discrimination ($b = .22$, $p = .029$) and distress tolerance ($b = .26$, $p = .009$). Distress tolerance also moderated the relationship between discrimination and marijuana use ($b = .21$, $p = .032$). CONCLUSION Distress tolerance was found to moderate the effect of discrimination on marijuana use, however the effect was in the opposite direction as expected. Substance use risk was highest among youth who reported moderate and high levels of distress tolerance. It is speculated that the counterintuitive finding is due to the racial/ethnic composition of the sample, suggesting that distress tolerance may operate differently among minority youth than what has been found among predominantly non-minority samples. Further research is needed on the interactive effect of individual level factors and discrimination on substance use outcomes, particularly for minority youth.

Willing to present orally: Yes

Financial Support: R25DA035163, P30DA027827, and K01DA043654 to Tamika Zapolski

Name of Sponsor (If you are NOT) a CPDD Member: James Sorensen

Email Address of Sponsor : James.Sorensen@ucsf.edu

Prefix: Ms.

First Name: Alia

Last Name: Rowe

Degrees: MA MD Ph.D etc:: MS

Email: alirowe@umail.iu.edu

CC Email: alirowe@iu.edu

Company Affiliation: Indiana University Purdue University Indianapolis

Mailing Address: 402 N Blackford St, LD 161

City: Indianapolis

State: IN

Zip/Postal: 46202

Country: United States

Phone: 6787735547

ID: 555
The association of combined marijuana and alcohol on subjective memory complaints among persons living with HIV

Verlin Joseph, University of Florida, verlinwjoseph@ufl.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Behavior

Abstract: Aim: Previous studies have identified marijuana and alcohol use as significant contributors to cognitive deficiencies. While marijuana and alcohol are commonly used together, studies assessing their effects on cognition generally don't adjust for current poly-substance use. Thus, the goal of this analysis was to assess the combined effects of current marijuana and alcohol use on memory. Methods: HIV+ adults (N=706) recruited from community health centers across Florida completed questionnaires collecting demographics, HIV clinical outcomes, mental health, and substance use information. Memory was assessed using a modified 5-item subjective cognitive complaints scale (Cronbach $\alpha = 0.85$), with 6 response options (from "never" = 0 to "very often" = 5[FA1]). Additional covariates including demographics, education, and PTSD were included in the final model. Participants endorsing using marijuana during the past 3 months and no alcohol use was classified as marijuana only (MO). Participants endorsing drinking alcohol and no marijuana use were classified as alcohol only (AO). While participants endorsing both marijuana and alcohol use during the past month were classified as co-substance users (CU). A generalized linear regression analysis was utilized to the association between memory and selected covariates. Results: Overall, 84.0% of participants endorsed at least one symptom of subjective[FA2] cognitive complaints, with a mean score 5.31 (SD=4.39). Among our sample 5.0% were MO, 40.7% were AO, 31.7% were CU, and 22.7% were non-users. After adjusting for all covariates, age ($\beta = 0.040$), being female ($\beta = 0.791$), being non-Hispanic Black ($\beta = -0.796$), co-substance use ($\beta = 1.063$), and depression ($\beta = 3.789$) were associated with memory scores. Conclusion: This is one of a few studies targeting the relationship between current poly-substance use and memory. Our analysis noted current marijuana and alcohol users performed worse on memory compared to non-users. Future studies examining the relationship between memory and substance use should further investigate polysubstance use.

Willing to present orally: Yes

Financial Support: NIAAA 1U24AA022002-01

Prefix: Mr.

First Name: Verlin

Last Name: Joseph

Email: verlinwjoseph@ufl.edu

CC Email: deasterling@ufl.edu

Company Affiliation: University of Florida

Mailing Address: 2915 SW 13TH ST APT 70

City: Gainesville

State: FL

Zip/Postal: 32608

Country: United States

Phone: 9143932240

ID: 556
Pharmacotherapies for methamphetamine/amphetamine use disorder: A systematic review

Brian Chan, Oregon Health & Science University, chanbri@ohsu.edu

---

Abstract Category: Literature Review

Abstract Detail: Human

Drug Category: Stimulants

Topic: Treatment

Abstract: AIM Addiction to methamphetamine/amphetamine (MA/A) is a serious public health problem that is on the rise. Currently, there are no FDA-approved pharmacotherapies for MA/A use disorder. We conducted a systematic review of randomized controlled trials (RCTs) for treatment of MA/A disorder for outcomes of abstinence, reduction in use, and retention in treatment. METHODS We searched multiple data sources from database (MEDLINE, CINAHL, and Cochrane Library) inception through November 2017 using pre-specified inclusion criteria. We included RCTs that compared pharmacological interventions against each other, placebo, usual care, or psychotherapy in adults with MA/A; when available, we included evidence from existing systematic reviews (SR). We defined abstinence as 2 or more weeks with negative urine drug screens (UDS), reduction in use (decreased MA/A positive UDS percentage), and retention rates for trials. When data were available, we conducted meta-analyses. Multiple reviewers independently assessed the risk of bias of each study as low, high or unclear using a tool developed by the Cochrane Collaboration. RESULTS We identified 14 RCTs and 1 SR. Many studies had high or unclear risk of bias. We found moderate strength evidence that antidepressants (abstinence: 4 RCTs, N=590; RR=0.92, 95% CI [0.63 - 1.34], P=0.83, retention: 7 RCTs N=831; RR=0.98, 95% CI [0.89 - 1.07], P=0.66) were ineffective. Although we found no evidence of benefit for psychostimulants, there was low strength evidence from the existing SR that methylphenidate (based on 3 of 4 trials in the SR) may reduce MA/A use. CONCLUSIONS Most pharmacotherapies reviewed were ineffective in treating MA/A use disorder. There were few trials of any medication, with low sample sizes, and the lack of findings may be due to insufficient power to detect differences. Novel pharmacotherapies specific to the neurobiology of MA/A need to be developed to supplement existing behavioral interventions for this emerging epidemic.

Willing to present orally: Yes

Financial Support: Dr. Chan’s time was supported by AHRQ PCOR K12 (K12HS022981)

Name of Sponsor (If you are NOT) a CPDD Member: Philip Todd Korthuis

Email Address of Sponsor : korthuis@ohsu.edu

Prefix: Dr.

First Name: Brian

Last Name: Chan

Degrees: MA MD Ph.D etc:: MD MPH

Email: chanbri@ohsu.edu

CC Email: chanbri@ohsu.edu

Company Affiliation: Oregon Health & Science University

Mailing Address: 3181 SW Sam Jackson Park Road

Address 2: L-475

City: Portland

State: OR

Zip/Postal: 97239

Country: United States

Phone: 8589229801

ID: 557
Legalization of recreational cannabis in Canada: Local media analysis

James Sorensen, University of California San Francisco, james.sorensen@ucsf.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Policy

Abstract: Aims: In Autumn 2018 Canada became the second country to legalize recreational cannabis nation-wide. To understand the extent and nature of media coverage we assessed article coverage in the daily newspaper of Calgary, Alberta, Canada's third-largest city. Methods: We reviewed the home-delivery edition of the Calgary Herald, the largest-circulation newspaper (published 6 days weekly). Dates spanned the first month of legalization in 2018 (October17 - November 16). Articles, editorials, letters to editor, and public announcements were included if they referred to cannabis-related topics . Articles included both local stories and items from national media (such as the National and Financial Post) that were in the Herald. We itemized articles concerning ethical and legal issues, which were of special interest. Results: In the first month of legalization (31 days) there were 87 items related to legalization of cannabis. These included (in Weeks 1, 2, 3, and 4) 37, 22, 8, and 14 items respectively, plus 6 items in the final 3 days. For the 27 days of publication the newspaper averaged 3.2 articles per issue. Items were not all local: 7 items (8%) were in the Financial Post and 7 (8%) were in the National Post sections of the local paper. 22 items directly addressed issues that were legal (e.g. restrictions on travel to U.S., what the law decriminalized) or ethical (e.g. moral objections or endorsements). Other topics varied widely, (e.g. crowded opening of cannabis outlets, cannabis stocks and investments, supply shortages). Conclusions: The nationwide implementation of legalizing cannabis was associated with significant coverage in this single large-city newspaper, a phenomenon that appeared to occur across the country. Study limitations include single news outlet, brief period of data collection, and rudimentary methods of analysis. Review of newspaper records to identify ethical issues may be innovative in addressing potentially controversial topics.

Willing to present orally: Yes

Financial Support: Financial Support: Fulbright-Canada Fellowship, NIH T32DA07250, U01DA015815, R25DA028567 R25DA035163

Prefix: Dr.

First Name: James

Middle Initial: L.

Last Name: Sorensen

Degrees: MA MD Ph.D etc:: Ph.D.

Email: james.sorensen@ucsf.edu

CC Email: jsorensen.sf@gmail.com

Company Affiliation: University of California San Francisco

Contact Title: Adjunct Professor of Psychiatry

Mailing Address: 2229 17th Ave

City: San Francisco

State: CA

Zip/Postal: 94116

Country: United States

Phone: 4156617345

Fax: (415) 206-5233

Membership Year: 1992

Sponsor: G.E. Woody & E.C. Senay

Research Interests: Policy Treatment Etiology

ID: 558
Efforts can reduce selection bias by strengthening parental consent for child participation in a school-based drug prevention program

YA-LI YANG, National Taiwan University Children and Family Research Center, yaliyangcfrc@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: school-based drug prevention program

Topic: Adolescent

Abstract: AIM Participation in school-based drug intervention programs by children under 18 requires parental consent. However, parents may be unfamiliar with these programs or wary of these sensitive subjects and thus discourage their children from participating. Tremendous efforts are required to gain parental consent for minors (Nakkash et al., 2014). This study aims to explore whether providing additional information to school staff and parents can increase parental consent as well as examine if there are differences between consent and non-consent groups in a Taiwanese elementary school drug prevention program. METHODS Fifth-graders across 39 public elementary schools were invited to a randomized controlled trial of a drug prevention program. In the first round, only 947 (38.9%) parents signed a consent form. It is found absent or negative informed consent is positively linked to the background and substance use of disadvantaged families (Chen et al., 2018). To reduce selection bias, the study's aim and procedures were adjusted with specific information pertaining benefits associated with our drug education. Evidence and theory supporting the program were presented to principals and faculty. Consent forms were then distributed once more to parents by teachers. Of 2585 forms returned, consent and non-consent were examined using chi-square and t-test on categorical and continuous socio-demographic variables. RESULTS Over 11.6% of students did not submit the form (n=300). Those who did with parental consent comprise 48.8%. There is no significant difference in gender ($p = 0.91$), tobacco [$t(15)=0.29$, $p=0.91$] & betel nut initiation [$t(10)=-0.18$, $p = 0.27$], hit by parents ($p = 0.82$), and social trust [$t(2140)=0.42$, $p = 0.95$] between consent and non-consent groups. Self-stated reports between two groups yielded no significant differences. CONCLUSION Detailed information and evidence substantiating program benefits on sensitive issues can bolster parental consent and reduce selection bias.

Willing to present orally: Yes

Financial Support: CTBC Charity Foundation, Taiwan

Name of Sponsor (If you are NOT) a CPDD Member: Chuan-Yu Chen

Email Address of Sponsor : chuanychen@gmail.com, chuanychen@ym.edu.tw

Prefix: Ms.

First Name: YA-LI

Last Name: YANG

Email: yaliyangcfrc@gmail.com

CC Email: yaliyang1214@gmail.com

Company Affiliation: National Taiwan University Children and Family Research Center

Mailing Address: No. 1, Sec. 4, Roosevelt Rd.

City: Taipei

State: Taiwan

Zip/Postal: 106

Country: Taiwan

Phone: +886-2-233661255

ID: 559
The late positive potential (LPP) as a marker of motivated attention in cocaine use disorder (CUD)

Heather Soder, University of Texas Health Science Center at Houston, heather.e.soder@uth.tmc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Neurobiology

Abstract: AIM: Contingency management (CM) is a treatment for cocaine use disorder (CUD), yet only about one third of patients achieve abstinence. Given that CM relies on the individual's ability to attribute value to non-drug rewards, one potential mechanism underlying CM outcomes includes motivated attention to drug-associated versus non-drug rewards. We used the Late Positive Potential (LPP), an event-related potential component reflecting the extent to which a visual stimulus engages motivational brain circuits, to measure brain responses to drug-related and emotional stimuli in a CUD sample. This proof-of-concept study aimed to demonstrate feasibility of utilizing this paradigm to predict CM response for CUD. METHODS: Individuals with CUD were enrolled in an ongoing clinical trial employing CM for the first four weeks of treatment. Electroencephalogram data was collected prior to treatment. Participants viewed and provided valence and arousal ratings of pleasant, unpleasant, cocaine, and neutral images. Preliminary results are presented from an initial cohort of subjects (n=8). RESULTS: The pictures elicited an LPP over central-parietal electrodes around 400-800ms, as expected. Cocaine images elicited the most positive LPP, followed by unpleasant, pleasant, and neutral, with cocaine marginally significant compared to neutral ($t(7) = 2.14$, $p = .07$). Cocaine images were rated as more arousing ($t(7) = 2.33$, $p = .05$) and more pleasant ($t(7) = 2.96$, $p = .02$) than neutral. Pleasant images were rated as more arousing ($t(7) = 3.12$, $p = .02$) and more pleasant ($t(7) = 8.26$, $p < .001$) than neutral images, while unpleasant did not differ from neutral. CONCLUSIONS: Preliminary findings suggest that the proposed paradigm can be carried out within the context of a clinical trial and may predict CM outcomes. Confirmation of these findings will be discussed in the context of targeting motivated attention as a neurobiological mechanism linked to CUD and treatment response.

Willing to present orally: No

Financial Support: NIDA R01 DA039125

Name of Sponsor (If you are NOT) a CPDD Member: Scott Lane

Email Address of Sponsor : Scott.D.Lane@uth.tmc.edu

Prefix: Dr.

First Name: Heather

Middle Initial: E

Last Name: Soder

Degrees: MA MD Ph.D etc:: Ph.D.

Email: heather.e.soder@uth.tmc.edu

CC Email: heather.e.soder@uth.tmc.edu

Company Affiliation: University of Texas Health Science Center at Houston

Mailing Address: 1941 East Road

City: Houston

State: Texas

Zip/Postal: 77054

Country: United States

Phone: 7134862723

ID: 560
Cigarette and cannabis use among new mothers

Omayma Alshaarawy, Michigan Sate University, oalshaarawy@epi.msu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Perinatal

Abstract: AIM: Regardless of feeding practices, maternal smoking has been implicated in a number of adverse health outcomes. Recently, cannabis use among breastfeeding mothers has been a growing concern. Here, cigarette and cannabis use estimates among new mothers participating in the United States (US) National Health and Nutrition Examination Survey (NHANES) are presented, stratified by breastfeeding status. METHODS: NHANES is designed to be nationally representative of US non-institutionalized population. NHANES protocol involves an interview at the participant residence where tobacco-smoking questions are administered. This interview is followed by a separate exam in mobile examination center (MEC) where reproductive health and cannabis use questions are administered. Non-pregnant women (20-44 years old) whose age of last live birth is equal to “current age” or “current age-1” were identified as new mothers. RESULTS: From 2001-16, 8703 non-pregnant women were examined in NHANES, among which 990 were new mothers. The 2001-04 prevalence (95% CI) of recently active cigarette smoking among new mothers was 23% (16%, 30%). By 2013-16, estimates decreased to 15% (11%, 19%). This decline was robust for new mothers and non-pregnant women of the same age (p CONCLUSIONS: Decline in cigarette smoking among new mothers was observed, whereas cannabis use modestly increased. Cigarette and cannabis use prevalence estimates were lower in breastfeeding mothers. As cannabis use increases among women of reproductive age, additional studies of the impact of use on the offspring are needed.

Willing to present orally: Yes

Financial Support: MSU and NCCIH R00AT009156

Prefix: Dr.

First Name: Omayma

Last Name: Alshaarawy

Degrees: MA MD Ph.D etc:: MBBS, Ph.D.

Email: oalshaarawy@epi.msu.edu

CC Email: oalshaarawy@gmail.com

Company Affiliation: Michigan Sate University

Mailing Address: 788 Service Road

Address 2: Room B113

City: East Lansing

State: MI

Zip/Postal: 48824

Country: United States

Phone: 5178840420

Membership Year: 2014

Sponsor: Dr. James Anthony, Ph.D. and Dr. Hui Cheng

Research Interests: Etiology,Epidemiology

Date of Membership: 11.16.18 approved

ID: 561
Preliminary findings from a brief contingency management intervention and its effects on cannabis abstinence and relapse

Stephanie Wemm, Yale University, stephanie.wemm@yale.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Treatment

Abstract: AIM: Contingency management (CM) is one of the most promising interventions for inducing abstinence in individuals with Cannabis Use Disorder (CUD). However, as many as 90% of individuals resume their cannabis use after completing CM, and relapse predictors are not known. We examined 2 levels of a one-week CM intervention with brief MI to identify early predictors of cannabis lapse and relapse. METHODS: 24 treatment-seeking CUD individuals (14 men, 10 women) were recruited in an ongoing study, and 17 individuals completed three weeks of followup. All participants completed one week of CM, during which they were paid on an increasing reinforcement schedule for continued abstinence. Participants completed baseline questionnaires of their use severity (CUDIT), craving (MCQ), and withdrawal during the CM week (CWS). Nine subjects received a possible $140 for sustained abstinence, whereas 15 could receive $280. Logistic and Cox regressions were used to predict lapse (single use day) and relapse (three consecutive use days) during and after CM treatment. RESULTS: Fifteen individuals (62.5%) maintained abstinence through the CM week. The larger CM compensation reduced the likelihood of a lapse during the CM week ($b = 3.211, p = .006$), but severity and craving at baseline and withdrawal during CM week did not ($p>.05$). Of those who successfully completed CM, the probability of those individuals having a lapse was 13.5% within the first day following treatment and 63.1% within the two weeks following CM. The probability of relapse was 12.8% two days following treatment and 24.9% 11 days after CM concluded. Severity, withdrawal, and craving did not predict time to lapse or relapse ($p>.05$). CONCLUSIONS: Most individuals undergoing brief CM relapse within the two weeks following treatment, regardless of their baseline severity. Higher levels of CM are more effective in successfully inducing abstinence, but more effective strategies are needed to sustain long-term outcomes.

Willing to present orally: No

Financial Support: Supported in part by Aelis Farma

Prefix: Dr.

First Name: Stephanie

Middle Initial: E.

Last Name: Wemm

Degrees: MA MD Ph.D etc:: Ph.D.

Email: stephanie.wemm@yale.edu

CC Email: stephanie.wemm@yale.edu

Company Affiliation: Yale University

Mailing Address: 38 Prospect St

Address 2: Unit 25

City: New Haven

State: CT

Zip/Postal: 06379

Country: United States

Phone: 3042662647

Membership Year: 2018

Sponsor: Dr. Rajita Sinha, PhD

Travel Award: Won Women and Gender 2018

Research Interests: Neurobiology,Treatment

ID: 562
An online survey of medicinal cannabinoid users: Qualitative analysis of users' experiences

Albert Garcia-Romeu, Johns Hopkins University School of Medicine, AGarci33@jhmi.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Treatment

Abstract: Aim: To characterize treatment experiences of medicinal cannabis/cannabinoid users. Methods: An anonymous online survey collected demographics, health information, and open-ended responses from medicinal cannabis/cannabinoid users regarding perceptions, motivations, and experience of treatment. Qualitative open-ended responses were thematically analyzed. Results: Respondents (N=226) were predominantly White (82%), female (64%), with a mean (SD) age of 39 (21). 39% of respondents provided data on a dependent family member (e.g., child; 31%). Most used "high CBD" products (52%), primarily for neurological disorders (38%) or pain (22%). Preliminary analyses found a majority of users (74%) attributed positive effects to the medicinal use of cannabis/cannabinoids. These included symptom improvements such as reduced seizures (22%), reduced pain (20%), improved sleep (16%), reduced anxiety (12%), and improved mood (10%); reduced use of other (e.g., opioid) medications (12%), and overall improvements in quality of life (15%). Adverse consequences associated with use were cited by 34% of respondents, and included adverse events (17%), legal issues (16%), lack of information and medical support (16%), trouble managing dosage or dose inconsistency across products (12%), and prohibitive costs (11%). Primary motivations for medicinal cannabinoid use were that traditional treatments had proven ineffective (32%) or had intolerable side effects (24%), and some (14%) expressed a philosophical preference for natural medicines over pharmaceuticals. Additionally, participants advocated for increased research efforts (41%) and expanded medical access (27%), and expressed gratitude for the growing availability of medical cannabinoids (17%). Conclusion: Most participants reported benefits from cannabinoid use for a variety of conditions where traditional treatments were ineffective or unacceptable. Concerns regarding cannabinoid side effects, legality, lack of information, and cost were raised. Data indicate greater research and education on the safety and efficacy of medicinal cannabis/cannabinoid use is warranted.

Willing to present orally: Yes

Financial Support: Funded by The Realm of Caring Foundation

Prefix: Dr.

First Name: Albert

Last Name: Garcia-Romeu

Degrees: MA MD Ph.D etc:: Ph.D.

Email: AGarci33@jhmi.edu

CC Email: AGRomeu77@gmail.com

Company Affiliation: Johns Hopkins University School of Medicine

Mailing Address: 5510 Nathan Shock Drive

Address 2: Behavioral Biology

City: Baltimore

State: MD

Zip/Postal: 21224

Country: United States

Phone: 410-550-1972

Fax: 410-550-0030

Membership Year: 2013

Sponsor: Dr. Roland R. Griffiths, Ph.D. Matthew Johnson

Research Interests: Behavioral Pharmacology,Treatment

ID: 563
Juvenile detention placements linked to past-30 day opioid misuse

William Dixon, University of Florida, williamdixon123@ufl.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Adolescent

Abstract: Aim: Individuals who engaged in opioid misuse (OM) are progressively funneled into correctional settings. Data showed half of justice populations met DSM-IV criteria for substance abuse or dependence. However, the majority of correctional institutions do not provide treatment. Rates of opioid relapse and overdose are higher after released, yet, no study has examined juvenile detention placement and past-30 day (P30D) OM among justice-involved children (JIC). Methods: Logistic regression was used to analyze 79,960 JIC from the Florida Department of Juvenile Justice (FLDJJ) while adjusting for sociodemographic and mental health characteristics. Results: Among the total sample, 2.7% met criteria for P30D OM and 64.2% had been placed in a secure detention facility at least once. Over 40% of P30D users had a history of three or more secure detention placements. Compared to JIC who were never placed in detention, those who were detained once were nearly twice as likely to meet criteria for P30D OM, those who were placed in secure detention twice were 2.4 times as likely, and those with a history of three or more secure detention placements were 3.3 times as likely. The effects of detention placement on P30D OM were significantly heightened for White and Latinx JIC. Compare to Blacks with a history of three or more detention placements, the predictive margins of P30D OM was 4.4 times higher for Latinx JIC with equivalent detention placements and 10 times higher for White JIC with equivalent detention placements. Conclusions. Detention placement is a critical risk factor for opioid misuse for all youth, and White and Latinx youth in detention facilities have elevated risk for P30D OM. Strict punitive models towards juveniles and may exacerbate the current opioid epidemic. Choosing healthcare over handcuffs is not only the more humane approach, but also the more effective according to the data.

Willing to present orally: Yes

Financial Support: Financial Support: This research was supported by the University of Florida Substance Abuse Training Center in Public Health from the National Institute of Drug Abuse of the National Institutes of Health under award number T32DA035167 (PI: Dr. Linda B. Cottler). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health or the Florida Department of Juvenile Justice.

Name of Sponsor (If you are NOT) a CPDD Member: Linda B. Cottler

Email Address of Sponsor : lbcottler@ufl.edu

Prefix: Mr.

First Name: William

Last Name: Dixon

Email: williamdixon123@ufl.edu

CC Email: MicahJohnson3000@gmail.com

Company Affiliation: University of Florida

Mailing Address: 2004 mowry road

City: GAINESVILLE

State: FL

Zip/Postal: 32610

Country: United States

Phone: 8503213194

ID: 564
A novel mathematical simulation to study the effect of naltrexone on CD4 cells, CD8 cells, and HIV viral load

Nirali Thakor, --None--, thakor.n@husky.neu.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM: To assess the behavior of Viral Load using mathematical models and to determine if Extended Release Naltrexone (XR-NTX) in persons living with HIV (PLH) impacts viral suppression. Clinical data originally in two completed double blind randomized controlled trials of XR-NTX among solely PLH with (1) OUD and (2) AUD respectively was utilized mathematically to assess the presence of XR-NTX as an effective adjuvant with ART on CD4 CD8 and VS . Instantaneous Inhibitory Potential (IIP) was utilized in the mathematical model and is an index that incorporates the slope of the dose response curve used to calculate the effectiveness of ART and naltrexone. METHODS: Differential equations were generated using MATLAB ODE 45. A time step of 0.1 days was utilized to plot CD4, CD8 and the viral load (VL). Clinical data on participants from the OUD (N=98) and AUD trials (N=100) receiving 6 monthly injections of XR-NTX or placebo was tabulated and the proportion that maintained or improved to VS (< 5 0 copies/mL) from baseline to 6 months was noted. These were converted into logarithmic functions to compute the IIP value of XR-NTX RESULTS: Published already, XR-NTX significantly improved VS (P = 0.002) in OUD and VS in AUD (P=.001) from baseline to 6 months. Mathematically, naltrexone had an IIP value of 0.17 and the VL remained completely suppressed until day 800 and the uninfected CD4 T cells stayed at 1500 cells/ mL of blood up to 800 days. When Naltrexone was combined with an Integrase Inhibitor there was superior longer period of VS for up to 1000 days. CONCLUSION: Naltrexone combined with ART in a mathematical model was shown to be beneficial in improving VS. This study elucidates the potential of using mathematical models as a predictor for examining a drug's efficacy in conjunction with clinical trials.

Willing to present orally: Yes

Financial Support: Research reported is done through Northeastern University and through the National Institute of Drug Abuse Springer (R01DA030762 & K02DA032322) and National Institute of Alcohol Abuse and Alcoholism (R01AA018944).

Name of Sponsor (If you are NOT) a CPDD Member: Sandra Springer

Email Address of Sponsor : sandra.springer@yale.edu

Prefix: Ms.

First Name: Nirali

Middle Initial: K

Last Name: Thakor

Email: thakor.n@husky.neu.edu

CC Email: sandra.springer@yale.edu

Company Affiliation: --None--

Mailing Address: 3400 Westwind Dr

City: Plano

State: TX

Zip/Postal: 75093-7987

Country: United States

Phone: 4699314481

ID: 565
The detection of fentanyl in human umbilical cord tissue: Method validation and prevalence in a high risk population

Joseph Jones, United States Drug Testing Laboratories, joe.jones@usdtl.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Perinatal

Abstract: Aims: Between 1999 and 2014, the prevalence of maternal opioid misuse has risen from 1.5 to 6.5 per 1000 deliveries ($p < 0$ .05; Haight et al, 2018). According to a recent report, over half of all opioid deaths involve fentanyl (O'Donnell et al, 2017), yet fentanyl is not included in most routine newborn toxicology tests (Nellhaus et al, 2018; Colby et al, 2018). Umbilical cord (UC) is a universal specimen type that is readily available using a simple collection procedure and has been gaining popularity as a specimen type for newborn toxicology. The specific aim of this study was to develop and validate a forensically defensible procedure to detect the presence of fentanyl in human UC tissue. Methods: The assay was validated using the guidelines of the Scientific Working Group for Forensic Toxicology (SWGTOX) and the method was used to survey a convenience sample of UC specimens received at a national reference laboratory for routine analysis. All specimens were subjected to validated immunoassay initial test (Fentanyl Direct ELISA Kit, Immunalysis, Pomona, CA) followed by confirmation of presumptive positive specimens using liquid chromatography tandem mass spectrometry (LC-MS/MS) following solid phase extraction (CSDAU, 200 mg bed/10mL cartridge; UCT, Bristol, PA). Results: The method satisfied all of the criteria recommended by SWGTOX. Between October 01 and November 30, 2018, our laboratory received 484 umbilical cord specimens for fentanyl analysis. The immunoassay procedure identified 5 specimens (1%) with fentanyl at or above the 500 pg/g cutoff. All 5 specimens contained detectable amounts of fentanyl using our validated LC-MS/MS confirmation procedure. Conclusions: We have presented a validated method for the detection of fentanyl in human UC tissue. This method will be useful for future epidemiological studies as well as a useful tool for the identification of fentanyl exposed newborns for cases referred for routine toxicological analysis.

Willing to present orally: No

Financial Support: Funded by USDTL

Prefix: Dr.

First Name: Joseph

Last Name: Jones

Degrees: MA MD Ph.D etc:: BS, MS, PhD

Email: joe.jones@usdtl.com

CC Email: jjones9760@yahoo.com

Company Affiliation: United States Drug Testing Laboratories

Mailing Address: 1700 S. Mount Prospect Road

City: Des Plaines

State: IL

Zip/Postal: 60018

Country: United States

Phone: (847) 375-0770

Fax: (847) 375-0775

Biography: Joseph Jones has worked in the clinical forensic toxicology field for over 30 years for large workplace drug testing laboratories and boutique forensic laboratories that specialize in testing alternative specimen types and is currently the Senior Vice President of United States Drug Testing Laboratories. He has contributed to over 25 peer-reviewed scientific papers in the field of forensic toxicology and facilitated numerous workshops and presentations. Jones has provided drug testing expert testimony on behalf of LabCorp and USDTL in a number of venues including union arbitration, unemployment hearings, family court child custody, child abuse/neglect and capital murder cases. Jones has been certified by the National Registry of Certified Chemists at a Toxicological Chemist.

Membership Year: 2013

Sponsor: Dr. Judy Hahn and Dr. Deborah Mash

Research Interests: Epidemiology,Toxicology/Teratology

Date of Membership: 11.16.18 approved

ID: 566
It's complicated: Exploring the relationship between quality improvement strategies and individual worker tasks and beliefs within an evolving health care environment

Sharon Reif, Brandeis University, Heller School for Social Policy and Management, reif@brandeis.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Any drug

Topic: Treatment

Abstract: AIM: Addiction treatment providers navigate complex and continually evolving system and policy environments. Workers within these setting experience a parallel process, functioning both independently and interdependently to complete the tasks assigned to them within their role while contributing to the agency's larger mission to provide high quality care to those in need. This study examined similarities and differences in the types of tasks undertaken by administrative staff, clinical staff, and managers at 8 addiction treatment programs in Maine. Differences in staff member beliefs regarding activities which may impact client wait time or length of engagement and treatment were also examined. METHODS: This mixed methods study analyzed survey data from 21 administrative staff, 52 clinicians, and 9 managerial staff from 8 outpatient treatment programs. Interviews with program directors provided information about resource constraints and the larger policy environment. RESULTS: Findings highlight the tension between fulfilling job requirements and recognition/awareness of the organization's focus on mission, quality of care, and sustainability. Survey data indicate: (1) Over-adherence to role-specific tasks may reduce opportunities to support the organization's mission. (2) Missed opportunities exist for staff to provide additional support to coworkers and consumers. (3) Administrative staff as key contributors to quality care may be undervalued. This study was conducted during a period of significant cuts to human services budgets in Maine while simultaneously navigating the opioid crisis. Interview data highlight the consequences of policy level changes on service delivery and quality improvement initiatives. CONCLUSION: These findings suggest the need to extend team members' scopes of work to support organizational quality improvement efforts. Recognizing the inherent complexity of the addiction treatment system and the broader policy environment, and set in the context of the opioid crisis, further research is warranted that explores resistance to innovative approaches that go beyond "usual practice" boundaries.

Willing to present orally: Yes

Financial Support: This study was funded by the National Institute on Drug Abuse (R01 DA033402) with additional support from the Brandeis-Harvard NIDA Center (P30 DA035772).

Name of Sponsor (If you are NOT) a CPDD Member: Constance Horgan

Email Address of Sponsor : horgan@brandeis.edu

Prefix: Dr.

First Name: Sharon

Last Name: Reif

Degrees: MA MD Ph.D etc:: Ph.D.

Email: reif@brandeis.edu

CC Email: rifkin@brandeis.edu

Company Affiliation: Brandeis University, Heller School for Social Policy and Management

Mailing Address: 415 South Street, MS 035

City: Waltham

State: MA

Zip/Postal: 02453

Country: United States

Phone: 781-736-3924

ID: 567
Are juvenile offenders with ADHD more likely to misuse opioids?

Kristen Wilson, University of Florida: STOMP Lab, kris.wilson16@ufl.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Adolescent

Abstract: Aim: ADHD is among the most common neurobehavioral disorders requiring treatment, and has been linked to opioid misuse in adults. Evidence suggests that ADHD diagnosis in childhood increases susceptibility to subsequent drug dependence. Justice-involved children (JIC) have a higher prevalence of both ADHD and substance abuse, yet the association between ADHD and opioid misuse among JIC has not been examined. Methods: The data was obtained from the Florida Department of Juvenile Justice (FLDJJ). In this secondary cross-sectional study, 79,960 JIC were examined. Opioid misuse referred to using illegal opioids, such as heroin, and/or prescription opioids non-medically. Bivariate and multivariate logistic regression analyses were conducted to investigate these relationships. Results: ADHD diagnosis was more prevalent among those who met criteria for past-30 day opioid misuse than those who did not. More than 36% of past-30 day opioid users were diagnosed with ADHD compared to 25% of non-past-30 day opioid users. ADHD diagnosis was associated with a higher risk for past-30 day opioid misuse. JIC who were diagnosed with ADHD were 18% as likely to meet criteria for past-30 day opioid misuse as those who were not diagnosed with ADHD. Conclusions: ADHD is associated with a slight risk of current opioid misuse. Implications and limitations are discussed. Future research should examine the interaction effects of ADHD and depression on risk of opioid misuse among JIC.

Willing to present orally: Yes

Financial Support: Financial Support: This research was supported by the University of Florida Substance Abuse Training Center in Public Health from the National Institute of Drug Abuse of the National Institutes of Health under award number T32DA035167 (PI: Dr. Linda B. Cottler). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health or the Florida Department of Juvenile Justice.

Name of Sponsor (If you are NOT) a CPDD Member: Linda B. Cottler

Email Address of Sponsor : lbcottler@ufl.edu

Prefix: Ms.

First Name: Kristen

Last Name: Wilson

Email: kris.wilson16@ufl.edu

CC Email: micahjohnson3000@gmail.com

Company Affiliation: University of Florida: STOMP Lab

Mailing Address: 2004 mowry road

City: Gainesville

State: FL

Zip/Postal: 32610

Country: United States

Phone: 3522739307

ID: 568
Temporal response in subgenual anterior cingulate cortex (sgACC) to drug salient cues: An fMRI study among meth users

Hamed Ekhtiari, Laureate Institute for Brain Research, hekhtiari@laureateinstitute.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Imaging

Abstract: Aim: Routinely, average response to drug related cues in contrast to neutral cues is reported as the signal of interest in drug cue reactivity fMRI tasks. Temporal dynamics of cue reactivity as an affective/motivational response is not well explored yet. In a classic block-designed cue-reactivity task, time is added as a linear-term to the whole brain analysis to find areas with temporal response to drug cues. Methods: Forty-two male participants (mean age 36.6) with methamphetamine use disorder were recruited in their early abstinence (61.4 days, range 14-187). In the cue reactivity task, participants are presented with 8 blocks of cues that are either meth-related or neutral. In order to evaluate the temporal dynamics of the BOLD response, we included separate regressors for each block of images. The linear mixed effects model was "beta ~ condition * time" with a random effect for subject. Time was treated as a continuous variable. $p < 0.0001$ and $p < 0.001$ were considered as the significance threshold for main effects and interactions consecutively. Results: In the whole brain analysis, the main effect of cue type was significant in areas reported in previous cue reactivity studies, i.e., prefrontal cortex, amygdala, striatum, insula and secondary visual processing areas. Few small clusters in areas like dorsolateral prefrontal (DLPFC) and dorsal anterior cingulate cortex (dACC) showed the negative main effect of time. A single cluster in subgenual ACC (sgACC) showed significant interaction between time and cue type with a negative slope for the drug related cues. No effect of abstinence duration was found on this negative slope. Conclusion: sgACC shows a habituation in response to drug related cues over time. Dynamic analysis in cue exposure fMRI tasks with including time in interaction between drug related and neutral cues will provide a new level of potential fMRI biomarkers for addiction medicine.

Willing to present orally: Yes

Financial Support: Laureate Institute for Brain Research and Warren Family Foundation

Name of Sponsor (If you are NOT) a CPDD Member: Stacy Daughters agreed

Email Address of Sponsor : mpaulus@ucsd.edu

Prefix: Dr.

First Name: Hamed

Last Name: Ekhtiari

Degrees: MA MD Ph.D etc:: MD, PhD

Email: hekhtiari@laureateinstitute.org

CC Email: h.ekhtiari@gmail.com

Company Affiliation: Laureate Institute for Brain Research

Mailing Address: 4920 South Joplin Avenue

City: Tulsa

State: Oklahoma

Zip/Postal: 74135

Country: United States

Phone: 4059821656

ID: 569
Intermittent abstinence potentiates oxycodone self-administration and alters brain reward sensitivity

Jacques Nguyen, The Scripps Research Institute, janguyen@live.unthsc.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Behavior

Abstract: Aims: Prescription opioid addiction is a significant health problem characterized by compulsive drug seeking, withdrawal and chronic relapse. This study investigated the consequences of intermittent abstinence on escalation of oxycodone intravenous self-administration (IVSA) and on brain reward function in rats. Methods: Male Wistar rats were trained to intravenously self-administer oxycodone (0.15 mg/kg/infusion, i.v.) in 1h Short Access (ShA) or 12h Long Access (LgA) sessions for 5 sessions/week. A separate group of rats was trained in the intracranial self-stimulation (ICSS) reward procedure and then intravenous oxycodone self-administration in 11h LgA sessions. ICSS reward thresholds were tested prior to each IVSA session and following 60h drug abstinence periods. Results: Rats given LgA to oxycodone IVSA escalated their responding more than rats given ShA to oxycodone, and significant increases in oxycodone intake were observed following 60h weekend discontinuations from LgA IVSA sessions. In ICSS trained-rats, pre-IVSA brain reward thresholds increased with sequential daily LgA sessions, consistent with a growing negative affective state consequent to successive daily abstinence cycles. A 1h IVSA interval was sufficient to normalize these elevated reward thresholds. Interestingly, the brain reward thresholds normalized to baseline across 60h weekend abstinences. Conclusions: Drug access and discontinuation intervals each impact the acquisition and maintenance of oxycodone self-administration. The normalization of brain reward status during abstinence periods suggests that escalation of oxycodone IVSA may not be driven entirely by a persisting negative affective state, but rather driven by a complex mix of negative and positive reinforcing effects of the drug. Overall, these data further suggest that a lack of medication adherence may increase a liability for oxycodone addiction.

Willing to present orally: Yes

Financial Support: Funded by the United States Public Health Service National Institutes of Health (R01 DA035281)

Prefix: Dr.

First Name: Jacques

Middle Initial: D

Last Name: Nguyen

Degrees: MA MD Ph.D etc:: Ph.D.

Email: janguyen@live.unthsc.edu

CC Email: jdnguyen@scripps.edu

Company Affiliation: The Scripps Research Institute

Mailing Address: Mailcode SP30-2400

Address 2: 10550 North Torrey Pines Road

City: La Jolla

State: CA

Zip/Postal: 92037

Country: United States

Phone: 8176915104

Membership Year: 2012

Sponsor: Dr. Michael Gatch

Research Interests: Behavioral Pharmacology,Neurobiology

ID: 570
The role of residential evictions in shaping harm amidst twin epidemics of illicit opioid and methamphetamine use: A qualitative study in Vancouver, Canada

Ryan McNeil, University of British Columbia, BC Centre on Substance Use, rmcneil@cfenet.ubc.ca

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Prevention

Other Topic: Social determinants

Abstract: AIM: North America's twin epidemics of illicit opioid and methamphetamine use are contributing to an unprecedented public health crisis, including high rates of hospitalization and non-fatal and fatal overdoses. In Vancouver, Canada, these epidemics operate alongside a housing crisis that is disproportionately impacting people who use drugs (PWUD), including increases in residential evictions. This study hypothesized that residential eviction would result in changes to drug use patterns among PWUD that increase vulnerability to drug-related harms, including overdose. METHODS: Qualitative interviews were conducted with PWUD who had recently been evicted (past 60 days) and were recruited through outreach by Peer Researchers. 56 PWUD participated in an initial interview focusing on the causes and immediate consequences of their eviction. 41 PWUD completed a follow-up interview 3-6 months later regarding longer-term impacts of evictions on drug-related risks and harms. Transcripts were analyzed using inductive and deductive approaches. RESULTS: The majority of participants were evicted into homelessness and the subsequent precarity disrupted survival strategies (e.g., formal and informal work) that had enabled them to manage drug use within the context of criminalization and poverty. Subsequent changes to drug use patterns increased vulnerability to drug-related harms, including overdose. Disruptions in regular access to opioids, including from familiar sources (e.g., regular dealers), meant that participants were frequently injecting drugs of unknown purity and under duress (e.g., withdrawal), which constrained their ability to enact harm reduction practices and led some to experience overdoses. Increased crystal methamphetamine use emerged as a survival strategy to stay alert to reduce vulnerability to physical and sexual assault following eviction but led to deteriorating mental health and hospitalization. CONCLUSION: Findings implicate housing vulnerability in exacerbating drug-related risks and harms, and point to the urgent need for structural interventions (e.g., anti-eviction policies, expansion of social housing) that address this social determinant.

Willing to present orally: Yes

Financial Support: United States National Institutes of Health (R01DA044181); Vancouver Foundation; Canadian Institute of Health Research

Name of Sponsor (If you are NOT) a CPDD Member: Evan Wood

Email Address of Sponsor : evan.wood@bccsu.ubc.ca

Prefix: Dr.

First Name: Ryan

Last Name: McNeil

Degrees: MA MD Ph.D etc:: PhD

Email: rmcneil@cfenet.ubc.ca

Company Affiliation: University of British Columbia, BC Centre on Substance Use

Mailing Address: BC Centre on Substance Use BCCSU

Address 2: 400-1045 Howe

City: Vancouver

State: BC

Zip/Postal: V6Z 2A9

Country: Canada

Phone: (604) 354-5803

ID: 571
Peer supports at the intersection of opioid use disorder and disability

Sharon Reif, Brandeis University, Heller School for Social Policy and Management, reif@brandeis.edu

---

Abstract Category: Program Descriptions

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM: Peer recovery support for substance use disorder (SUD) has a moderate level of evidence. Systematic reviews highlight the need to specify models more clearly, investigate the interaction with other services, and consider how individual differences may contribute to effectiveness. Peer supports may be available, accessible and useful to individuals with disabilities living with OUD but questions remain. For example, what would a model of peer support targeted to the intersection of disability and addiction look like? Would shared experiences of OUD and recovery be more important than common experiences conveyed by a particular disability? METHODS: Massachusetts is implementing peer support models in distinct service sectors and funding streams, targeted to diverse populations. We will use interviews and document review to describe these activities. Our questions are: (1) What peer support programs exist that may be of value to individuals with disabilities and OUD? (2) Which models or components are best-suited for these individuals? (3) What adaptations or accommodations would enhance relevance and accessibility? RESULTS: Challenges for peer providers include provision of effective supervision and continuing education, role conflict, boundary issues, and discrimination by non-peer staff. These challenges, as well as stigma linked to both OUD and disability, could be heightened in the provision of peer supports to people with disabilities and OUD. CONCLUSIONS: New models may not be needed. However, current models may not be well-suited to the needs of people with disabilities, due to accessibility or relevance. Given the range of models, peer supports may be duplicated or fragmented, leaving people with disabilities to “fall through the cracks.” Lessons learned will be useful to other state policy makers and providers nationally who are facing the opioid crisis challenge, providing a full SUD continuum of care, allocating resources, and implementing services to meet the needs of affected individuals, families and communities.

Willing to present orally: Yes

Financial Support: Funded by National Institute on Disability, Independent Living and Rehabilitation Research (NIDILRR) Grant #90DPGE0007

Name of Sponsor (If you are NOT) a CPDD Member: Constance Horgan

Email Address of Sponsor : horgan@brandeis.edu

Prefix: Dr.

First Name: Sharon

Last Name: Reif

Degrees: MA MD Ph.D etc:: Ph.D.

Email: reif@brandeis.edu

CC Email: rifkin@brandeis.edu

Company Affiliation: Brandeis University, Heller School for Social Policy and Management

Mailing Address: 415 South Street, MS 035

City: Waltham

State: MA

Zip/Postal: 02453

Country: United States

Phone: 781-736-3924

ID: 572
Persuading police to support public health in Mexico: Interactive training improves police endorsement of syringe legality

jaime arredondo, BC Centre on Substance Use (BCCSU), jaime.arredondo@bccsu.ubc.ca

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Policy

Abstract: Aim: Despite syringe possession legality in Mexico, pervasive syringe confiscation potentiates risk of HIV/HCV among people who inject drugs (PWID) and occupational needle-stick injury (NSI) among police. As part of police education program (PEP), we assessed how instructional techniques factor into officer acceptance to inform PWID about syringe and drug legality. Methods: Tijuana, Mexico municipal officers underwent training to publicly endorse syringe legality by relaying the law on syringes to PWID. As a result of a natural experiment, trainees received either a short video or an interactive role-play exercise illustrating occupational benefits of communicating syringe policy during frisking to all suspects. Logistic regression was used to assess PEP impact on self-reported intent to communicate syringe legality by training type and gender. Results: Officers (N=1749) were mostly male (86%) and assigned to patrol (84%). After PEP, overall intent to relay the law improved by 19% (video group) and 38% (interactive group). Gender and training type significantly predicted intent: After the interactive training, men were 5.37 times (95%CI: 4.56–6.33, AOD) and women 9.16 times (95%CI: 5.88–14.28, AOD) more likely to communicate syringe legality to PWID, as compared to 2.49 (95%CI: 1.91-3.23) and 3.20 (95%CI: 1.84-5.57) in the video group, respectively. Discussion: PEP-enhanced has the potential to improve occupational safety and public health training on syringe legality, especially when it integrates interactive instructional techniques. The inclusion of interactive role-play elements should be considered in future PEPs designed to improve syringe access and police occupational safety relating to syringes.

Willing to present orally: Yes

Financial Support: Support for the current research was provided by the Fogarty International Center of the National Institutes of Health under award NumberD43TW008633 and R25TW009343, and by the National Institute on Drug Abuse (R01DA039073,R37DA019829 and T32DA023356).

Prefix: Mr.

First Name: jaime

Last Name: arredondo

Degrees: MA MD Ph.D etc:: Ph.D.

Email: jaime.arredondo@bccsu.ubc.ca

Company Affiliation: BC Centre on Substance Use (BCCSU)

Contact Title: Postdoctoral Fellow

Mailing Address: 400-1045 Howe St

City: Vancouver

State: BC

Zip/Postal: BC V6Z 2A9

Country: Canada

Phone: 8583668599

ID: 573
Anticipated vs. actual postpartum contraception use among pregnant cigarette smokers

Roxanne Harfmann, University of Vermont, roxanne.harfmann@uvm.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Nicotine/Tobacco

Topic: Perinatal

Abstract: AIM Smoking during pregnancy is the leading preventable cause of poor pregnancy outcomes. Efforts to prevent smoking-exposed pregnancies have focused almost exclusively on trying to help pregnant smokers quit, with little attention paid to the fact that more than half of these pregnancies are unintended. Correct and consistent use of effective contraception prevents unintended pregnancy, but little is known about contraceptive use specific to female smokers. Thus, the present study examined pregnant smokers' contraception intentions for after delivery as compared to actual contraception use once postpartum. METHODS Data were collected from pregnant cigarette smokers enrolled in a clinical trial for smoking cessation. At approximately 17- and 28-weeks antepartum (AP), women were asked what contraceptive methods they planned to use after delivery. At approximately 4- and 8-weeks postpartum (PP), they were asked what methods they had used since delivery. Initial data are from 32 women. RESULTS AP, most women (87%-97%) reported they were planning to use contraception PP. Of these, the majority (58-59%) intended to use one of the most effective contraceptive methods (intrauterine device, implant, or sterilization), but actual use PP was initially only 16% at 4 weeks PP before rising to 31% at 8 weeks PP. Although few women (3-13%) reported that they were not planning to use contraception PP, 50% of women reported no use at 4 weeks PP, decreasing to 3% at 8 weeks PP. CONCLUSION These preliminary results suggest more than a third of women who want one of the most effective methods do not receive it and that across all methods, half of all women are not protected in the early PP period. More research is needed to further these findings and to better understand contraceptive use in this vulnerable population as another method for reducing smoking-exposed pregnancies.

Willing to present orally: Yes

Financial Support: Supported in part by NIH grants R01 HD075669, R01 DA036670, T32 DA007242 and P20 GM103644

Prefix: Ms.

First Name: Roxanne

Middle Initial: F.

Last Name: Harfmann

Degrees: MA MD Ph.D etc:: BA

Email: roxanne.harfmann@uvm.edu

CC Email: roxanneharfmann@gmail.com

Company Affiliation: University of Vermont

Mailing Address: 1 South Prospect Street

Address 2: MS# 482

City: Burlington

State: VT

Zip/Postal: 05401-1419

Country: United States

Phone: 802-656-1983

ID: 574
Perspectives on stimulant use among 10 to 17 year old in six-cities in the US

Deepthi Varma, University of Florida, College of Public Health and Health Professions, dvarma@ufl.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Epidemiology

Abstract: Aims: Illicit use of prescription stimulants among youth is an emerging problem in the US. Therefore, this study aimed to understand the most common and preferred methods of substance use, and source of risk information in order to design and implement effective prevention interventions for this population. Methods: The Study of Non-Oral Administration of Prescription Stimulants (SNAPS) conducted in September 2018 recruited 1,777 youth 10-17 years of age from urban, rural and suburban areas in six US cities across the three most populous states in the US (California, Texas, Florida) using an entertainment venue intercept approach. We analyzed data from open-ended questions on usage methods and perceptions that were asked at the end of a survey on substance use showing pictures. Results: Of the 1,777 youth, 292 were 10-12 years old, 855 were 13-15 years old and 630 were 16-17 years old. Snorting or sniffing were the most frequently mentioned methods of using stimulants (296 times). An oral route (269 times), and smoking (242 times) were other methods of use by older youth, while pills (81 times) and vaping (56 times) were mentioned more times by 13-15 year olds. Among youth of all ages, marijuana was most mentioned as the major drug problem (711 times), followed by vaping (218 times) and other drugs (197 times). 'School' was the preferred source of information on the risks of prescription stimulant misuse (213 times) for the youth of all ages. Parents, social media and internet were the preferred source of information among 16-17 year olds. Conclusion: Findings from this study help us develop effective prevention interventions on stimulant use among youth. This study showed that nonprescription use was most often non-oral consistent with the quantitative survey findings. Youth affirmed schools, parents, social media and internet were important information sources for prevention.

Willing to present orally: Yes

Financial Support: This study was funded by Arbor Pharmaceuticals LLC.

Prefix: Dr.

First Name: Deepthi

Middle Initial: S

Last Name: Varma

Degrees: MA MD Ph.D etc:: Ph.D, MPhil, MSW

Email: dvarma@ufl.edu

CC Email: deepthivarma@hotmail.com

Company Affiliation: University of Florida, College of Public Health and Health Professions

Mailing Address: 2004 Mowry Rd, CTRB

City: Gainesville

State: FL

Zip/Postal: 32610

Country: United States

Phone: (352) 294-5941

Fax: 352-273-5365

Sponsor: Dr. Linda Cottler and Dr. Catherine Woodstock Striley

Research Interests: Epidemiology,Psychiatric/Medical Morbidity

Date of Membership: appyling for Assoc. 9.1

ID: 575
Opioid overdose in patients treated with extended-release naltrexone: Postmarketing data from 2006 to 2018

Priya Jain, Alkermes, Inc., priya.jain@alkermes.com

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM Opioid overdose rates are increasing in the United States. Patients treated with naltrexone for extended-release injectable suspension (XR-NTX), a μ-opioid receptor antagonist, may be vulnerable to opioid overdose if they attempt to override the blockade, miss a dose, or discontinue XR-NTX. Clinical trials of patients treated with XR-NTX have not demonstrated an increase in overdose susceptibility compared with treatment-as-usual, placebo, or buprenorphine-naloxone. We assessed postmarketing rates of reported opioid overdose during and after treatment with XR-NTX. METHODS Case data from postmarketing adverse event reports received from 2006-2018 for patients treated with XR-NTX for any indication were manually reviewed for opioid overdose cases: identified cases were adjudicated by ≥2 reviewers. Assessable cases were categorized by overdose type and the timing of the event from the last dose of XR-NTX (latency): ≤28 days (on-treatment), 29-56 days post-treatment, and >56 days post-treatment. Within each latency, cases were further segmented into serious cases, and of those, cases which had a fatal outcome. RESULTS During the 12-year period, an estimated 495,602 patients received XR-NTX. Overdoses with opioids were reported in 161 cases; of these, 66 cases provided sufficient information to determine latency. Opioid overdose rates (including for subset of serious and/or fatal cases) were similar for each latency category. The rate of reported overdose per 10,000 patients treated was 0.54 for ≤28 days from the last dose of XR-NTX (0.24, fatal), 0.34 for 29-56 days post-treatment (0.16, fatal); and 0.44 for >56 days post-treatment (0.40, fatal). CONCLUSION Assessment of postmarketing rates of reported overdoses found that opioid overdose during or after treatment with XR-NTX was rare (< 1 /10,000) within each latency. As the incidence of opioid overdose in the United States continues to rise, further research is needed to better understand the risk of overdose in patients receiving or discontinuing medication for opioid use disorder.

Willing to present orally: Yes

Financial Support: Funded by Alkermes, Inc.

Name of Sponsor (If you are NOT) a CPDD Member: Loretta Finnegan

Email Address of Sponsor : finnegal337@gmail.com

Prefix: Dr.

First Name: Priya

Last Name: Jain

Degrees: MA MD Ph.D etc:: MD

Email: priya.jain@alkermes.com

CC Email: priya.jain@alkermes.com

Company Affiliation: Alkermes, Inc.

Mailing Address: 20 Latura street

City: Shrewsbury

State: MA

Zip/Postal: 01545

Country: United States

Phone: 7812961942

ID: 576
An exploratory study of decision factors for seeking medication assisted treatment for prescription opioid use disorder

Patricia Wright, University of Arkansas for Medical Sciences, wrightpatriciab@uams.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM. Identify key decision factors for seeking medication assisted treatment (MAT) from the perspective of persons with prescription opioid use disorder (POUD) entering outpatient MAT in a rural southern state. METHODS. The study population for this focused ethnographic study consisted of 18 individuals with POUD currently enrolled in an ongoing NIDA-funded clinical trial (R01DA039088). In-depth qualitative interviews were conducted with each participant at the time they entered outpatient MAT and digitally recorded. Interview recordings were transcribed verbatim, checked for accuracy then entered into MAXQDA for data management. To assure consistency, the same person conducted all interviews using an interview guide. Content analysis and constant comparison were used for data analysis. A codebook with definitions was developed and used to code all interviews. RESULTS. Participants averaged 30.1 years of age, with 47.37% male, 10.5% black, and 89.5% white. Our preliminary analyses revealed the following prominent themes which can help explain the help-seeking behaviors of rural persons with POUD and the factors that influence their engagement in MAT: 1) loss or threat of loss (relationship, home, job, freedom), 2) lifestyle exhaustion, 3) traumatic event, 4) fear of withdrawal, 5) unsuccessful non-MAT attempts. All participants said that they could only engage in outpatient treatment due to family or work responsibilities even though four traveled thirty miles or more every day to obtain treatment. CONCLUSION. Despite several years of research that demonstrate the effectiveness of MAT in treating POUD, these medications are greatly underutilized. Our findings provide primarily external motivators are involved in MAT seeking behaviors, providing a better understanding of attitudinal and contextual influences that can guide development of more effective outreach strategies to facilitate MAT engagement among rural persons with POUD. Findings also provide preliminary data to support larger studies in more diverse populations.

Willing to present orally: Yes

Financial Support: “Supported by grants R21 DA045246 and R01 DA039088 from the National Institute on Drug Abuse and a pilot grant from Sigma and the Southern Nursing Research Society.”

Name of Sponsor (If you are NOT) a CPDD Member: Alison Oliveto

Email Address of Sponsor : olivetoalison@uams.edu

Prefix: Dr.

First Name: Patricia

Middle Initial: B

Last Name: Wright

Degrees: MA MD Ph.D etc:: PhD, MPH

Email: wrightpatriciab@uams.edu

CC Email: trishwright@mac.com

Company Affiliation: University of Arkansas for Medical Sciences

Mailing Address: 4301 W. Markham ST, #529

City: Little Rock

State: AR

Zip/Postal: 72204-7199

Country: United States

Phone: 5017659469

ID: 577
Intersecting research on opioid misuse, addiction, and disability: A critical review

Sharon Reif, Brandeis University, Heller School for Social Policy and Management, reif@brandeis.edu

---

Abstract Category: Literature Review

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM: Strikingly little is known about opioid use disorder (OUD) among people with disabilities, which undermines the ability to address the opioid crisis in the disability community. We aim to understand this intersection, in the context of access to care and quality of care. METHOD: Systematic review of peer-reviewed and gray literature. RESULTS: OUD prevalence appears to be higher among people with disabilities (PWD). For instance, opioid misuse is almost 9% for adult PWD versus 5% of adults without disabilities. PWD are at increased risk for substance use disorders (SUD) broadly, which should lend guidance for understanding OUD in this population. Adults with physical disabilities have 50% greater SUD risk than other adults. Persistent pain and disability are closely related and may increase risk for long-term opioid use and OUDs among PWD. People with traumatic brain injury (TBI) have increased OUD due to prescribed opioids for pain, headaches, or injuries. As with risk for alcohol misuse, they may be more susceptible to OUD post-injury, in part due to the addictive nature of opioids and prevalent use among people with TBI. Expanding access to medication treatment for OUD has been a great challenge. People with disabilities and OUD face additional treatment barriers, with inaccessible services most commonly reported. In one study, PWD were denied SUD services due to physical and/or programmatic barriers at rates ranging from 65% for people with mobility impairments to 85% for people with multiple sclerosis. Further, PWD may need accommodations to support use of medication treatment or participate in psychosocial counseling. CONCLUSION: Access to evidence-based OUD treatment by people with disabilities is largely unknown. Promising practices, such as recovery coaches, primary care integration and telehealth seem to improve access to treatment in the general population, and should be examined in the disability population.

Willing to present orally: Yes

Financial Support: Funded by National Institute on Disability, Independent Living and Rehabilitation Research (NIDILRR) Grant #90DPGE0007

Name of Sponsor (If you are NOT) a CPDD Member: Constance Horgan

Email Address of Sponsor : horgan@brandeis.edu

Prefix: Dr.

First Name: Sharon

Last Name: Reif

Degrees: MA MD Ph.D etc:: Ph.D.

Email: reif@brandeis.edu

CC Email: rifkin@brandeis.edu

Company Affiliation: Brandeis University, Heller School for Social Policy and Management

Mailing Address: 415 South Street, MS 035

City: Waltham

State: MA

Zip/Postal: 02453

Country: United States

Phone: 781-736-3924

ID: 578
Implementation of emergency department initiated buprenorphine induction for opioid use disorder

Carolyn Bogdon, Medical University of South Carolina, bogdon@musc.edu

---

Abstract Category: Program Descriptions

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim: Expanding upon the results of D'Onofrio [JAMA 2015; 313(16): 1636–1644], we have taken an implementation science approach to inducting emergency department (ED) patients with Opioid Use Disorder (OUD) onto buprenorphine in three diverse South Carolina EDs. The aim of this pilot program is to foundationally integrate SBIRT in hospital EDs, identify patients with OUD, determine patients eligible for treatment with medication assisted treatment (MAT), and arrange next day follow up with a local provider for ongoing treatment utilizing peer recovery coaches. Method: Hospital partner sites included a large academic medical center, a large private hospital and a small community hospital. Prior to implementing this quality improvement initiative, we completed an ED workflow analysis at each site, developed internal planning committees including identification of a "hospital champion," facilitated electronic health record modifications, educated 200 ED nurses and providers, and identified a network of local community "Fast Track" providers able to accept patients for next day appointments. Results: Within one year, all three sites were fully operationalized. Project staff in 3 ED sites screened 4,824 patients for substance misuse; 33% screened positive for at-risk substance use. Of the 518 positive for concerning opioid use, 70% were determined potentially eligible to receive buprenorphine induction. 170 patients were inducted with one dose of 8mg sublingual buprenorphine or 8-2mg sublingual buprenorphine/naloxone; 81% of those inducted arrived to next day appointments for continued MAT; and 62% of patients were retained in treatment at 30 days (not all patients reached the 30-day mark at time of submission). Conclusion: With adequate resources and institutional support, implementation of evidence-based quality improvement initiatives are feasible and improve patient care in a rural Southern state.

Willing to present orally: Yes

Financial Support: Project Support: South Carolina Department of Health and Human Services and South Carolina Department of Alcohol and Other Drug Services

Name of Sponsor (If you are NOT) a CPDD Member: Kathleen Brady

Email Address of Sponsor : bradyk@musc.edu

Prefix: Ms.

First Name: Carolyn

Middle Initial: I

Last Name: Bogdon

Degrees: MA MD Ph.D etc:: MSN, FNP-BC

Email: bogdon@musc.edu

Company Affiliation: Medical University of South Carolina

Mailing Address: 67 President Street

Address 2: Room 444N, MSC 861

City: Charleston

State: SC

Zip/Postal: 29425

Country: United States

Phone: 8437924507

ID: 579
Novel strategies for the treatment of opioid use disorder: Anti-fentanyl vaccine

Colin Haile, University of Houston, cnhaile@uh.edu

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Dependence

Abstract: The latest statistics indicate an alarming increase in overdose deaths involving highly potent synthetic opioids such as fentanyl (FEN). FEN is also associated with increased rates of opioid use disorder (OUD). Available pharmacotherapies have not proven suitable therefore new approaches are needed. A novel treatment strategy that could help mitigate potential overdose and relapse is vaccination with an anti-FEN vaccine. We previously generated a vaccine against methamphetamine (METH) and combined it with the adjuvants Alum (aluminum hydroxide) and the TLR5 (toll-like receptor) agonist entolimod which increased the antigenic potency of the vaccine. Here we apply this same approach in the development of an anti-fentanyl vaccine. Aims: Produce an anti-fentanyl vaccine and determine whether the vaccine would elicit fentanyl-specific antibodies and assess fentanyl's analgesic effects in vaccinated and non-vaccinated mice. Methods: A FEN hapten (glutaryl-FEN) was synthesized then attached to the immunogenic tetanus toxoid carrier protein. The resulting conjugate (8µg) was combined with Alum (1500µg) and entolimod (1µg). Mice (female Balb/c, 4-5/group) were then vaccinated at 0, 3 and 6 wks. Blood samples were obtained at 6, 8 and 12 wks and antibody concentrations determined with ELISA. Analgesic effects of fentanyl (0.1 mg/kg, IP) were assessed using the tail flick assay. Results: Anti-fentanyl antibodies were detected at 6, 8 and 12 wks post-vaccination with highest levels seen at the latter time point. Statistical analysis showed fentanyl significantly increased latency to tail flick in non-vaccinated mice ($p < 0.001$) but not in vaccinated mice ($p = 0.83$) and this effect was significantly different between groups ($p < 0.001$). Conclusions: Results indicate our vaccine can generate anti-fentanyl specific antibodies and significantly attenuate the analgesic effects of fentanyl. These data support further development of this vaccine for eventual use in humans for opioid overdose protection and treatment of OUD.

Willing to present orally: Yes

Financial Support: Kadvax Technologies Inc.

Name of Sponsor (If you are NOT) a CPDD Member: Therese A. Kosten

Email Address of Sponsor : takosten@central.uh.edu

Prefix: Dr.

First Name: Colin

Last Name: Haile

Email: cnhaile@uh.edu

CC Email: cnhaile@uh.edu

Company Affiliation: University of Houston

Mailing Address: Health 1

Address 2: 4849 Calhoun Road Rm 373

City: Houston

State: TX

Zip/Postal: 77204-6022

Country: United States

Phone: 281-917-3668

Fax: 832-842-7432

ID: 580
Revealing dynamic epigenetic changes in the nucleus accumbens induced by methamphetamine overdose

Anna Moszczynska, Wayne State University, ei2744@wayne.edu

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Stimulants

Topic: Genetics

Other Topic: Epigenetics

Abstract: AIM: In the height of the opioid crisis in our country, deaths from methamphetamine (MA) overdose are on the rise. More than 72,000 Americans died from drug overdoses in 2017, and high percentage of those deaths were caused by MA. There is no FDA-approved medication for MA Use Disorder (MUD) or neurotoxic consequences of MA overdose for surviving MA users; therefore, there is a need to understand how brain responds to high doses of this drug. The aim of this study was to measure the dynamic epigenetic changes of chromatin accessibility in the binge MA-exposed nucleus accumbens, the drug reward-mediating brain area, in the rat. METHODS: We performed ATAC-seq analysis on nucleus accumbens samples from young adult (2-month-old) MA-overdosed young adult male rats sacrificed at 24h after the exposure to MA overdose. RESULTS: We found that the chromatin accessibility of over than 6,000 genomic locations were significantly changed 24h after the intake of MA. Over 95% of epigenetic changes happened on distal regulatory elements, which are far away from gene's promoter. Over 5,000 genomic locations significantly lost chromatin accessibility following MA overdose. Genes around these silenced regulatory elements included glutamate ionotropic receptor Gria1 and serotonin receptor Htr2a gene that code for proteins regulating neuronal functions such as synaptic plasticity, memory formation, and cognition. MA overdose also induced the activation of 1,100 regulatory elements in the nucleus accumbens. Interestingly, several genes around these MA-activated regulatory elements, e.g. oligodendrocyte transmembrane protein Cldn11 and homeobox protein Nkx6-2 gene, were highly correlated to glial cells' function, including myelination, axon ensheathment, and oligodendrocyte differentiation. CONCLUSION: The results suggest that MA overdose silences neuronal cells and stimulates glial cells in rat nucleus accumbens.

Willing to present orally: Yes

Financial Support: NIH/NIDA DA034783

Prefix: Dr.

First Name: Anna

Last Name: Moszczynska

Degrees: MA MD Ph.D etc:: M.Sci., Ph.D.

Email: ei2744@wayne.edu

CC Email: anna2m@gmail.com

Company Affiliation: Wayne State University

Mailing Address: Pharmaceutical Sciences Dept.

Address 2: 259 Mack Ave.

City: Detroit

State: MI

Zip/Postal: 48201

Country: United States

Phone: 1-313-577-1257

Sponsor: Dr. Mark Greenwald and Dr. Edythe London

Research Interests: Behavioral Pharmacology,Neurobiology

Date of Membership: 11.16.18 approved

ID: 581
The growth hormone secretagogue receptor 1α (GHS1αR) antagonist JMV2959 differentially impacts high fat food vs. drug reinforcement in male Sprague-Dawley rats

Erik Garcia, University of Texas Medical Branch at Galveston, erikgarcia22@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Other (specify)

Other Drug Category: High fat food, cocaine and oxycodone

Topic: Behavior

Abstract: AIM: The gut-brain peptide ghrelin is of interest in the control of hedonic motivation for food and abused drugs via actions at the growth hormone secretagogue receptor 1a receptor (GHS1aR). In the present studies, the GHS1aR antagonist JMV2959 was employed to test the hypothesis that this system regulates self-administration (SA) of high-fat food (HFF) relative to the psychostimulant cocaine. The efficacy of JMV2959 to suppress drug cue reactivity (attentional bias toward drug-associated stimuli) during abstinence from cocaine SA vs. the opioid analgesic oxycodone SA was also determined. METHODS: Naïve male Sprague-Dawley rats (n=54) were trained to self-administer either HFF pellets (45% fat, 35% carbohydrate, 20% protein by kcal), cocaine (0.25 or 0.75 mg/kg/inf) or oxycodone (0.1 mg/kg/inf) until stability on a fixed ratio FR5 schedule of reinforcement. Rats were freely fed (HFF, cocaine or oxycodone SA) or exposed to food restriction (only HFF SA). JMV2959 (0-2 mg/kg; i.p.) was injected 20 min prior to assessment of HFF or cocaine intake, or drug cue reactivity test sessions. RESULTS: JMV2959 (1.5 mg/kg) reduced HFF intake in food-restricted rats only. JMV2959 did not suppress cocaine intake at any dose tested but did attenuate cocaine-seeking (2 mg/kg) and oxycodone-seeking (1 and 2 mg/kg). CONCLUSION: These results indicate that the GHS1αR antagonist JMV2959 suppresses HFF intake in a negative energy state, but not drug intake, possibly due to reciprocal interactions between the central and peripheral ghrelin systems. Interestingly, JMV2959 suppresses cocaine and oxycodone drug-seeking, suggesting the GHS1αR can be explored to target for relapse–related behaviors driven by cues during recovery across drug classes.

Willing to present orally: Yes

Financial Support: Financial Support: T32 DA007287 (EJG, VDB)], P50 DA033935 (KAC, NCA)

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Kathryn Cunningham

Email Address of Sponsor : kcunning@utmb.edu

Prefix: Dr.

First Name: Erik

Middle Initial: J

Last Name: Garcia

Degrees: MA MD Ph.D etc:: Ph.D

Email: erikgarcia22@gmail.com

CC Email: erikgarcia22@gmail.com

Company Affiliation: University of Texas Medical Branch at Galveston

Mailing Address: 301 University Blvd

Address 2: Center for Addiction Research

City: Galveston

State: TX

Zip/Postal: 77555

Country: United States

Phone: 7202333099

ID: 582
Drug checking services at music festivals and events in British Columbia: A 2018 analysis of results

Karen McCrae, British Columbia Centre on Substance Use, karen.mccrae@bccsu.ubc.ca

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Club/Designer Drugs

Topic: Prevention

Abstract: Aim: Drug checking services have been used since the 1990s in Europe and have become established as an effective public health intervention among people who use drugs (PWUD) in music festival settings. Drug checking allows for the identification of unexpected adulterants in the drug supply and may help to prevent unintentional overdoses. During the summer of 2018, the British Columbia (BC) Centre on Substance Use collaborated with several community organizations to provide this service at festivals and events in BC, Canada. The objective of this study was to assess local drug market components in this setting. Methods: From July to September 2018, we provided drug checking at four different events throughout the region (Bass Coast, Electric Love, Vancouver Pride and Rifflandia) using a Fourier Transform Infrared (FTIR) spectrometer and fentanyl immunoassay strip method in tandem. Results were immediately relayed to clients onsite. We measured the concordance between expected substance as reported by the client to the results from the FTIR/test strip analysis. Results: During the service period, a total of 336 drug checks were completed. Most samples tested were expected by clients to be psychedelics (69.3%) or stimulants (19.6%). Of the 233 psychedelic samples, 197 (84.5%) were found to contain the expected substance. Of the 62 stimulant samples, 61 (98.4%) were found to contain the expected substance. Only one sample tested positive for fentanyl using an immunoassay strip. Conclusion: We found high concordance between the expected substance reported by the client to the results of the FTIR/test strip analysis. Future research should seek to measure changes in drug consumption behaviors, including discarding substances or reducing dosage. Nevertheless, our findings highlight the potential for drug checking services to be incorporated as an additional intervention within a broader set of standard harm reduction services.

Willing to present orally: Yes

Financial Support: Health Canada, City of Vancouver

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Seonaid Nolan

Email Address of Sponsor : seonaid.nolan@bccsu.ubc.ca

Prefix: Ms.

First Name: Karen

Last Name: McCrae

Degrees: MA MD Ph.D etc:: MA

Email: karen.mccrae@bccsu.ubc.ca

CC Email: karen.mccrae@bccsu.ubc.ca

Company Affiliation: British Columbia Centre on Substance Use

Mailing Address: 400-1045 Howe Street

City: Vancouver

State: BC

Zip/Postal: V6Z 2A9

Country: Canada

Phone: 2368885370

ID: 583
A culturally adapted parenting Intervention for Latino/a Immigrant families: Testing implementation feasibility and initial efficacy

Jose Parra-Cardona, University of Texas at Austin, parracar@msu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Prevention

Abstract: Aim: The objective of this presentation is to report the implementation feasibility and initial efficacy of a culturally adapted version of the efficacious parenting intervention known as GenerationPMTO.® Specifically, we report feasibility findings according to overall participant retention rate and quantitative reports of perceived satisfaction provided by parents exposed to the adapted intervention. Efficacy findings consist of parental reports of parenting skills and adolescents' perception of harm of drug use. Methods: Participating Latino/a families had a target youth between 12 and 14 years of age. Descriptive analyses were conducted to analyze levels of attendance and satisfaction with the intervention. We hypothesized high rates of retention of parents attending the intervention, as well as high satisfaction with the adapted intervention. Likewise, we hypothesized significant improvements on quality of parenting practices in the intervention condition, as well as adolescents' increased perceived risk of harm of drug use. Results: An overall 87% participant retention rate was achieved. On a 1-5 satisfaction scale, satisfaction ratings across all parenting groups averaged 4.71 (SD = 0.74). Qualitative findings indicated overall high participant satisfaction with the core parenting components of the intervention, as well as the culturally-focused components. Prevention of drug use was identified as a salient theme by parents. Efficacy findings indicated that when compared to the control condition, parents exposed to the CAPAS-Youth intervention experienced increased improvements on key parenting practices such as parenting warmth (F =13.4, p

Willing to present orally: Yes

Financial Support: NIDA K01DA036747 (JRPC); K05DA015799 (JCA)

Prefix: Mr.

First Name: Jose

Middle Initial: R.

Last Name: Parra-Cardona

Degrees: MA MD Ph.D etc:: Ph,D.

Email: parracar@msu.edu

CC Email: rparra@austin.utexas.edu

Company Affiliation: University of Texas at Austin

Mailing Address: 1925 San Jacinto Blvd., Room 3.130F

City: Austin

State: TX

Zip/Postal: 78712

Country: United States

Phone: 5122329215

Membership Year: 2013

Sponsor: Dr. James Anthony and Dr. Fernando Wagner

ID: 584
Patterns of current drug use among past-year medical marijuana users in the United States

Catalina Lopez-Quintero, University of Florida, catalina.lopez@mail.huji.ac.il

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Other Drug Category: Marijuana/Cannabinoids

Topic: Epidemiology

Abstract: Aim: While drug use patterns of the heterogeneous group of marijuana users have been extensively studied, less is known about those patterns among marijuana users who exclusively use marijuana for medical reasons. This study aims to fill this gap by assessing the past-month prevalence and correlates of use of multiple drugs among medical marijuana users. Methods: Data was derived from the 2015-2017 National Survey on Drug Use and Health (NSDUH) involving a sample of 1,464 adults (18+ years old), who used marijuana exclusively for medical reasons in the past year. Prevalence of current (past-month) nicotine use, heavy alcohol use, cocaine use, and analgesic, stimulants or tranquilizers misuse was assessed. Multivariable logistic regression models examined the correlates of current use while adjusting for multiple confounders (e.g., age, race). Analysis weights with Taylor series linearization were applied to accommodate for the complex sampling design. Results: Among past-year medical marijuana users, 41.4% were current cigarette users, 9.9% were current heavy alcohol users, 2.5% were current cocaine users, and 2.4%, 1.2%, and 1.6% misused pain relievers, stimulants, and tranquilizers in the past month, respectively. Current cigarette use was associated with living in poverty (aOR: 2.4; CI: 1.8;3.1) and being Non-Hispanic White (aOR: 1.9; CI: 1.1;3.0) or Non-Hispanic Black (aOR: 1.9; CI: 1.0;3.5) relative to being Hispanic. Current analgesic misuse was associated with being non-Hispanic-White (aOR: 4.1; CI: 1.1;15.8) relative to being Hispanic. Conclusions: The prevalence of current cigarette smoking is higher among medical marijuana users than among the general US adult population (23.8%). This finding underscores the need to incorporate smoking cessation interventions when medical marijuana is prescribed or recommended, particularly for low-income individuals. The high occurrence of prescription medication misuse among Non-Hispanic Whites medical marijuana users suggest that targeted interventions are needed to reduce the risks associated with polydrug use.

Willing to present orally: Yes

Financial Support: This research was supported by the National Institute on Drug Abuse Mentored Research Scientist Development Award (K01DA046715). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Prefix: Dr.

First Name: Catalina

Last Name: Lopez-Quintero

Degrees: MA MD Ph.D etc:: M.D., Ph.D.

Email: catalina.lopez@mail.huji.ac.il

CC Email: catalinalopezqui@ufl.edu

Company Affiliation: University of Florida

Mailing Address: 1713 NW 71 ST

City: Gainesville

State: FL

Zip/Postal: 32605

Country: United States

Phone: (786) 458-4103

Membership Year: 2013

Sponsor: Dr. James Anthony and Dr. Fernando Wagner

Research Interests: Epidemiology,Prevention

ID: 585
Behavioral and health consequences of cannabis and tobacco co-use among cannabis-using young adults

Carolyn Wong, Children's Hospital Los Angeles, CaWong@chla.usc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Drug Interactions

Abstract: Aims: Cannabis and tobacco (C&T) co-use is significantly associated with greater behavioral/health risks compared to separate use of either substance, including increased driving while under the influence of cannabis and higher levels of dependence. While young adults have the highest rate of C&T co-use in the US compared to other age groups, research is needed to better understand the heterogeneity of young adult co-users in terms of use practices and associated consequences. Currently, we 1) describe the C&T co-use behaviors among cannabis-using young adults; and 2) investigate how consistent and inconsistent C&T co-use is related to recent C&T practices and health outcomes. Methods: 366 cannabis-using young adults (aged 18 to 26) comprising 210 Medical Cannabis Patients (MCP) and 156 Non-Patient Users (NPU) were followed annually between 2014 to 2018 in Los Angeles. Consistent Co-users were those who reported C&T co-use across the first three waves of data while Inconsistent Co-users reported switching in and out of co-use. Analyses tested group differences in socio-demographic characteristics and wave 4 outcomes such as recent cannabis use practices (including dab use), tobacco use, condom-less sex, driving under influence of cannabis and DSM V criteria for cannabis dependence.
Results/Conclusions: C&T co-use declined steadily from 90% at baseline to 79% by wave 4. Consistent co-users initiated cannabis and cigarettes at a significantly younger age, were more likely to endorse using cannabis for recreational reasons, reported higher quantity of daily cannabis use, were more likely to report driving while under the influence of cannabis, and scored higher on the DSM-V cannabis dependence scale compared to inconsistent co-users. While no overall escalation of C&T co-use is observed, persistent C&T use may be associated with poor behavioral and health outcomes. Findings highlight the need for understanding of the underlying causes and motivations for persistent C&T co-use.

Willing to present orally: Yes

Financial Support: 2R01DA034067-06A1

Name of Sponsor (If you are NOT) a CPDD Member: Ekaterina Fedorova

Email Address of Sponsor : evf26@drexel.edu

Prefix: Dr.

First Name: Carolyn

Last Name: Wong

Degrees: MA MD Ph.D etc:: Ph.D

Email: CaWong@chla.usc.edu

Company Affiliation: Children's Hospital Los Angeles

Mailing Address: 5000 Sunset Blvd

City: Los Angeles

State: CA

Zip/Postal: 90027

Country: United States

Phone: (323) 361-8427

ID: 586
Rapid initiation of buprenorphine/naloxone to optimize MAT utilization in Philadelphia

Cecile Denis, University of Pennsylvania, cdenis@pennmedicine.upenn.edu

---

Abstract Category: Program Descriptions

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM: Philadelphia is the epicenter of opioid crisis. Despite the prevalence of opioid use disorder, approximately 27% of the City's medication assisted treatment (MAT) capacity goes unused. Here, we describe a recent CDC-funded project that will test the ability of a mobile treatment team to successfully initiate treatment in the community and link individuals to long-term providers METHODS: 125 participants at high risk of overdose will be recruited. A community-based mobile team led by a nurse practitioner will deliver a "transitional" (one month) course of treatment with buprenorphine/naloxone while providing peer counseling and case management as a method for engagement in long-term, evidence-based treatment. By reducing time and geographic barriers to treatment and the control of withdrawal symptoms, the intervention will provide a one-month opportunity to link participants to an appropriate, ongoing treatment provider. A comparison group will consist in 125 individuals who will be recruited as they seek treatment from the City's existing assessment and linkage centers (BAC/CRCs). RESULTS: We will evaluate the impact of the mobile, transitional MAT intervention on (1) its ability to engage participants in targeted, existing MAT treatment slots at 1- and 6-month post-enrollment and, (2) its impact on overdoses and continued drug use at 6-month post-enrollment. We will also document the program and participant costs of delivering and participating in the intervention. CONCLUSION: The findings will provide the opportunity to more accurately estimate the impact of full utilization of the current MAT treatment system in Philadelphia as well as the potential impact of expanding the MAT system to accommodate more individuals at high risk of overdose.

Willing to present orally: Yes

Financial Support: CDC R01CE003049

Name of Sponsor (If you are NOT) a CPDD Member: Kyle Kampman

Email Address of Sponsor : kampman@pennmedicine.upenn.edu

Prefix: Dr.

First Name: Cecile

Middle Initial: M

Last Name: Denis

Degrees: MA MD Ph.D etc:: Ph.D.

Email: cdenis@pennmedicine.upenn.edu

Company Affiliation: University of Pennsylvania

Mailing Address: 3535 Market Street

Address 2: Suite 500

City: Philadelphia

State: PA

Zip/Postal: 19104

Country: United States

Phone: 215-746-3806

Membership Year: 2012

Sponsor: Dr. Charles O?Brien. M.D.

ID: 587
Recent incarceration and opioid-related risk in rural areas: Opportunities for harm reduction in the criminal justice system

Elizabeth Waddell , Oregon Health & Science University, waddelle@ohsu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM: Services for opioid use disorder (OUD) are scarce in rural areas, and overdose is the leading cause of death after release from incarceration. Law enforcement and corrections are key stakeholders in combatting OUD and its consequences. This mixed-methods study examines the relationship between recent incarceration and opioid-related risks among people with high-risk drug use in rural Oregon. METHODS: We recruited and surveyed people with high-risk drug use in rural Oregon through syringe services programs and community outreach (N=101); 52 completed a semi-structured interview. Participants received HCV/HIV testing and peer support services. We compared participants with and without incarceration in the previous 6 months on substance use, infectious disease and overdose risk, and access to treatment. RESULTS: 52% of respondents reported recent incarceration. Incarceration was associated with homelessness and witnessing an overdose (Table). Preliminary Findings from Oregon HOPE Survey, Recently Incarcerated Participants vs. Not, Fall, 2018 Incarcerated past 6 months (N=52) Not incarcerated past 6 months (N=48) P Value % % Homeless past 6 months 79 60 .04 Ever seen someone overdose 85 60 Ever overdosed? 25 18 .28 Currently have naloxone with you or at home 46 67 .14 Past 30 days: Injected drugs 87 90 .64 Past 30 days: used syringe or needle used by somebody else 47 41 .63 Ever tested HIV 71 79 .20 Ever tested HCV 75 79 .37 Ever gotten buprenorphine maintenance medication 15 18 .36 In qualitative interviews, none reported receiving medications for OUD (MOUD) or withdrawal in jail, or naloxone at release. Some described barriers to accessing MOUD while incarcerated. CONCLUSION: Incarceration was associated with homelessness and witnessing an overdose, and 25% of recently incarcerated participants had experienced overdose. Findings highlight a role for public safety in naloxone distribution, initiation of MOUD, and linkage to community treatment.

Willing to present orally: Yes

Financial Support: UG3DA044831

Name of Sponsor (If you are NOT) a CPDD Member: P. Todd Korthuis

Email Address of Sponsor : korthuis@ohsu.edu

Prefix: Dr.

First Name: Elizabeth

Middle Initial: N

Last Name: Waddell

Degrees: MA MD Ph.D etc:: MA, PhD

Email: waddelle@ohsu.edu

Company Affiliation: Oregon Health & Science University

Mailing Address: 3181 SW Sam Jackson Park Rd

City: Portland

State: OR

Zip/Postal: 97239

Country: United States

Phone: 5034943732

Sponsor: Dr. Dennis McCarty and Dr. P. Todd Korthuis

Research Interests: Health Services,Policy

Date of Membership: applying for Assoc. 1.1.19

ID: 588
Opioid prescribing prior to heroin overdose: A national cohort study

Marc Larochelle, Boston University School of Medicine, Marc.LaRochelle@bmc.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: AIM: Since 2010, heroin has accounted for an increasing proportion of opioid overdose deaths. The association between receipt of prescription opioids, including long-term opioid therapy (LTOT), and initiation of and harms related to heroin use are unclear. We aimed to describe individuals' opioid prescribing trajectories in the year prior to a heroin overdose. METHODS: We conducted a retrospective cohort study using the OptumInsight Clinformatics, a national claims database. We included individuals aged 18 years and older who experienced a heroin overdose from January 2010 through June 2017 using ICD-9 codes from emergency department or inpatient claims. We required one year of contiguous enrollment prior to heroin overdose. We examined opioid prescribing characteristics in the year prior to death. We used chi-squared tests to compare results stratified by age over and under 26 years. RESULTS: We identified 3,183 individuals with a heroin overdose; 2,228 (70%) were male and 1,696 (53%) were under age 26 years. 1,345 individuals (42%) received a prescription opioid in 12 months prior to heroin overdose, and 346 (11%) had an active opioid prescription in the week prior to overdose. 406 individuals (13%) received LTOT in the 12 months prior to overdose, and 213 (6.7%) discontinued LTOT at least one week prior to overdose. 60 individuals (3.5%) and 346 individuals (23%) under 26 years and 26 years or older respectively received LTOT in 12 months prior to overdose (p CONCLUSION: In the year prior to heroin overdose, a minority of individuals received prescription opioids, LTOT, and discontinued LTOT, although these relationships are more common among individuals 26 years and older. Approaches to reduce heroin-related morbidity and mortality should differ by age.

Willing to present orally: Yes

Financial Support: Supported by Centers for Disease Control and Prevention grant U01CE002780

Name of Sponsor (If you are NOT) a CPDD Member: Amy Bohnert

Email Address of Sponsor : amybohne@med.umich.edu

Prefix: Dr.

First Name: Marc

Last Name: Larochelle

Degrees: MA MD Ph.D etc:: MD, MPH

Email: Marc.LaRochelle@bmc.org

CC Email: marcrlarochelle@gmail.com

Company Affiliation: Boston University School of Medicine

Mailing Address: 801 Massachusetts Avenue, 2nd Floor

City: Boston

State: MA

Zip/Postal: 02118

Country: United States

Phone: 6174146642

ID: 589
Retention on extended-release naltrexone for patients with opioid use disorder: Predictive value of an inter-dose evaluation after initial injection

Paolo Mannelli, Duke University School of Medicine, paolo.mannelli@duke.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM Naltrexone for extended-release injectable suspension (XR-NTX) can prevent relapse following opioid discontinuation. A randomized, outpatient clinical trial (N=378) evaluated multiple induction regimens for transition to XR-NTX (3 XR-NTX injections at 4-week intervals). Transition rates were similar across regimens; 44.4% of participants received an initial XR-NTX injection. There were 67% of participants who received an initial injection received a second injection and 77% of participants who received a second injection received a third injection. We evaluated predictors of XR-NTX retention after the initial injection. METHODS This post hoc analysis evaluated the association of withdrawal (Clinical Opiate Withdrawal Scale [COWS] and Subjective Opiate Withdrawal Scale [SOWS]) and cravings (visual analog scale [VAS]) scores, self-reported opioid use, self-reported cocaine use, and urine drug screen for opioids (UDT) on Day 15 (n=151, 7 days after initial XR-NTX injection) with receipt of the second injection (Day 36, n=111) for participants who received the initial XR-NTX injection (Day 8, n=168). Logistic regression analyses were controlled for primary opioid (heroin/prescription opioid) and administration route. RESULTS For participants who received an initial XR-NTX injection, COWS/SOWS/VAS scores at Day 15 were very low (median=2.0, 3.0, 2.0, respectively) and not associated with receipt of the second XR-NTX injection on Day 36. Participants who tested positive for opioids by UDT or did not attend the Day 15 visit (imputed to have positive UDT) had significantly lower odds of receiving a second injection (p=0.0093, estimated OR [95% CI]=0.382 [0.184, 0.787]). Self-reported use of cocaine or opioids at Day 15 was not a significant predictor. CONCLUSION Our findings suggest that for patients on XR-NTX, clinical contact and UDT monitoring during the first inter-dose period may be important for predicting outcome and encouraging adherence.

Willing to present orally: Yes

Financial Support: Funded by Alkermes, Inc.

Name of Sponsor (If you are NOT) a CPDD Member: Loretta Finnegan

Email Address of Sponsor : finnegal337@gmail.com

Prefix: Dr.

First Name: Paolo

Last Name: Mannelli

Degrees: MA MD Ph.D etc:: M.D.

Email: paolo.mannelli@duke.edu

Company Affiliation: Duke University School of Medicine

Mailing Address: 416 Hogan Woods Circle

City: Durham

State: NC

Zip/Postal: 27516

Country: United States

Phone: (919) 259-9202

Fax: 919-668-5418

Membership Year: 2014

Sponsor: Dr. David Gorelick PhD and Dr. LiTzy Wu Sc.D

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 590
Medical marijuana use and trouble with the law: Does living in a state with a medical marijuana law modify the relationship?

Alexander Perlmutter, Columbia University, asp2183@cumc.columbia.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Epidemiology

Abstract: Aim:The social and health consequences of trouble with the law resulting from marijuana use are well-established. We hypothesized that medical marijuana users had lower prevalences of trouble with the law than recreational users, and that prevalences were lower if users were living in a medical marijuana law (MML) versus non-MML state. Methods:We analyzed a cross-sectional, nationally representative sample of 38,252 people ages 12-64 reporting past-year marijuana use in the 2013-2017 National Survey on Drug Use and Health, which included an indicator of MML state. Medical marijuana users were people whose doctor recommended their marijuana use. We regressed self-reported past-year trouble with the law resulting from marijuana use on past-year use (all-recreational, all-medical, or mixed medical/recreational), testing associations by whether users lived in MML states, adjusting for age, sex, race, and frequency of marijuana use. Results:Among past-year marijuana users, all-recreational marijuana use was more prevalent (88.4%) than all-medical (7.6%) and mixed medical/recreational use (4.5%); 1.9% reported past-year trouble with the law. Unadjusted prevalences of trouble with the law for all-medical and mixed users were 0.88 (95%CI=0.6-1.4) and 2.0 (95%CI=1.3-2.9) times the prevalence for all-recreational users. In non-MML states, adjusted prevalences of trouble with the law for all-medical and mixed users were 2.5 (95%CI=1.1-5.5) and 2.7 (95%CI=1.7-4.5) times the prevalence for all-recreational users in non-MML states. In MML states, adjusted prevalences of trouble with the law for all-recreational, all-medical, and mixed users were 0.7 (95%CI=0.6-0.9), 0.7 (95%CI=0.4-1.2), 1.2 (95%CI=0.7-2.0) times the prevalence for all-recreational users in non-MML states. Conclusion:Contrary to our hypothesis, the prevalence of trouble with the law was greater for all-medical versus all-recreational users in non-MML states. The former may exhibit different risk behaviors or be unaware that medical use is not permitted in their state. Future studies should assess whether differences persist in

Willing to present orally: Yes

Financial Support: T32DA031099, R01DA037866, K01DA045224

Prefix: Mr.

First Name: Alexander

Last Name: Perlmutter

Degrees: MA MD Ph.D etc:: MPH

Email: asp2183@cumc.columbia.edu

Company Affiliation: Columbia University

Mailing Address: 722 West 168th St. Room 720.10

City: New York

State: NY

Zip/Postal: 10032

Country: United States

Phone: 703-336-9067

Biography: Doctoral Student

Membership Year: 2018

Sponsor: Dr. Silvia Martins, PhD

Research Interests: Epidemiology,Policy

ID: 591
Trends in overdose and suicide following Florida's opioid prescribing reform

Kenneth Feder, Johns Hopkins Bloomberg School of Public Health, kfeder1@jhu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Policy

Abstract: Aim: Opioid prescribing restrictions may help reduce overdose deaths. However, concerns have been raised that prescribing restrictions will lead to undertreatment of pain, and increases in suicide death. In 2011, Florida established a Prescription Drug Monitoring Program and adopted new regulations for independent pain-management clinics. Other research shows opioid prescriptions fell, particular from high volume prescribers and to high utilization patients (Rutkow et al., 2015). This reseach examined the effect of those prescribing reforms on drug overdose deaths and suicide deaths. Methods: Florida's post-reform monthly mortality rates for 1) drug-involved deaths and 2) suicides by means other than poisoning were compared to a counterfactual estimate of what those rates would have been absent reform. The counterfactual was estimated using a Bayesian structural time-series model based on pre-reform mortality trends in Florida and other similar states. Results: By December 2013, drug overdose deaths were down -17% (95% CI, -21% to -12%), but suicide deaths were unchanged compared to what would be expected in the absence of reform. Conclusion: A Florida opioid prescribing reform, that reduced the volume of opioid prescriptions, substantially reduced drug overdose deaths but does not appear to have had any affect on suicide deaths. Reference: Rutkow, L., Chang, H.-Y., Daubresse, M., Webster, D. W., Stuart, E. A., & Alexander, G. C. (2015). Effect of Florida's Prescription Drug Monitoring Program and Pill Mill Laws on Opioid Prescribing and Use. JAMA Internal Medicine, 175(10), 1642. https://doi.org/10.1001/jamainternmed.2015.3931

Willing to present orally: Yes

Financial Support: This research is supported by a NIDA NRSA (5F31DA044699).

Name of Sponsor (If you are NOT) a CPDD Member: Eric Strain

Email Address of Sponsor : estrain1@jhmi.edu

Prefix: Mr.

First Name: Kenneth

Middle Initial: A.

Last Name: Feder

Email: kfeder1@jhu.edu

Company Affiliation: Johns Hopkins Bloomberg School of Public Health

Mailing Address: 3024 Saint Paul St

City: Baltimore

State: MD

Zip/Postal: 21218

Country: United States

Phone: 215-266-3615

ID: 592
Patterns of opioid withdrawal in patients transitioning from opioid use or buprenorphine treatment to extended-release injectable naltrexone

Antoine Douaihy, UPMC-Western Psychiatric Hospital, douaihya@upmc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM Before initiating extended-release naltrexone (XR-NTX), a monthly μ-opioid receptor antagonist, a 7-10 day opioid-free period is recommended. The time course and severity of symptoms during this period may vary based on management strategy and patient characteristics. We performed a cross-study comparison of the temporal pattern of opioid withdrawal during induction onto XR-NTX between two patient populations. METHODS This post-hoc analysis evaluated 2 clinical trials investigating induction onto XR-NTX with standing ancillary medications and counselling ± oral NTX/ buprenorphine (BUP). Study 1 participants (N=378) had active opioid use (excluding BUP) prior to entry into an outpatient study. Study 2 participants (N=101) were treated with BUP (≥3months) prior to entry into a hybrid residential/outpatient study. Treatment arms were combined within each study and the pattern of withdrawal was compared at induction (Days 1-7), XR-NTX injection (Day 8), and following XR-NTX injection (Day 9) between studies. RESULTS Mean peak clinical opiate withdrawal scale (COWS) scores were uniformly mild. Mean peak COWS scores decreased over time for participants in Study 1 (Day 1-7: 7.09; Day 8: 4.71; Day 9: 2.66) and were stable for participants in Study 2 (Day 1-7: 5.50; Day 8: 6.41; Day 9: 5.20). The temporal pattern of withdrawal from Day 1-7 was significantly different between the two studies (pCONCLUSION In this post-hoc, cross-study comparison, XR-NTX induction regimens were generally well tolerated. Participants with opioid use prior to study entry were more likely to experience earlier maximum peak COWS scores followed by a gradual decline, whereas BUP-treated participants were more likely to experience later maximum peak COWS scores.

Willing to present orally: Yes

Financial Support: Funded by Alkermes, Inc.

Name of Sponsor (If you are NOT) a CPDD Member: Loretta Finnegan

Email Address of Sponsor : finnegal337@gmail.com

Prefix: Dr.

First Name: Antoine

Last Name: Douaihy

Degrees: MA MD Ph.D etc:: MD

Email: douaihya@upmc.edu

Company Affiliation: UPMC-Western Psychiatric Hospital

Mailing Address: 3811 O'Hara St

City: Pittsburgh

State: PA

Zip/Postal: 15213

Country: United States

Phone: 412-512-0641

Sponsor: Dr. Todd Korthuis and Dr. Brooke Molina

Research Interests: Psychiatric/Medical Morbidity,Treatment

Date of Membership: applying for Reg. 1.1.19

ID: 593
Analyzing parental separation and opioid misuse among justice-involved children

Dylan Shaw, University of Florida: STOMP Lab, dylanshaw1997@ufl.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Adolescent

Abstract: Aim. To prevent opioid-related overdose among high risk youth, research on the predictors of opioid misuse (OM) initiation among justice-involved children (JIC) is needed. Parental separation, one of the items in the Adverse Childhood Experiences instrument, is prevalent among JIC and linked to substance abuse. However, no study has examined the association between parental separation and OM among JIC. It is hypothesized that JIC who experienced parental separation will have a higher likelihood of meeting criteria for past-30 day OM than those who did not experience parental separation. Methods: The data in this paper was obtained from the Florida Department of Juvenile Justice (FLDJJ). Cross-sectional data on 79,960 JIC from FLDJJ were examined. To test the hypothesis, multivariate logistic regression analyses were employed. The control variables included living arrangement, race, gender, age, family income, history of somatic complaints, history of mental problems, number of adjudicated felonies, and school enrollment status. Results: Over 2,000 JIC in the sample met criteria for past-30 day OM. Over 50% of those who met criteria for past-30 day OM experienced parental separation while 25% of those who were non-past-30 day users experienced parental separation. JIC who experienced parental separation were 33.4% as likely to report current OM as those who did not experience parental separation. Conclusion: The findings indicated that the relationship between parental separation and risk for OM is nuanced, significant only after adjusting for family structure. These nuances must be explored further in future research. Effective strategies to reduce adolescent OM should adopt trauma informed models. The juvenile justice community should implement programs that foster healthy coping skills among JIC to prevent substance abuse and related problems.

Willing to present orally: Yes

Financial Support: This research was supported by the University of Florida Substance Abuse Training Center in Public Health from the National Institute of Drug Abuse of the National Institutes of Health under award number T32DA035167 (PI: Dr. Linda B. Cottler). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health or the Florida Department of Juvenile Justice.

Name of Sponsor (If you are NOT) a CPDD Member: Linda B. Cottler

Email Address of Sponsor : lbcottler@ufl.edu

Prefix: Mr.

First Name: Dylan

Middle Initial: Elijah

Last Name: Shaw

Email: dylanshaw1997@ufl.edu

CC Email: MicahJohnson3000@gmail.com

Company Affiliation: University of Florida: STOMP Lab

Mailing Address: 2004 mowry road

City: GAINESVILLE

State: FL

Zip/Postal: 32610

Country: United States

Phone: 8503213194

ID: 594
The pharmacokinetics of a recombinant humanized anti-cocaine monoclonal antibody in both male and female rats

Jordan Marckel, University of Cincinnati, College of Medicine, marckeja@mail.uc.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Stimulants

Topic: Treatment

Abstract: AIM Currently there are no FDA approved pharmacotherapies to treat cocaine addiction. We have developed a humanized anti-cocaine monoclonal antibody (mAb) designated h2E2. We have previously determined that h2E2 binds to cocaine and prevents its distribution into the brain in mice/rats and has a long terminal elimination half-life of 7.1 days. However, all previously published studies have been done using male animals and a single dose of 120 mg/kg. There has been a recent push by the FDA to include female animals in preclinical studies, as the human clinical trials will include female participants. Additionally, we have not yet determined if the pharmacokinetics of h2E2 are dose-dependent. Therefore, we have characterized the pharmacokinetics of h2E2 in male and female rats at varying doses of h2E2. METHODS Three groups of 7 males and 7 females were administered intravenously with h2E2 over 60 minutes. Each cohort was either given a dose of 40, 120, or 360 mg/kg dose of h2E2. A control group consisting of 3 animals per sex received a vehicle. Blood samples were collected via the jugular vein from all animals at designated time points ranging from 5 minutes to 672 hours. Plasma concentrations of h2E2 were measured using a validated ELISA assay. RESULTS/CONCLUSION There were no measurable h2E2 concentrations in the vehicle control animals. There were no notable differences between AUC and Cmax between male and female rats across all dose levels. The AUC and Cmax increased as the dose of h2E2 increased in an approximate dose proportional manner across all dose levels in both male and female rats. The mean terminal elimination half-life values ranged approximately 6 to 9 days in both male and female rats across all dose levels. Based on the results of this study, there is no discernable difference between male and female rats with the pharmacokinetics of h2E2.

Willing to present orally: No

Financial Support: Supported by NIDA grant U01DA039550

Prefix: Ms.

First Name: Jordan

Last Name: Marckel

Degrees: MA MD Ph.D etc:: BS

Email: marckeja@mail.uc.edu

Company Affiliation: University of Cincinnati, College of Medicine

Mailing Address: 41 Kyles Lane

Address 2: Unit 2

City: Cincinnati

State: OH

Zip/Postal: 41075

Country: United States

Phone: 2606685980

Membership Year: 2018

Sponsor: Dr. Andrew B. Norman, PhD

Research Interests: Behavioral Pharmacology,Treatment

ID: 595
Preliminary analyses of benefits and costs of family planning interventions for women enrolled in medication treatment for opioid use disorder

Heidi Melbostad, University of Vermont, hmelbost@uvm.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Perinatal

Abstract: AIM: The average cost of acute medical care for an opioid-exposed newborn diagnosed with neonatal abstinence syndrome (NAS) is a staggering $59,000 per birth. Less than half of women receiving medication treatment for opioid use disorder (OUD) who do not want to get pregnant report any contraceptive use. The aims of this study are to generate preliminary estimates of the reduction in pregnancy risk and intervention costs associated with an ongoing clinical trial of two interventions designed to increase prescription contraceptive use among women enrolled in medication treatment for OUD and at risk of unintended pregnancy. METHODS: One hundred and twenty-four women have been randomly assigned to one of three study conditions: (1) usual care; (2) usual care + World Health Organization (WHO) contraception protocol; or (3) usual care+WHO contraception protocol+financial incentives for visit attendance. For this preliminary secondary analysis, published estimates of contraceptive effectiveness were applied to contraceptive use over the 12-month study period to estimate the reduction in pregnancy risk. Intervention costs were determined by obtaining unit resource expenditures and institutional-level economic costs within both intervention conditions. RESULTS: Only 23% of usual care reported any prescription contraceptive use compared to 64% of WHO and 78% of WHO+incentives. Consistent with this, there were 22%, 47% and 65% decreases in pregnancy risk across usual care, WHO and WHO+incentives conditions. Despite women in the incentivized WHO condition attending more than twice as many visits as women in the WHO condition, the total cost for each intervention condition was similar. CONCLUSION: Preliminary results indicate both intervention conditions increase contraceptive use and decrease pregnancy risk compared to usual care. Breakdown of cost by intervention condition suggestions the WHO contraception protocol+financial incentives condition may be the most cost effective in the full sample.

Willing to present orally: Yes

Financial Support: US National Institute on Drug Abuse Grants: R01 DA036670 and T32 DA007242. The National Institute of General Medical Sciences Grant: P20 GM103644.

Prefix: Ms.

First Name: Heidi

Middle Initial: S

Last Name: Melbostad

Degrees: MA MD Ph.D etc:: M.S.

Email: hmelbost@uvm.edu

Company Affiliation: University of Vermont

Mailing Address: 300 S. Winooski Ave.

Address 2: Unit 3A

City: Burlington

State: VT

Zip/Postal: 5401

Country: United States

Phone: 8026560880

Membership Year: 2014

Sponsor: Dr. Sarah Heil, Ph.D

ID: 596
Racial/ethnic and gender differences in risk for past-30 day opioid misuse: A statewide sample of the Florida juvenile justice system

Hansberry Pierre, University of Florida: STOMP Lab, hansberry@ufl.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Ethnic Differences

Abstract: Aim: The mainstream narrative surrounding the opioid misuse epidemic has largely excluded minority communities and adolescents in the criminal justice system, which calls into question the equitable allocation of federal and state resources for substance abuse treatment. Research on the racial/ethnic and gender differences in risk for opioid misuse is needed, particularly among juvenile in the correctional system. This study is the first to examine the association between race and gender and opioid misuse among adolescents in the Florida criminal justice system. Method: Cross-sectional data on 79,960 JIC from the Florida Department of Juvenile Justice (FLDJJ) were examined. The FLDJJ criteria for past-30 day opioid use included official reports of illicit opioid use or nonmedical use of prescription opioids, such as urine test evidence. Multivariate logistic regression analyses were employed while adjusting for covariates. Results. Compared to Black males, White males were 7.7 times as likely to misuse opioids in the past-30 days and white females were more than 11 times as likely. Latinx males were 3.8 times as likely and Latinx females were 4.5 times as likely as Black males. Conclusion. White females, White males, and Latinx females were more likely to currently misuse opioids. It is less likely that Blacks are protected and more likely that Black communities suffer from different substance abuse crises. As resources to address the opioid crisis are distributed, stakeholders must ensure that resources are equitably allocated to Latinx communities and that treatment programs in correctional settings are inclusive of women. Also, as stakeholders address the opioid misuse crisis, treatment resources must not be detracted from other drugs that are more prevalent in minority communities.

Willing to present orally: Yes

Financial Support: This research was supported by the National Institute of Drug Abuse T32 training grant at the UF Substance Abuse Training Center in Public Health from the National Institutes of Health under award number T32DA035167 (PI: Dr. Cottler) and by the University of Florida Graduate School PhD Preparatory Project (PI: Dr. Henry Frierson). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health or the Florida Department of Juvenile Justice.

Name of Sponsor (If you are NOT) a CPDD Member: Linda B. Cottler

Email Address of Sponsor : lbcottler@ufl.edu

Prefix: Mr.

First Name: Hansberry

Last Name: Pierre

Email: hansberry@ufl.edu

CC Email: micahjohnson3000@gmail.com

Company Affiliation: University of Florida: STOMP Lab

Mailing Address: 2004 Mowry RD

City: Gainesville

State: FL

Zip/Postal: 32611

Country: United States

Phone: 352-273- 9307

ID: 597
Current unmet addiction treatment needs among reproductive aged women

Caitlin Martin, VCU School of Medicine, Dpt OBGYN, caitlin.martin@vcuhealth.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: All substance use disorders included

Topic: Sex Differences

Abstract: Aim Pathways into and out of addiction differ by gender. We report the unmet substance use disorder (SUD) treatment needs among reproductive aged women using the 2015-2017 National Survey on Drug Use and Health (NSDUH) with a focus on pregnancy and parenting status. Methods Women aged 18-44 in need of addiction treatment included those meeting DSM criteria or expressing treatment need or both. Treatment receipt was defined by self-report. Population adjusted frequencies and proportions were calculated, and comparisons by pregnancy and parenting status were done using chi squared tests. Multivariable logistic regression was done to describe factors associated with SUD treatment receipt. Results Among 429,381,394 reproductive aged women, 9% had a SUD treatment need (7% alcohol; 3% illicit drug) of whom only 9% received any treatment. Neither pregnant nor parenting women had higher treatment need (14%) than pregnant (8%) or parenting (6%) women ($p < 0$ .0001). Slightly more pregnant (13%) than parenting (10%) or neither pregnant nor parenting (9%) women received SUD treatment (p=0.06). Fewer women (7%) received AUD treatment (12% pregnant, 8% parenting, 7% neither pregnant nor parenting; p=0.02). Treatment receipt among pregnant women did not vary by trimester for any substance. In the multivariable analyzes, parenting status did not predict treatment receipt, but having public insurance (AOR 2.0; 95% CI 1.3-3.1), being arrested (AOR 3.3; 95% CI 2.3-4.7) and having government assistance (AOR 1.5; 95% CI 1.1-1.4) did; employed women were less likely to have received treatment (AOR 0.7; 95% CI 0.44-0.97). Conclusions Even though pregnant women are recognized as a special population with regards to SUD treatment access, only a minority receive any treatment. Expanding gender informed services for women with SUDs across the lifecourse is needed.

Willing to present orally: Yes

Financial Support: The authors have no financial disclosures to disclose.

Name of Sponsor (If you are NOT) a CPDD Member: Mishka Terplan

Email Address of Sponsor : mishka.terplan@vcuhealth.org

Prefix: Dr.

First Name: Caitlin

Middle Initial: E

Last Name: Martin

Degrees: MA MD Ph.D etc:: MD, MPH

Email: caitlin.martin@vcuhealth.org

CC Email: caitlin.martin@vcuhealth.org

Company Affiliation: VCU School of Medicine, Dpt OBGYN

Mailing Address: 9532 Oldhouse Drive

City: Richmond

State: VA

Zip/Postal: 23238

Country: United States

Phone: 7573197366

ID: 598
Culturally adapted motivational interviewing and community reinforcement for substance use disorders among treatment-seeking american indian adults: Predictors of abstinence

Katherine Hirchak, Center on Alcoholism, Substance Abuse and Addictions, khirchak@unm.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Treatment

Abstract: Background: Compared with the general US population, American Indian (AI) adults have some of the highest alcohol abstinence rates. Despite this, AI communities face disproportionate rates of negative consequences related to substance misuse. Research suggests that culture and mental health functioning are important to improved treatment outcomes among AI adults. Motivational Interviewing and Community Reinforcement Approach (MICRA) is designed to improve client motivation to change and was implemented in partnership with a rural reservation community and a Southwest university. The aim of the current study was to examine potential associations between cultural and mental health baseline characteristics with percent days abstinent (PDA) from alcohol and other drugs at the end of the 12-week treatment period. Methods: This secondary data analysis of a RCT includes 79 rural reservation treatment-seeking AI adults with a DSM-V substance use disorder (SUD). Measures used include the Scale of Ethnic Experiences, Native American Microaggressions Scale, Native American Spirituality Scale, and the Beck Depression Inventory. We controlled for baseline substance use and sex. Multiple linear regression was utilized to examine the associations between baseline characteristics and PDA from alcohol and other drugs. Results: The sample was primarily male (68.4%), 32.9 years old (SD=10.1), with a high school education (69.6%). Bivariate correlations demonstrated spirituality was related to higher percent days abstinent from alcohol at 12-weeks post baseline ($p < 0$ .05). Multiple linear regression demonstrated a trend of spirituality being associated with higher PDA from alcohol ($p=0.059$) at 12-weeks post baseline. No significant associations between PDA from other drugs and the pre-specified predictors were found. Conclusion: Although on the trend level and underpowered, preliminary results indicate spirituality may play a role in reducing drinking in AI adults. Future research should continue to explore how spirituality and the cultural tailoring of evidence-based interventions positively impacts treatment outcomes among AI adults, other indigenous people, and in mainstream populations.

Willing to present orally: Yes

Financial Support: NIDA

Name of Sponsor (If you are NOT) a CPDD Member: Kamilla Venner

Email Address of Sponsor : kamilla@unm.edu

Prefix: Dr.

First Name: Katherine

Last Name: Hirchak

Email: khirchak@unm.edu

CC Email: khirchak@unm.edu

Company Affiliation: Center on Alcoholism, Substance Abuse and Addictions

Mailing Address: 2650 Yale Blvd SE, MSC11-6280

City: Albuquerque

State: New Mexico

Zip/Postal: 87106

Country: United States

Phone: 13608885072

ID: 599
Attitudes among pregnant and postpartum women in substance disorder treatment toward using technology-assisted treatment

Alexis Hammond, Johns Hopkins University School of Medicine, ahammon9@jhmi.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: multiple

Topic: Perinatal

Other Topic: technology

Abstract: Aims: Technology-assisted treatment (TAT) using devices with Internet access has the potential to provide innovative and cost-effective treatment of substance use disorders (SUD) and other psychiatric disorders (PD). The purpose of this study is to describe attitudes among pregnant and postpartum women with SUD toward TAT during outpatient and intensive outpatient treatment. Methods: 40 participants at the Center for Addiction and Pregnancy voluntarily completed a 38-question online survey. This report is a descriptive analysis of data collected on demographics, access to technology, attitudes toward TAT, and preferences for content. Results: Participants were women who were 65% single, 42% African American and 42% Caucasian, 95% unemployed, and 64% were at least high school graduates. 68% identified opioids as their substance of choice. 80% of women reported having a cell phone, and among those, 90% reported having a smart phone. 85% had no previous TAT exposure but 80% reported they would be interested in using TAT on their mobile device for both SUD and other PD. Conclusions: These data suggest that despite most patients having no previous TAT exposure, patients would welcome TAT during their treatment. This could allow for the use of a novel, nonpharmacologic therapy which patients could use outside of groups and at home. Further research is needed on implementation of TAT during treatment, and its acceptability among this population.

Willing to present orally: Yes

Financial Support: departmental funds

Prefix: Dr.

First Name: Alexis

Last Name: Hammond

Degrees: MA MD Ph.D etc:: MD, PhD

Email: ahammon9@jhmi.edu

Company Affiliation: Johns Hopkins University School of Medicine

Mailing Address: 5510 Nathan Shock Drive

Address 2: BPRU

City: Baltimore

State: MD

Zip/Postal: 21224

Country: United States

Phone: 6156044050

Membership Year: 2017

Sponsor: Eric Strain

Travel Award: NIDA Diretor 2017

Research Interests: Psychiatric/Medical Morbidity,Treatment

ID: 600
Oxycodone self-administration is blunted during repeated administration of the 5-HT2CR agonist lorcaserin

Christina Merritt, University of Texas Medical Branch, chmerrit@utmb.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Behavior

Abstract: Merritt CR1, Fox RG1, Stutz SJ1, Anastasio NC1, Moeller FG2, and Cunningham KA1 1Center for Addiction Research and Department of Pharmacology and Toxicology, University of Texas Medical Branch, Galveston, TX, USA 2Department of Psychiatry, Virginia Commonwealth University School of Medicine, Richmond, VA, USA AIM The misuse of prescription opioids [e.g., oxycodone (OxyContin®)] can evolve into opioid use disorder (OUD), an acquired brain disorder. We demonstrated that acute pretreatment of the FDA-approved, 5-HT2CR agonist lorcaserin (Belviq®) dose-dependently decreased oxycodone intake in male rats trained on an intravenous oxycodone self-administration (SA) assay. In the present study, we extended these observations to test the hypothesis that the efficacy of lorcaserin to suppress oxycodone SA is sustained upon 10 days of lorcaserin treatment. Given that lorcaserin is DEA-controlled as a Schedule IV substance and is in several clinical studies in OUD and other substance use disorders in humans, we also assessed the abuse liability of lorcaserin in rats trained in oxycodone SA. METHODS Male Sprague-Dawley rats (n=12) were trained to SA oxycodone (0.1 mg/kg/infusion) to stability and then received saline or 1 mg/kg of lorcaserin (2x/day for 10 days). After the morning lorcaserin injection, rats underwent their daily oxycodone SA session; the second daily lorcaserin injection occurred in the afternoon. The abuse liability of lorcaserin (0.1 or 0.5 mg/kg/infusion) was assessed in a separate group of rats (n=4) trained on oxycodone SA; saline or lorcaserin was substituted for oxycodone infusions on test days. RESULTS Repeated, intermittent lorcaserin attenuated oxycodone intake relative to saline-treated rats over the course of 10 days [$F(1,10) = 5.719$, $p < 0.05$]. Neither dose of lorcaserin nor saline supported self-administration. CONCLUSION Repeated lorcaserin treatment consistently suppressed oxycodone intake without evidence of tolerance. Further, lorcaserin did not exhibit abuse potential in this preclinical model. Taken together, these studies provide further evidence for lorcaserin as a viable pharmacotherapy for OUD.

Willing to present orally: Yes

Financial Support: Supported by the NIDA P50 DA033935 and U54 DA038999.

Name of Sponsor (If you are NOT) a CPDD Member: Kathryn A. Cunningham, Ph.D.

Email Address of Sponsor : kcunning@utmb.edu

Prefix: Ms.

First Name: Christina

Last Name: Merritt

Email: chmerrit@utmb.edu

Company Affiliation: University of Texas Medical Branch

Mailing Address: 1428 23rd Street

Address 2: Apartment 2

City: Galveston

State: TX

Zip/Postal: 77550

Country: United States

Phone: 7572708127

ID: 601
Prevalence of substance misuse in a sample of primary care patients

David Pomm, Virginia Commonwealth University, dpomm@vcu.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Other

Other Topic: Prevalence

Abstract: AIM: Substance misuse and substance use disorders (SUDs) affect millions of Americans and are core risk factors for morbidity and mortality (Smith et al., 2015). Of the 21 million American adults meeting SUD criteria in 2015, only 10.8% utilized specialty treatment programs (Park-Lee et al., 2016). Substance misuse/SUDs are often associated with medical problems (Degenhardt & Hall, 2012), giving medical clinics an opportunity to identify substance use and provide timely interventions. Given primary care transformation efforts aimed at integration of substance use and medical care services (Ducharme et al., 2016; SAMHSA, 2016), the present study examined screening data for an RCT to identify prevalence of substance use in a sample of adults (aged ≥18 years) presenting to a primary care clinic. Methods: Participants (N = 4557) were 69.1% female; age = 46, SD = 12; 70.6% Black or African American; 96.3% Non-Latinx, and were recruited for a RCT examining computerized Screening, Brief Intervention, and Referral to Treatment (SBIRT) in a large hospital outpatient waiting room in Richmond, VA. Participants completed a screening computer-directed assessment with questions regarding sociodemographics, general physical health, mental health, and health related behaviors. Results: Overall in the past 30 days, 51.3% of the sample reported binge drinking on at least one occasion and 10.6% reported recreational illicit drug use. Additionally, 8% reported misusing prescription drugs in the past 30 days. Males were significantly more likely than females to report binge drinking (p

Willing to present orally: No

Financial Support: R01 DA026091

Name of Sponsor (If you are NOT) a CPDD Member: Dace Svikis

Email Address of Sponsor : dssvikis@vcu.edu

Prefix: Mr.

First Name: David

Middle Initial: J

Last Name: Pomm

Degrees: MA MD Ph.D etc:: MS

Email: dpomm@vcu.edu

Company Affiliation: Virginia Commonwealth University

Mailing Address: 806 W. Franklin St.

City: Richmond

State: VA

Zip/Postal: 23284

Country: United States

Phone: (540) 246-7661

ID: 602
History of depression and past-30 day opioid misuse among justice-involved children

Toni Hayes, University of Florida: STOMP Lab, d.hayes@ufl.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Adolescent

Abstract: Aim: Recent research has underscored the significance of individuals in the criminal justice system in addressing overall opioid overdose fatalities. Understanding the predictors of current use in the juvenile justice system may help to prevent the initiation among all youth. Depression is prevalent among justice-involved children (JIC) and has been linked to elevated rates of substance abuse in this population. However, the relationship between history of depression and opioid misuse initiation among JIC have not been tested. We hypothesize that depression will be associated with higher likely of past-30 day opioid misuse (P30D OM) among JIC. Methods: Statewide cross-sectional data on 79,960 JIC from the Florida Department of Juvenile Justice were examined. Depression was measured via a four-item categorical variable. The mutually exclusive response options were no history of depression, occasional depression, consistent depression, and impairment due to depression. Opioid misuse referred to the consumption of illicit opioids or prescription opioids non-medically within the past 30 days. To test these relationships, bivariate and multivariate logistic regression analyses were employed. Results: In the total sample, 2.7% met criteria for past-30 day opioid misuse. More than 61% of past 30 day users had a history of depression compared to 36% among non-past-30 day users. Compared to JIC who had no history of depression, those with occasional depression were 1.61 times more likely to meet criteria for past-30 opioid misuse, those with consistent depression were 2.18 times more likely, and those with impairment from depression were 2.53 times more likely to misuse opioids in the past 30 days, respectfully. Conclusions: Adolescents in the justice system who have experienced occasional, consistent or severe depression may be particularly vulnerable during the opioid epidemic. Intervention strategies that address opioid use disorder and comorbid depression in justice settings may significantly reduce overall opioid overdose fatalities.

Willing to present orally: Yes

Financial Support: This research was supported by the National Institute of Drug Abuse T32 training grant at the UF Substance Abuse Training Center in Public Health from the National Institutes of Health under award number T32DA035167 (PI: Dr. Cottler) and by the University of Florida Graduate School PhD Preparatory Project (PI: Dr. Henry Frierson). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health or the Florida Department of Juvenile Justice.

Name of Sponsor (If you are NOT) a CPDD Member: Linda B. Cottler

Email Address of Sponsor : lbcottler@ufl.edu

Prefix: Mrs.

First Name: Toni

Middle Initial: D.

Last Name: Hayes

Email: d.hayes@ufl.edu

CC Email: Micahjohnson3000@gmail.com

Company Affiliation: University of Florida: STOMP Lab

Mailing Address: 2004 Mowry rd

City: Gainesville

State: FL

Zip/Postal: 32609

Country: United States

Phone: 3522739307

ID: 603
Unmet addiction treatment need in the United States: Is there a gender difference?

Caitlin Martin, VCU School of Medicine, Dpt OBGYN, caitlin.martin@vcuhealth.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: All substance use disorders are included

Topic: Sex Differences

Abstract: Aim Even though effective treatments for substance use disorders (SUD) exist, many go untreated. Historically gender differences have been reported in addiction treatment. With the changing gender makeup of substance use in the United States, we report on the current unmet SUD treatment needs among adults using the 2015-2017 National Survey on Drug Use and Health (NSDUH) with a focus on gender. Methods Men and women in need of addiction treatment included those meeting DSM criteria or expressing treatment need. Treatment receipt was defined by self-report. Population adjusted frequencies and proportions were calculated, and comparisons by gender were done using chi squared tests. Gender stratified multivariable logistic regression was done to describe factors associated with SUD treatment receipt. Results Among those in need of addiction treatment (N=25,875,047), 34% (n=8,811,422) were women and 66% (n=17,063,625) were men. Across gender, most met criteria for alcohol use disorder (96%; p=0.7), and 23% had an illicit drug use disorder (p=0.5). Few men and women received treatment (7%; 5.5% alcohol; 13% illicit drugs). Opioid use disorder treatment receipt was higher (17.5%), especially for women (27% vs. 12% men; p=0.03). Although overall addiction treatment receipt did not vary by gender (women 6.5%, men 7.2%; p=0.5), women reported more barriers to care than men across all categories (i.e., cost, transportation, treatment availability, perceived need, stigma). Factors associated with treatment receipt in multivariable analyzes generally did not differ by gender. Conclusions Although women with addiction face more treatment barriers than men, the current large unmet addiction treatment need is equal across gender. Women using opioids show a promising trend towards increased treatment utilization likely in response to attention on the opioid crisis. Treatment disparities for all SUD must be addressed through the continued service expansion.

Willing to present orally: No

Financial Support: The authors have no financial disclosures to disclose.

Name of Sponsor (If you are NOT) a CPDD Member: Mishka Terplan

Email Address of Sponsor : mishka.terplan@vcuhealth.org

Prefix: Dr.

First Name: Caitlin

Middle Initial: E

Last Name: Martin

Degrees: MA MD Ph.D etc:: MD, MPH

Email: caitlin.martin@vcuhealth.org

CC Email: caitlin.martin@vcuhealth.org

Company Affiliation: VCU School of Medicine, Dpt OBGYN

Mailing Address: 9532 Oldhouse Drive

City: Richmond

State: VA

Zip/Postal: 23238

Country: United States

Phone: 7573197366

ID: 604
Purpose in life mediating the relationship between depression and problematic drinking in post-treatment among individuals with alcohol use disorders

Daniel Knoblach, University of Maryland - Baltimore County, kdan1@umbc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Treatment

Abstract: AIM: By better understanding the mechanisms that help to explain the relationship between depression and problematic drinking, the treatment field can better promote quality of life and prevent relapse, independent of the treatment-type employed. Purpose in life (PIL) has already been established as a mediating factor protective against other health disorders, and has been found to be significantly related to both depression and alcohol use outcomes independently. The primary goal of this study was to consider purpose in life as a partial mediator in the relationship between depression and alcohol drinking across time. It was further hypothesized that the use of change score variables in mediating paths would find stronger indirect effects compared to status score variables. METHODS: This secondary analysis, using a subsample of Project Match outpatient data (N = 793), aimed to quantify PIL's longitudinal mediating effect between depression (BDI) and drinks per drinking day (DDD) during the trial's 15 months. Estimating indirect effects over time in this relationship was assessed using latent difference score (LDS) modeling. RESULTS: Purpose in Life (month 3) demonstrated significant longitudinal mediation between depression (month 0) and drinks per drinking day (month 12) in the presence of status score variables [estimate = 0.24, 95% Bootstrap CI (0.17, 0.33)]. This was anchored by strong correlations between depression and PIL (maximum r = .70). Contrary to what was hypothesized, however, change scores were primarily not significant predictors, and their inclusion diminished mediating effects that were established by status scores. CONCLUSION: These findings suggest that purpose in life may be a relevant positive psychology factor to consider in the recovery from alcohol use disorders, especially among those with co-occurring depressive disorders. LDS modeling may be particularly useful in detecting longitudinal mediation in addiction studies given its sensitivity to factor changes over important events like treatment.

Willing to present orally: Yes

Financial Support: None.

Prefix: Mr.

First Name: Daniel

Middle Initial: J

Last Name: Knoblach

Degrees: MA MD Ph.D etc:: M.A.

Email: kdan1@umbc.edu

CC Email: dknoblach@gmail.com

Company Affiliation: University of Maryland - Baltimore County

Mailing Address: 6407 40th Avenue

City: University Park

State: MD

Zip/Postal: 20782

Country: United States

Phone: 6094681052

Membership Year: 2014

Sponsor: Dr. Alexandre Laudet, Ph.D.

Research Interests: Psychiatric/Medical Morbidity Treatment

ID: 605
Information on the rising rates of cocaine and amphetamine interdiction, trafficking, use, and overdose deaths

Deni Carise, Recovery Centers of America & University of Pennsylvania, denicarise@gmail.com

---

Abstract Category: Theoretical/Commentary

Abstract Detail: Human

Drug Category: Stimulants

Topic: Other

Other Topic: Emerging Drug Threats

Abstract: AIM: To provide education about the level of increased flow of cocaine and amphetamines into the country, offer information from new users about why it's use is increasing, present data on increased overdose deaths, and start discussion on how we can prepare to address these issues. CONCLUSION: Much of the field's research, policy and treatment has become focused on the opioid epidemic and resulting overdose deaths. With opioid overdose resulting in approximately 134 deaths in the United States each day, this is understandable. However, current data show dramatic increases in the number of first-time users of cocaine and methamphetamine as well as a significant upswing in the number of overdose deaths involving their use, with a direct correlation to both drugs being increasingly available on our streets due to rising international production and trafficking. The facts: Figures from the Centers for Disease Control and Prevention reveal that overdose deaths have more than tripled for cocaine and quadrupled for meth since 2012. A UN report shows Colombian coca production more than tripled between 2012 and 2016; over the same period, prices fell 23 percent while purity increased nearly 20 percent. The U.S.. High Intensity Drug Trafficking Area (HIDTA) program recently stated that cocaine made up 83 percent of drug seizures and meth 14 percent in 2017. Meth seizures more than doubled within three years in southwestern states. Marked increases in overdose deaths involving combination drugs are frequently being seen with some users reporting purposely using cocaine/opioid or amphetamine/opioid combinations and others reporting use of cocaine unexpectedly laced with opioids. Discussion will include education needed and how the nation can respond to these other drug threats through reducing supply, decreasing demand, and increasing prevention and treatment options.

Willing to present orally: Yes

Financial Support: Employed full time at Recovery Centers of America

Prefix: Dr.

First Name: Deni

Last Name: Carise

Degrees: MA MD Ph.D etc:: Ph.D.

Email: denicarise@gmail.com

CC Email: dcarise@recoverycoa.com

Company Affiliation: Recovery Centers of America & University of Pennsylvania

Contact Title: Chief Scientific Officer

Mailing Address: 1964 West Ave

City: Conshohocken

State: PA

Zip/Postal: 19428

Country: United States

Phone: (215) 512-5432

Membership Year: 2004

Sponsor: Dr. Herbert D. Kleber and A. Thomas McLellan

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 606
The prevalence of heroin use, nonmedical opioid use, and associations with violent injury offending among United States high school students, 1975-2016

Erik Jorgenson, Columbia University, esj2120@cumc.columbia.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Behavior

Abstract: Aims. (1) To describe time trends in heroin use, nonmedical opioid use, and violent injury offending among American youth. (2) To test for associations between opioid use and risk of violent injury offending, and whether history of injury victimization modifies these relationships. Methods. We obtained annual prevalence estimates for lifetime heroin use, lifetime nonmedical opioid use, and violent injury offending (hurting someone badly enough to need bandages or a doctor) for US high school seniors using survey data from the Monitoring the Future Study for 1976-2016. Nonlinear trends were estimated using joinpoint regression. Significant joinpoints were incorporated in piecewise random effects models to test associations between opioid use and risk of violent injury offending. Results were adjusted by race/ethnicity, geographic region, and metropolitan statistical area. Results. Significant nonlinear time trends were observed for the prevalence of injury offending (8.02% - 14.42%) and lifetime opioid use (heroin: 0.99% - 2.79%; nonmedical: 6.17% - 15.43%) over the study period. After adjusting for selected covariates, the odds of injury offending among youth that reported heroin use ranged from 4.06 times higher in 1976-1981 (95% CI, 2.77-5.94) to 5.64 times higher in 2000-2016 (95% CI, 4.47-7.13) relative to youth that did not report use (ptrend < 0.001). For nonmedical opioid use, adjusted ORs ranged from 2.43 (95% CI, 2.16-2.74) in 2004-2012 to 3.27 (95% CI, 2.62-4.07) in 2012-2016 (ptrend < 0.001). There was no effect measure modification by history of injury victimization in the relationship between opioid use and violent injury offending. Conclusion. We observed volatile trends in the prevalence of opioid use and violent injury offending among American youth over a 40-year period. Significant associations linking these behaviors were robust to the effects of time and place. Future prospective research is necessary to establish temporality of this relationship.

Willing to present orally: Yes

Financial Support: NIDA T32 (T32DA031099, PI: Hasin) NIDA R01 (R01DA037866, PI: Martins)

Name of Sponsor (If you are NOT) a CPDD Member: Silvia Martins

Email Address of Sponsor : ssm2183@cumc.columbia.edu

Prefix: Mr.

First Name: Erik

Middle Initial: S.

Last Name: Jorgenson

Degrees: MA MD Ph.D etc:: MPH

Email: esj2120@cumc.columbia.edu

CC Email: e.s.jorgenson@gmail.com

Company Affiliation: Columbia University

Mailing Address: 131 7th Ave

Address 2: Apt 4

City: New York

State: NY

Zip/Postal: 11215

Country: United States

Phone: 607-351-8384

ID: 607
Prevalence and impact of PTSD symptoms on sleep and cannabis abstinence in an urban cannabis treatment trial

Rhiannon Mayhugh, Johns Hopkins University School of Medicine, rmayhug1@jhmi.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Other

Abstract: Aim: Among individuals seeking treatment for Cannabis Use Disorder (CUD), co-occurring PTSD is associated with more severe withdrawal, difficulty quitting, and coping-oriented use. Most prior research has been conducted in military populations. We investigated the prevalence/severity of PTSD and its relation to cannabis cessation and sleep quality in an urban sample of individuals seeking treatment for CUD. Method: Treatment-seeking heavy cannabis users in Baltimore (n=127) were recruited for a 12-week pharmacotherapy clinical trial (zolpidem or placebo). The PTSD Checklist (PCL-C; DSM-IV) and Pittsburgh Sleep Quality Index (PSQI) were administered at intake and post-treatment. A PCL-C cutoff score of >30 was used to identify individuals likely to have PTSD. Urine analysis determined abstinence. A two-tailed t-test assessed group differences in PSQI scores and baseline cannabis use. Logistic regression was used to determine whether PCL-C score predicted abstinence. Alpha was 0.05 for all analyses. Results: Prior trauma was reported by 70% of study participants and 95% indicated that they used cannabis to improve sleep. A PTSD diagnosis was probable (PCL-C score > 30) in 21% (N=19) of those with past trauma; 15% of total sample. This group had significantly higher PSQI scores (worse sleep quality) than other participants. No differences were observed between the probable PTSD group and other participants on intake cannabis use characteristics (# of days used and grams smoked in past 30 days, years of regular cannabis use) or cannabis abstinence during the trial. PCL-C score did not predict the likelihood of abstinence during the trial. PTSD symptom severity at the end of treatment did not differentially change from intake among abstainers versus non-abstainers. Conclusion: While individuals with PTSD reported greater sleep difficulty, contrary to studies of military/veteran samples, the presence of PTSD was not associated with differential cannabis use behavior or CUD abstinence during treatment.

Willing to present orally: Yes

Financial Support: Funded by U01-DA031784

Prefix: Dr.

First Name: Rhiannon

Last Name: Mayhugh

Degrees: MA MD Ph.D etc:: PhD

Email: rmayhug1@jhmi.edu

CC Email: rmayhug1@jhmi.edu

Company Affiliation: Johns Hopkins University School of Medicine

Mailing Address: 5510 Nathan Shock Dr.

City: Baltimore

State: MD

Zip/Postal: 21224

Country: United States

Phone: 410-550-6989

Membership Year: 2018

Sponsor: Dr. George Bigelow, PhD

Research Interests: Behavioral Pharmacology,Psychiatric/Medical Morbidity

Date of Membership: 11.16.18 approved

ID: 608
Acute oral and vaporized cannabidiol in healthy adults

Ryan Vandrey, Behavioral Pharmacology Research Unit, Johns Hopkins Hospital, rvandrey@jhmi.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Behavior

Abstract: AIM: Evaluate the acute dose effects of oral cannabidiol (CBD), vaporized CBD, and vaporized cannabis containing high CBD and low THC, compared with placebo on pharmacokinetic and pharmacodynamic outcomes. Methods: Six healthy adults completed four, double-blind, double dummy, acute CBD dosing sessions in a within-subjects cross-over study. A 100mg CBD dose was delivered in 3 formulations: encapsulated synthetic CBD powder, vaporized synthetic CBD powder, or vaporized cannabis containing 100mg CBD and 4mg THC. Placebo capsules were filled with cellulose, placebo cannabis was obtained from NIDA. Experimental sessions were separated by 1 week. Pharmacodynamic assessments (VAS drug effect ratings, Divided Attention, Paced Serial Addition Task, Digit Symbol Substitution Task) were evaluated at baseline and for 8 hours post-dosing. Whole blood, oral fluid, and urine samples were collected repeatedly over 5 days after each dose. Results:Vaporized CBD and high CBD cannabis increased ratings of Drug Effect and Pleasant Drug Effect compared with placebo. CBD did not increase subjective ratings for effects typically associated with acute cannabis effects and none of the active dose conditions significantly impaired cognitive performance. Following vaporization of pure CBD, delta-8 and delta-9 THC were measured in the oral fluid of all 6 participants; quantitative levels were below 2ng/mL within 4 hours of administration. No THC, 11-OH-THC, or THCCOOH were measured in blood, and trace amounts of THCCOOH were measured in urine after both oral and vaporized CBD administration. Conclusions: Vaporization of pure CBD increased subjective drug effect ratings and resulted in the presence of THC in oral fluid, but was not associated with “THC-like” subjective effects or cognitive impairment. A single acute exposure of 100mg CBD would not result in a positive drug test using current federal testing standards beyond 1 hour after exposure. Additional research is needed to characterize the pharmacodynamic and pharmacokinetic effects of acute vaporized CBD at higher doses and the effects of chronic CBD use on drug testing outcomes.

Willing to present orally: Yes

Financial Support: Substance Abuse and Mental Health Services Administration (SAMHSA)

Prefix: Dr.

First Name: Ryan

Middle Initial: G.

Last Name: Vandrey

Degrees: MA MD Ph.D etc:: Ph.D.

Email: rvandrey@jhmi.edu

Company Affiliation: Behavioral Pharmacology Research Unit, Johns Hopkins Hospital

Mailing Address: 5510 Nathan Shock Drive

City: Baltimore

State: MD

Zip/Postal: 21224

Country: United States

Phone: -4105504036

Fax: (410) 550-0030

Membership Year: 2001

Sponsor: Alan Budney, Ph.D. Dr. George Bigelow and Dr. Alan Budney

ID: 609
Short-term effectiveness of a brief fentanyl test strip intervention in reducing overdose risk among women who use street drugs

Ju Nyeong Park, Johns Hopkins University, ju.park@jhu.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Behavior

Abstract: Background: In 2017, over 70,000 drug overdose deaths occurred in the U.S. with illicitly manufactured fentanyl driving recent surges. Fentanyl's high potency and rapid absorption properties render it lethal. Fentanyl test strips (FTS) are a novel tool that allow users to check their drugs for the presence of fentanyl. This study evaluates the behavioral impact of a brief FTS intervention among female sex workers (FSW) who use opioids (N=125). Methodology: FSW enrolled in a cohort study in Baltimore City, Maryland, USA were invited to participate in this pilot study in 2018 if they reported non-medical opioid use in the past month (heroin/any opioid pills/fentanyl). FSW completed a baseline survey, a brief training on harm reduction and FTS, were provided with 5 take-home strips then completed a one-month follow-up survey. McNemar's test was used to compare repeated measures. Results: Among FSW who have completed follow-up to date (n=39/54), mean age was 40 (SD=10), 62% were white, 38% injected drugs, 81% used heroin, 71% used cocaine (powdered/crack), 19% used fentanyl (non-medically). Most (81%) used > = 1 FTS (71% prior to drug use), 94% had > = 1 fentanyl-positive result, 43% were surprised by positive result, and 43% engaged in harm reduction behaviors after receipt of a positive result (e.g., asked someone to check on them, did a tester shot, used slower). Many shared results or gave strips to a peer. Preliminary pre-test/post-test reductions in using drugs alone (91% vs. 72%; p=0.01) were observed. Other outcomes will be analyzed at study completion (March 2019).

Conclusion: These findings demonstrate that information gained from FTS utilization has the potential to empower users and their peers in reducing their risk of overdose. This study adds to the nascent literature on the impact of FTS as a potential strategy in reducing overdose burden among high-risk populations.

Willing to present orally: Yes

Financial Support: This study was funded in part by the National Institutes of Health (5R01DA041243-03).

Name of Sponsor (If you are NOT) a CPDD Member: Eric Strain

Email Address of Sponsor : estrain1@jhmi.edu

Prefix: Dr.

First Name: Ju Nyeong

Last Name: Park

Degrees: MA MD Ph.D etc:: PhD MHS

Email: ju.park@jhu.edu

Company Affiliation: Johns Hopkins University

Mailing Address: 624 N Broadway

Address 2: HH163

City: Baltimore

State: MD

Zip/Postal: 21205

Country: United States

Phone: 2023862834

ID: 610
Behavioral characterization of voluntary heroin vapor exposure in female rats

Arnold Gutierrez, The Scripps Research Institute, agutierr@scripps.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Dependence

Abstract: Aims: Inhalation is a common route of administration among opioid abusers. Recent reports suggest that e-cigarette technology can be used to administer a wide range of illicit substances, including opioid drugs. The present study examined the effects of heroin vapor self-administration using a novel method based on e-cigarette technology. Methods: Female Wistar rats were trained to lever-press for a 1 second delivery of heroin vapor (1-50 mg/mL) using a Fixed Ratio (FR1 and FR2) response contingency. Heroin was dissolved in propylene glycol (PG) vehicle. In nociception tests, tail withdrawal latency was measured pre- and post-vapor sessions. To assess the emergence of withdrawal-like behavior, rats were tested in an elevated plus maze (EPM) following 0, 24 and 48h discontinuation of heroin vapor. Rats were then evaluated on dose-substitution of heroin vapor (1-100 mg/mL) or THC vapor (12.5-100 mg/mL). Finally, rats were challenged with a heroin (50 mg/mL) + THC (50 mg/mL) combination. Results: Following heroin vapor sessions, rats demonstrated increased tail-withdrawal latency. Rats showed a decrease in time spent in the open arms of the EPM following 24 and 48h discontinuation. There was a modest trend of dose-dependent responding for reinforcers. There was no effect of the heroin/THC combination on reinforcers; however, there was a significant reduction in responding during time-out periods. Conclusions: This study shows that voluntary administration of heroin vapor produces antinociceptive effects similar in magnitude to those seen in intravenous heroin self-administration and leads to the development of spontaneous withdrawal-induced anxiety following discontinuation. Further, these data suggest that THC vapor may attenuate heroin-seeking behavior. Collectively, these findings validate a method for operant vapor self-administration of heroin in rats.

Willing to present orally: No

Financial Support: Financial Support: United States Public Health Service National Institutes of Health (R01 DA035281).

Name of Sponsor (If you are NOT) a CPDD Member: Michael A. Taffe

Email Address of Sponsor : mtaffe@scripps.edu

Prefix: Dr.

First Name: Arnold

Last Name: Gutierrez

Degrees: MA MD Ph.D etc:: Ph.D.

Email: agutierr@scripps.edu

CC Email: gutierad@mail.uc.edu

Company Affiliation: The Scripps Research Institute

Mailing Address: 10550 North Torrey Pines Road

Address 2: Mailcode SP30-2400

City: La Jolla

State: CA

Zip/Postal: 92037

Country: United States

Phone: 9513577392

ID: 611
Trends in adolescent heroin and injection drug use vary across New York City boroughs - differences by sex and race, 2003-2017

Sherri-Chanelle Brighthaupt, Johns Hopkins Bloomberg School of Public Health, Department of Mental Health, sbright5@jhu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Adolescent

Abstract: Background. Little research has examined local variation in adolescent heroin and injection drug use (IDU) in the United States. Even less has explored the role of sociodemographic characteristics in IDU and heroin use among urban adolescents. Aim. To assess trends in heroin/IDU among high school students in New York City (NYC) and its five boroughs and to examine differences by sex and race. Methods. We used local Youth Risk Behavior Survey data from 2003 to 2017 to estimate trends in lifetime heroin/IDU among 9th-12th grade students in NYC and its five boroughs (N=142,676). We used logistic regression models to test for linear trends, then separately tested for overall associations by sex and race within each borough. Results. Manhattan had the lowest average prevalence of heroin and IDU (1.7%, 1.9%), while Staten Island had the highest (3.3%, 3.0%). There were significant linear increases in heroin and IDU in NYC overall, the Bronx, Staten Island, and Queens. The Bronx had the largest linear increases in heroin (1.0-2.9%, β=0.35) and IDU (0.8-2.9%, β=0.32) over time. In these jurisdictions, males were twice as likely (OR: 2.51) to report heroin and IDU. The impact of race/ethnicity varied by borough. Black and Latino students in the Bronx were less likely to report heroin/IDU, but more likely to report use in Staten Island. In Queens, odds of heroin/IDU were higher among Latino students. Use did not differ by race in Brooklyn and Manhattan. Conclusions. The prevalence of heroin and injection drug use in increasing among students in New York City and varies by borough. The association between race/ethnicity and heroin use may be impacted by geographic and socio-structural factors unique to each NYC borough. Further research with locally-representative samples is needed to understand etiologic mechanisms and inform public health policy and practice.

Willing to present orally: Yes

Financial Support: This research was supported by Grant 4T32DA007292-24 from the National Institute on Drug Abuse (PI: Renee Johnson, Brion Maher).

Name of Sponsor (If you are NOT) a CPDD Member: Eric Strain

Email Address of Sponsor : estrain1@jhmi.edu

Prefix: Ms.

First Name: Sherri-Chanelle

Last Name: Brighthaupt

Degrees: MA MD Ph.D etc:: BA

Email: sbright5@jhu.edu

Company Affiliation: Johns Hopkins Bloomberg School of Public Health, Department of Mental Health

Mailing Address: 1123 N Eutaw St

Address 2: Apt 108

City: Baltimore

State: MD

Zip/Postal: 21201

Country: United States

Phone: 2409887049

ID: 612
Motives for cannabis use are differentially associated with severity of cannabis-use disorder and with current depression or anxiety

Landhing Moran, NIDA Intramural Research Program, landhing.moran@nih.gov

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Epidemiology

Abstract: Aim: Previous work in young adults showed that using cannabis to cope with negative emotions and stress was associated with depressive symptoms and Cannabis Use Disorder (CUD) severity. We sought to replicate and extend that finding in a sample of mostly older users. Methods: Participants with current cannabis use (N=123) were recruited by flyers and word of mouth. They answered self- and interviewer-administered assessments of mental health and substance use, including the Marijuana Motives Measure (MMM), CES-Depression Scale (CES-D) and the Burns Anxiety Scale (BAS), which assess depression and anxiety in the last week. Results: In preliminary bivariate analyses, we found correlations between CUD severity and MMM subscores on Coping motives ("to forget my worries"), Social motives ("to be sociable"), Enhancement motives ("because I like the feeling"), and Expansion motives ("to expand my awareness"). In multiple-regression models including those variables, CUD severity count was associated with the Coping motive (B = .55, 95% CI .11-.99, p

Willing to present orally: No

Financial Support: NIDA-IRP

Name of Sponsor (If you are NOT) a CPDD Member: Karran Phillips

Email Address of Sponsor : phillipsk@nida.nih.gov

Prefix: Dr.

First Name: Landhing

Last Name: Moran

Degrees: MA MD Ph.D etc:: Ph.D.

Email: landhing.moran@nih.gov

CC Email: MiWilliams@intra.nida.nih.gov

Company Affiliation: NIDA Intramural Research Program

Mailing Address: 251 Bayview Blvd

Address 2: Suite 200, BRC

City: Baltimore

State: MD

Zip/Postal: 21224

Country: United States

Phone: 443-740-2320

ID: 613
Screening, brief intervention, and referral to treatment (SBIRT) to reduce alcohol and drug use: Results from a randomized-controlled trial in outpatient mental health clinics

Suzanne Spear, California State University Northridge, suzanne.spear@csun.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Prevention

Abstract: AIM: Mental health clinics provide opportunities for identifying and addressing substance use disorders. This presentation reports findings from a randomized-controlled trial of Screening, Brief Intervention, & Referral to Treatment (SBIRT) for alcohol and non-prescription substance use with adults receiving mental health treatment. METHODS: 718 participants (47% racial/ethnic minorities) from two mental health settings in California were randomized to either a single SBIRT session (n=354) or to a manualized Health Education session (n=364). The SBIRT condition included the Alcohol, Smoking, and Substance Involvement Screening Test (ASSIST) and ASSIST brief intervention (BI). Participants at moderate- or high-risk for alcohol, cannabis or stimulant disorders received a BI. Participants at high-risk also received information about treatment options, a referral to a treatment facility, assistance making an appointment, transportation assistance, and appointment reminder phone calls. The primary outcomes were days of alcohol use, heavy-drinking days, days of cannabis use, days of stimulant use, and percent of participants who initiated and engaged in specialty addiction treatment. Participants were assessed at baseline, 3-, 6-, and 12-months follow up. Estimated group effects were evaluated at each of the follow-up time points using binomial hurdle models. Logistic regressions were used to test for group effects on treatment initiation and engagement. RESULTS: Participants in the SBIRT condition displayed lower odds of alcohol use and stimulant use on any given day throughout all follow-up timepoints. The SBIRT condition also had lower odds of heavy drinking days at the 3- and 6-month follow-ups. Overall, 32.5% of participants initiated addiction treatment by the 1-year follow up; however, no differences were found by condition. CONCLUSION: Overall, the 1-session SBIRT model was effective at reducing alcohol and stimulant use among individuals in mental health treatment. Despite these reductions in substance use, SBIRT failed to promote initiation and engagement into specialty addiction treatment.

Willing to present orally: Yes

Financial Support: National Institute on Drug Abuse (5R01DA032733, PI, Dr. Mitchell Karno)

Prefix: Dr.

First Name: Suzanne

Middle Initial: E.

Last Name: Spear

Degrees: MA MD Ph.D etc:: Ph.D.

Email: suzanne.spear@csun.edu

CC Email: suzanne.spear@csun.edu

Company Affiliation: California State University Northridge

Contact Title: Assistant Professor

Mailing Address: 18111 Nordhoff Street

City: Northridge

State: CA

Zip/Postal: 91330-8285

Country: United States

Phone: 310-498-8080

Fax: 818-677-2045

Membership Year: 2009

Sponsor: Richard Rawson, Ph.D.

Research Interests: Treatment

ID: 614
Continued opioid use and risk for misuse in a sample of post-injury surgical patients

Angela Heads, University of Texas Health Science Center, McGovern Medical School, angela.m.heads@uth.tmc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Prevention

Abstract: AIM: Approximately 98% of surgical patients receive prescription opioid pain medication (OPM) for post-surgery analgesia and pain management. Studies indicate that up to 24% of patients go on to demonstrate chronic opioid use or misuse. The use of OPMs in surgical patients is a challenging problem that requires novel methods for managing pain while minimizing the risks of persistent post-surgical OPM use. As part of a larger ongoing study of pain management and opioid risk, the current study aims to explore factors associated with continued OPM use among a sample of post-injury surgical patients. METHODS: Participants were 49 patients (64.1% male, 51.3% White, 38.5% Hispanic, agem = 49.79 (20.50)) who had undergone a post-injury surgery at a Level I Trauma hospital. Before discharge, participants completed the Opioid Risk Tool and agreed to be contacted for 2-week and 4-week post-discharge follow-up surveys designed to assess pain severity, continued use of OPMs, perceived stress, and perceived need for continuing pain management services. RESULTS: 25% of participants reported moderate-high risk for opioid misuse. 71.4% reported moderate-very severe pain and over 75% reported pain (sometimes-very often) interfered with daily activities. 46.9% continued taking their OPM and 24.5% had obtained a refill. 73.5% reported a need for continued pain management and that they (sometimes-very often) felt stressed about their injury. Opioid risk level was not a significant predictor of continued OPM use at follow-up. Perceived injury-related stress was significantly correlated with opioid risk level, pain intensity and interference, and continued pain management needs. CONCLUSION: A large number of patients continue to take prescribed OPMs and request a refill following surgery. The majority express a need for continued pain management. Given that emergency surgical environments often lack resources to coordinate aftercare services, novel approaches such as patient navigation are needed to facilitate the continuum of care post-discharge.

Willing to present orally: Yes

Financial Support: None

Prefix: Dr.

First Name: Angela

Middle Initial: M.

Last Name: Heads

Degrees: MA MD Ph.D etc:: Ph.D.

Email: angela.m.heads@uth.tmc.edu

CC Email: angela.m.heads@uth.tmc.edu

Company Affiliation: University of Texas Health Science Center, McGovern Medical School

Mailing Address: 1941 East Rd. #1238

City: Houston

State: TX

Zip/Postal: 77054

Country: United States

Phone: 7134862830

Membership Year: 2015

Sponsor: Dr. Joy Schmitz, Ph.D.

Research Interests: Psychiatric/Medical Morbidity Prevention

ID: 615
The Cornerstone clinic at Helping Up Mission: Increasing treatment retention for homeless persons with substance use disorders

Denis Antoine, Johns Hopkins University School of Medicine, antoine@jhmi.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Treatment

Abstract: Background: Residential facilities are a common entry point into treatment for substance use disorders (SUDs). 42-60% of residential treatment participants relapse, with higher rates in the setting of homelessness. Increasing treatment retention for homeless persons with SUDs is a logical first step to ensuring that this underserved population receives better treatment. Helping Up Mission (HUM) is a faith-based therapeutic environment which provides access to multiple services for homeless persons with SUDs with a focus on blending spirituality with medicine. The Cornerstone clinic at HUM opened in 2012 and provides on-site SUD treatment to a portion of HUM residents. Treatment follows an evidenced-based model (Reinforcement-Based Treatment), which has been studied across different SUD treatment populations (Jones et al., 2005; Tuten et al., 2012). Aim: To characterize the impact of the clinic on treatment retention, we characterized the duration of time that clients stayed at HUM as a function of enrollment in the Cornerstone Clinic. Methods: Intake and discharge dates were collected for all clients discharged from Helping Up Mission in 2017. Analyses assessed groups, and the mean length of treatment (LOT) for persons admitted to the Cornerstone clinic and the mean LOT for HUM residents not admitted. Results: 487 persons were discharged in 2017 with a mean LOT of 155 days. Persons that had been enrolled in the Cornerstone clinic (n=189) stayed at HUM 55 days longer than persons that were not enrolled (n=298, $p < 0.0001$). Conclusion: These data demonstrate that this type of community-based collaboration can positively impact treatment for underserved populations. Future research will aim to characterize critical treatment components that may contribute to better outcomes, such as spirituality.

Willing to present orally: Yes

Financial Support: Departmental funds

Name of Sponsor (If you are NOT) a CPDD Member: Eric Strain

Email Address of Sponsor : estrain1@jhmi.edu

Prefix: Dr.

First Name: Denis

Last Name: Antoine

Degrees: MA MD Ph.D etc:: MD

Email: antoine@jhmi.edu

Company Affiliation: Johns Hopkins University School of Medicine

Mailing Address: 5510 Nathan Shock Drive

City: Baltimore

State: MD

Zip/Postal: 21224

Country: United States

Phone: 410-550-2796

ID: 616
Associations between exposure to gangs and positive urine drug screens in Cape Town, South Africa among a sample of female adolescents who have dropped out of school

Felicia Browne, RTI International, fbrowne@rti.org

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Adolescent

Abstract: AIM: The prevalence of gangs and their association with drug use is a major issue in Cape Town, South Africa. This intersection is of particular concern among young women who have dropped out of school, as they are often a target for recruitment efforts, and exposure to gangs may provide access to substance use. METHODS: As part of a trial, this study enrolled 500 female adolescents (16 to 19) who were out of school and reported recent drug or alcohol use and sexual risk behavior. At study enrollment, a risk behavior assessment was administered and urine drug screening was conducted. Logistic regression analyses were conducted to examine baseline associations between gang exposure and positive urine drug screens. RESULTS: At enrollment, 39% screened positive for marijuana, 17% for methaqualone, and 10% for methamphetamine. While 6% reported ever being in a gang, 88% reported having gangs in their neighborhood, and 55% reported ever having a family member in a gang. Young women were more likely to have a positive marijuana screen if they reported spending time with someone in or linked to a gang (OR = 1.92; $p < .001$), ever having a family member in a gang (OR = 1.81; $p < .001$), or having gangs in their neighborhood (OR = 2.10; $p = .018$). Young women who had a recent sexual partner affiliated with or in a gang were more likely to screen positive for marijuana (OR = 2.43; $p < .001$) and methaqualone (OR = 1.98; $p = .018$). No statistically significant findings were found with methamphetamine. CONCLUSION: These findings suggest gang exposure through young women's social and physical environment is positively associated with certain drugs. While very few reported gang membership, the majority reported exposure, indicating the need to address how pervasive gangs are and their associated risks.

Willing to present orally: Yes

Financial Support: This research is supported by R01DA041227 (PI: Wechsberg).

Prefix: Dr.

First Name: Felicia

Middle Initial: A.

Last Name: Browne

Degrees: MA MD Ph.D etc:: ScD, MPH

Email: fbrowne@rti.org

CC Email: febrowne@gmail.com

Company Affiliation: RTI International

Mailing Address: 3040 East Cornwallis Road

City: Research Triangle Park

State: NC

Zip/Postal: 27709

Country: United States

Phone: 919-541-6596

Membership Year: 2018

Sponsor: Dr. Wendee Wechsberg, PhD and Dr. Zule

Research Interests: Epidemiology,Treatment

Date of Membership: uprade MIT to Assoc.9.1

ID: 617
Sedative effects of triazolam and pregnanolone combinations in female rhesus macaques

Jemma Cook, University of Mississippi Medical Center, jecook@umc.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Sedative-Hypnotics

Topic: Behavior

Abstract: AIM Benzodiazepines (BZs) are prescribed as anxiolytics, but their use is limited by side effects including abuse liability and daytime drowsiness. Neuroactive steroids (NSs) are compounds that, like BZs, modulate the effects of GABA at the GABAA receptor. In a previous study, combinations of the BZ triazolam and NS pregnanolone produced supra-additive anxiolytic effects but infra-additive reinforcing effects. The sedative effects of these combinations are unknown yet are critically important in assessing potential clinical utility of BZ-NS combinations. METHOD Four female rhesus macaques were administered triazolam (0.03-1.7 mg/kg, i.v.), pregnanolone (0.1-3 mg/kg, i.v.), and combinations of triazolam and pregnanolone in dose ratios of 1:1, 1:3, and 1:9 (triazolam:pregnanolone). Trained observers, blinded to condition, scored the occurrence of species-typical and drug-induced behaviors in 15-s blocks across 5-min observation sessions that occurred at 5, 10, 20, 40, 80, and 160 min post-drug administration. RESULTS Two-way repeated-measures ANOVAs for individual behaviors (within-subject factors: time and dose) detected significant increases in ataxia, rest/sleep posture, and deep sedation, and significant decreases in species-typical activity (e.g., locomotion, foraging, tactile/oral exploration) as a function of dose for triazolam, pregnanolone, and all triazolam-pregnanolone combinations [All measures $p < .05$]. Combinations of triazolam and pregnanolone in ratios of 1:1 and 1:3, but not 1:9, had supra-additive effects in inducing deep sedation according to isobolographic analysis. CONCLUSION Combinations of triazolam and pregnanolone produced supra-additive effects on deep sedation as well as significant increases in observable ataxia. Combinations of triazolam and pregnanolone may be useful as clinical sedative drugs in the context of treating insomnia or in surgical anesthesia. Funding: DA011792 (JKR), AA016179 (DMP)

Willing to present orally: Yes

Financial Support: Funding: DA011792 (JKR), AA016179 (DMP)

Prefix: Dr.

First Name: Jemma

Middle Initial: E.

Last Name: Cook

Degrees: MA MD Ph.D etc:: Ph.D.

Email: jecook@umc.edu

CC Email: jamesecook@gmail.com

Company Affiliation: University of Mississippi Medical Center

Mailing Address: 2500 N. State Street

Address 2: Department of Psychiatry & Human Behavior

City: Jackson

State: MS

Zip/Postal: 39216

Country: United States

Phone: 6015037606

Membership Year: 2016

Sponsor: Dr. Donna Platt, PhD

Research Interests: Behavioral Pharmacology Treatment

ID: 618
Naloxone pharmacokinetics in humans: Novel nasal spray versus intravenous and intramuscular injection

Holly Kern, IMPRINT, holly.kern@imprintscience.com

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: opioid antagonist

Topic: Other

Other Topic: Pharmacokinetics

Abstract: Introduction: Naloxone, an opioid antagonist, is approved for intravenous (IV), intramuscular (IM), subcutaneous, and intranasal administration for opioid overdose treatment. Two novel Naloxone Nasal Spray (NS) formulations are expected to improve naloxone absorption rate and extent to achieve faster onset and longer duration of action. This study evaluated pharmacokinetics (PK) of two test NS formulations versus Naloxone IV and IM reference formulations. Methods: Twenty-four healthy subjects enrolled in this randomized, 4-treatment, 4-way crossover study with 4-day washout periods. Subjects received a single dose of 8mg naloxone NS containing 20% (NS-20) or 50% alcohol (NS-50), 2mg IV, or 0.4mg IM per period. Naloxone plasma concentrations were determined for PK analysis. Safety and tolerability were assessed. Results: Naloxone was rapidly absorbed: plasma concentration increased at 2min post-dose by 9- to 37-fold for both NS formulations versus 0.4mg IM. Time (Tmax) to reach maximum concentration (Cmax) was comparable between NS-20 or NS-50 and IM (median 15min); Tmax range for NS-50 (0.1–0.5h) was shorter than that for IM (0.1–1.0h). Good absorption was observed for NS-20 or NS-50, with relative bioavailability to 0.4mg IM of 47.4% or 71.3%, and absolute bioavailability to IV 2mg of 36.6% or 55.1%. Increase in Cmax for 8mg NS-20 or NS-50 was 14- or 27-fold versus 0.4mg IM, and 0.58- or 1.1-fold versus 2mg IV. Between test formulations, NS-50 achieved 1.5- to 1.9-fold higher naloxone exposure than NS-20. All formulations had low naloxone PK variability. All AEs were mild or moderate in severity. Conclusions: Naloxone demonstrated rapid absorption for the NS formulations that was superior to IM administration, with good bioavailability and low variability. The two NS formulations were generally safe and well tolerated. The novel Naloxone NS formulations are anticipated to have faster onset and longer duration for opioid overdose treatment.

Willing to present orally: Yes

Financial Support: Insys Therapeutics

Name of Sponsor (If you are NOT) a CPDD Member: David J. McCann, PhD

Email Address of Sponsor : DMCCANN@NIH.GOV

Prefix: Ms.

First Name: Holly

Last Name: Kern

Email: holly.kern@imprintscience.com

Company Affiliation: IMPRINT

Mailing Address: 230 Park Avenue South

City: New York

State: NY

Zip/Postal: 10029

Country: United States

Phone: 2126144226

ID: 619
Opioid use and related socioeconomic and health outcomes among marginalized Mexican-American women

Tasha Perdue, University of Southern California, tperdue@usc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: AIM Few studies have documented prescription opioid and heroin use among disadvantaged Latina adolescent females. This research fills this existing gap by examining prescription opioid and heroin use and related health outcomes among marginalized Latina young women who were gang affiliated as adolescents. METHODS The current study uses preliminary data from Proyecto San Antonio Latina Trajectory Outcomes (Proyecto SALTO) a longitudinal study examining long-term health outcomes among a cohort of Latina women originally interviewed as adolescents between 1999-2000. Using a concurrent mixed-method (CMM) nested longitudinal cohort design, the study includes the collection of quantitative and qualitative data. RESULTS Of the 199 women currently interviewed 49.7% reported never using opioids, 34.7% are former opioid users, and 15.6% reported current past 30-day opioid use. Chi-square and ANOVA tests were used to examine differences between never, non-current, and past 30-day opioid (prescription opioid and heroin) users on demographic and substance use (alcohol, marijuana, and other drugs) correlates. Current opioid users were more likely to be unemployed, have ever been incarcerated, to have no health coverage, and to report poor health. Significant differences were noted in polysubstance use history for current opioid users compared to former or never users for self-reporting a history of ever using tobacco, crack cocaine, amphetamines, and sedative-hypnotics. Current opioid users were more likely to report stressful life events and to meet criteria for substance dependence, psychological distress, suicidal ideation, and depression. CONCLUSION Among study participants, current opioid users have worse socioeconomic, health, and mental health outcomes compared to never and former opioid users. Discussed are the public health implications for Latina women who have gone particularly underrepresented in the current research on the opioid crisis. This study has the potential to inform future public health interventions to better aid this underserved population.

Willing to present orally: Yes

Financial Support: R01DA039269

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Danielle C. Ompad

Email Address of Sponsor : danielle.ompad@nyu.edu

Prefix: Ms.

First Name: Tasha

Last Name: Perdue

Degrees: MA MD Ph.D etc:: MSW

Email: tperdue@usc.edu

Company Affiliation: University of Southern California

Mailing Address: 669 W. 34th Street

Address 2: Suite 214

City: Los Angeles

State: CA

Zip/Postal: 90089

Country: United States

Phone: 4196517233

ID: 620
Disparities in post-ACA utilization of MAT at publicly subsidized substance use treatment facilities

Trina Johnson, Boston University, natrina@bu.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Other Topic: Ethnic Differences

Abstract: Aim: A robust literature supports medication for addiction treatment (MAT) as a predictor of better health outcomes for patients with OUD. However, MAT use is associated with high socio-economic status, and access to MAT is limited in many areas. We do not know if the Affordable Care Act has changed which patients receive MAT in publicly-funded health facilities. Our aim was to determine the odds of MAT use among different subgroups of patients with OUD at publicly-funded treatment facilities after implementation of the ACA. Methods: Using Kilbourne's health disparities framework, we developed a multivariable logistic model to estimate odds of use of MAT after ACA implementation (2014-2015). We analyzed 175,562 episodes for patients with a diagnosis of opioid use disorder (OUD) from the public use Treatment Episode Data Set for admissions (TEDS-A, 2007-2015). We stratified by race, and our outcome of interest was MAT in the treatment plan. Covariates included number of prior treatment episodes, SES, age, sex, route of use, and number of substances used, treatment setting. Results: For episodes among Black, White, and Latinx subgroups respectively, the odds of MAT utilization were lowest for patients referred by the criminal justice system (AOR:0.04, CI: [0.02,0.05], AOR:0.13, CI: [0.11,0.14], AOR:0.05, CI: [0.03,0.08]) compared to another referral type. Among the same subgroups, the odds of MAT were also low for patients with psychological comorbidities (AOR:0.68, CI: [0.44,0.73], AOR:0.72, CI: [0.67,0.77], AOR:0.55, CI: [0.41,0.73]) compared to patients without psychological comorbidity. Conclusions: For patients of all race groups utilizing publicly funded treatment facilities in the first two years post-ACA, the odds of MAT were lowest for patients with psychological co-morbidity and patients referred through the criminal justice system, despite clinical guidelines which support MAT for both groups. Disparities in use of MAT continue to exist which may contribute to poorer health outcomes among vulnerable populations with OUD.

Willing to present orally: Yes

Financial Support: NIDA T32 Integrated Care for Addiction, HIV and HCV Research and Education (ICAHRE) training grant

Name of Sponsor (If you are NOT) a CPDD Member: Gary Kaplan

Email Address of Sponsor : gary.kaplan@va.org

Prefix: Ms.

First Name: Trina

Last Name: Johnson

Degrees: MA MD Ph.D etc:: BA, MSc

Email: natrina@bu.edu

Company Affiliation: Boston University

Mailing Address: PO BOX 170417

City: Boston

State: MA

Zip/Postal: 02117

Country: United States

Phone: 4157209000

ID: 621
Urban native american adults participating in aa: Drinking outcomes by attendance at culturally-adapted versus mainstream aa meetings

Katherine Hirchak, Center on Alcoholism, Substance Abuse and Addictions, khirchak@unm.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Other

Other Topic: Mutual help groups

Abstract: Background: Little is known about urban Native American (NA) adults' affiliations with AA and how such affiliations are associated with positive outcomes. Given that many treatment-seeking NA adults are referred to AA, it is important to document the relative effectiveness of these two forms of AA for urban NA adults. This study sought to describe how NA adults with alcohol use disorders benefited from AA affiliation over six-months (divided according to mainstream or CA-AA meeting). Additionally, this study examined if alcohol-related consequences differed between NA adults attending AA and CA-AA. Methods: A total of 61 NA adults (49.2% males) provided baseline, three- and six-month data in a longitudinal investigation of mainstream AA and CA-AA. Measures included a demographics survey, Alcoholics Anonymous Inventory, Form90, and the Short Inventory of Problems which includes five domains of alcohol-related negative consequences. Results: Lagged MLM indicated that NA adults attending only AA mainstream meetings ($n = 31$) reported significant increases in proportion abstinent days (PDA; $p < .05$) while participants ($n = 30$) who attended only CA-AA did not, ($p < .375$). AA attendance was associated with significant and large reductions in drinking intensity (DPDD) over six months ($g = 1.12$). Disregarding type of AA meeting attended, lagged MLM indicated that there was no association between frequency of AA attendance and reductions in the five domains of negative consequences. Cross-level interactions terms, however, indicated that NA adults who attended CA-AA meetings reported significant reductions in intrapersonal consequences ($p < .05$) and a trend for these participants to report reductions in impulse control-related consequences. Conclusions: Findings support referral for urban NA adults to both mainstream and CA-AA. The holistic nature of CA-AA appears to lead to better psychological adjustment for urban NA adults, with those attending both mainstream and CA-AA experiencing reduced DPDD and negative consequences.

Willing to present orally: No

Financial Support: NIAAA

Name of Sponsor (If you are NOT) a CPDD Member: Kamilla Venner

Email Address of Sponsor : kamilla@unm.edu

Prefix: Dr.

First Name: Katherine

Last Name: Hirchak

Email: khirchak@unm.edu

CC Email: khirchak@unm.edu

Company Affiliation: Center on Alcoholism, Substance Abuse and Addictions

Mailing Address: 2650 Yale Blvd SE, MSC11-6280

City: Albuquerque

State: New Mexico

Zip/Postal: 87106

Country: United States

Phone: 13608885072

ID: 622
Sociodemographic characteristics, adverse childhood experiences, substance use and psychiatric disorders among adolescent limited, adult onset, lifecourse persistent offenders and non-offenders in a general population survey

Bradley Kerridge, National Institute on Drug Abuse, bradleykerridge@gmail.com

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Epidemiology

Abstract: AIM: The major purpose of this study was to compare sociodemographic characteristics, adverse childhood experiences (ACEs) and substance use and psychiatric disorders between adolescent-limited (AL), adult onset (AO), lifecourse persistent (LP) and non-offender (NO) groups using a large US general population survey. METHODS: Face-to-face interviews in the 2012-2013 National Epidemiologic Survey on Alcohol and Related Conditions-III were used to assess differences in substance use, substance use disorders and other psychiatric disorders among distinct classes of offenders. RESULTS: The prevalences of AL, AO, and LP offender groups were 1.8%, 8.4% and 2.2% respectively. The odds of experiencing several ACEs and various types of psychopathology were greater among each offender group relative to NOs. LP offenders experience more ACEs than AL offenders, who, in turn experience more ACEs relative to AO offenders. Similarly, each offender group experienced greater substance use and psychopathology than NOs while LP offenders experienced more substance and psychopathology than AO offenders, who in turn, experienced more substance use and psychiatric disorders than AL offenders. CONCLUSION: This study supports further research on AO offending and suggested that exposure to ACEs and experiencing psychopathology among offender groups may differ more in degree or magnitude than in kind.

Willing to present orally: No

Financial Support: This study was sponsored by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) with supplemental funding from the National Institute on Drug Abuse (NIDA).

Name of Sponsor (If you are NOT) a CPDD Member: Wilson Compton

Email Address of Sponsor : wcompton@nida.nih.gov

Prefix: Dr.

First Name: Bradley

Middle Initial: T

Last Name: Kerridge

Degrees: MA MD Ph.D etc:: Ph.D.

Email: bradleykerridge@gmail.com

Company Affiliation: National Institute on Drug Abuse

Mailing Address: 179 Sharpstead Lane

City: Bethesda

State: MD

Zip/Postal: 20878

Country: United States

Phone: 8312460751

ID: 623
Trauma onset and cumulative trauma exposure moderate integrated treatment for posttraumatic stress disorder and substance use disorders

Tanya Saraiya, Adelphi University, tansarai@gmail.com

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Treatment

Abstract: Aim: Despite the efficaciousness of integrated behavioral treatments attending to posttraumatic stress disorder (PTSD) and substance use disorders (SUDs) concurrently, some patients in these treatments fail to show positive treatment responses. Theorists suggest that age of trauma onset and cumulative trauma exposure may yield more severe PTSD and SUD presentations thereby influencing treatment response. This study tested whether these trauma characteristics moderated PTSD and SUD treatment outcomes among participants receiving either an integrated PTSD and SUD treatment—Concurrent treatment for PTSD with prolonged exposure (COPE)—or a non-trauma focused treatment—Relapse Prevention (RPT). Methods: Participants (N=82) were recruited from 2008-2014 in New York City and randomized to COPE or RPT for the parent study. Generalized estimating equations assessed the moderation of PTSD or SUD outcomes by age of earliest trauma exposure and cumulative number of trauma exposures across 12 weeks of treatment and at follow-up. Results: There was no effect of age of earliest trauma (B=.007, SE=.009, p = ns) and the number of traumatic events (B=-.06, SE=.15, p = ns) on PTSD outcomes. Among SUD models, age of earliest trauma significantly predicted SUD outcomes (B=.022, SE=.007, p=.002), where participants who endorsed a younger age of first trauma exposure showed less of a reduction in substance use symptoms than participants endorsing an older age of trauma exposure. Comparatively, the number of traumatic events did not influence SUD outcomes (B=.105, SE=0.18, p = ns). Conclusion: Findings suggest that participants with varying numbers of trauma benefit from COPE and RPT interventions. However, individuals with an earlier age of trauma exposure may benefit less in SUD outcomes in both integrated and SUD-focused treatment. Substance use interventions, namely COPE and RPT, need to be modified to attend to patients with early trauma exposure, to thereby increase SUD treatment gains.

Willing to present orally: Yes

Financial Support: Support: NIDA R01DA023187

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Aimee Campbell, Ph.D.

Email Address of Sponsor : anc2002@cumc.columbia.edu

Prefix: Ms.

First Name: Tanya

Middle Initial: C

Last Name: Saraiya

Degrees: MA MD Ph.D etc:: M.A.

Email: tansarai@gmail.com

CC Email: tanyasaraiya@mail.adelphi.edu

Company Affiliation: Adelphi University

Mailing Address: 160 Convent Avenue Room

Address 2: Room 7/237

City: New York

State: NY

Zip/Postal: 10031

Country: United States

Phone: 2126508965

Travel Award: Won Women and Gender 2018

ID: 624
The development of novel G protein biased mu opioid receptor agonists as safer analgesics

Amy Alder, Victoria University of Wellington, amy.alder@vuw.ac.nz

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Behavior

Abstract: AIM: Chronic pain is a major problem worldwide, it affects 1 in 10 Americans and costs $635 billion per year. Current therapeutics such as morphine and fentanyl target the mu opioid receptor (MOR). However, these are associated with high abuse liability and side effects. Previous work shows that analgesic effects are induced via activation of G protein pathways, whereas β-arrestin recruitment induces side effects. Therefore, developing G protein biased MOR agonists provides a new avenue for the development of safer analgesics. METHODS: CHO cells stably expressing the human MOR were used to assess the G-protein bias of two structurally novel MOR selective analogues of Salvinorin A, kurkinorin and kurkinol using the DiscoverX HitHunter and PathHunter assays. Antinociceptive effects were assessed in the hot-water tail flick assay, respiratory depression was assessed using whole body plethysmography, and gastrointestinal motility via faecal accumulation, charcoal meal, and glass bead assays in male and female C57Bl/6 mice (n=330). Male Sprague Dawley rats (n=40) were used to assess abuse liability in the conditioned place preference assay. RESULTS: The novel MOR agonist Kurkinorin (bias factor = 0.57) induces centrally mediated analgesia in the tail-flick dose response assay (ED50 = 5 mg/kg), while having low abuse liability, and no significant effect on gastrointestinal transit or respiration. Whereas the more potent and G-protein biased MOR agonist, Kurkinol (bias factor = 0.14), induced potent antinociceptive effects (ED50 2.35 = mg/kg) without tolerance and showed no place preference. However, respiratory suppressive effects and inhibition of gastrointestinal motility remained. CONCLUSION: Both kurkinorin and kurkinol show potent antinociception and improved side-effects, however, these improvements do not correlate to levels of G-protein bias.

Willing to present orally: Yes

Financial Support: Travel Grants; Claude McCarthy travel grant (up to $5000, dates not announced yet) New Zealand Society for Biochemistry and Molecular Biology (NZSBMB) student travel grant (up to $750, dates not announced yet) CPDD Travel Awards for Early-career Investigators ($1000 USD, application deadline 15th December 2018) Faculty strategic research grant (up to $2000, dates not announced yet)

Name of Sponsor (If you are NOT) a CPDD Member: Bronwyn M. Kivell

Email Address of Sponsor : bronwyn.kivell@vuw.ac.nz

Prefix: Ms.

First Name: Amy

Middle Initial: F

Last Name: Alder

Email: amy.alder@vuw.ac.nz

CC Email: amy_random@hotmail.com

Company Affiliation: Victoria University of Wellington

Mailing Address: Victoria University of Wellington, Kelburn Parade

Address 2: School of Biological Sciences

City: Wellington

State: Wellington

Zip/Postal: 6012

Country: New Zealand

Phone: (+64) 273457621

ID: 625
The role of mitochondrial complexes in methamphetamine-induced vulnerability to develop Parkinson's disease

I. Daphne Calma, Rush University, isadora_calma@rush.edu

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Stimulants

Topic: Mechanisms of Action

Abstract: Aim: Methamphetamine (meth) abusers are at risk for developing Parkinson's disease (PD). We revealed that rats self-administering (SA) meth exhibit late-emerging PD-like motor deficits (bradykinesia), reductions in striatal tyrosine hydroxylase (TH) levels and mitochondrial dysfunction (cytochrome c translocation). Here, we tested the hypothesis that deficits in electron transport chain complexes underlie meth-induced mitochondrial dysfunction. Thus, we tested the ability of rotenone, a mitochondrial toxin that disrupts electron transport, to enhance the neuropathological effects of meth, when rotenone is given in a dose that is subthreshold to causing pathologies alone. Methods: Male Sprague-Dawley meth SA rats (0.1mg/kg/0.1mL infusion) and saline-yoked controls were subjected to 14 once-daily, 3hr sessions. On meth forced-abstinence (FA) day 14, rats were randomly assigned to receive vehicle or rotenone (1mg/kg/day) via subcutaneous osmotic minipumps for 6 days. Rats were sacrificed on meth FA 60. In the striatum, TH was measured using immunohistochemistry and mitochondrial complexes were assessed via immunoblotting. Results: TH staining showed a main meth effect, no rotenone effect, but a significant interaction. Post hoc analysis indicated meth SA+rotenone rats had lower levels of TH compared to meth SA+vehicle rats (p post hoc analysis revealed meth SA+rotenone rats had significant reductions in complex II compared to saline-yoked rats (p Conclusions: A subthreshold dose of rotenone was sufficient to exacerbate the TH loss and motor deficits seen in rats with a history of meth SA. Both meth and rotenone reduced the levels of mitochondrial complex I and II proteins. We plan to determine if changes in activity levels of these complexes are involved.

Willing to present orally: Yes

Financial Support: NIH ES02592

Name of Sponsor (If you are NOT) a CPDD Member: T. Celeste Napier

Email Address of Sponsor : celeste_napier@rush.edu

Prefix: Ms.

First Name: I. Daphne

Last Name: Calma

Degrees: MA MD Ph.D etc:: MS

Email: isadora_calma@rush.edu

CC Email: daphnecalma@gmail.com

Company Affiliation: Rush University

Mailing Address: 1215 N Orleans St

Address 2: Unit 404

City: Chicago

State: IL

Zip/Postal: 60610

Country: United States

Phone: 7086234446

ID: 626
Trajectories of self-reported illicit opioid use among people living with HIV

E. Jennifer Edelman, Yale School of Medicine, ejennifer.edelman@yale.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: AIDS/Immune

Abstract: Aim: To examine illicit opioid use (IOU) trajectories and associated factors among persons living with HIV (PLWH) receiving care from Veterans Health Administration (VA) facilities. Methods: We performed longitudinal analysis among PLWH enrolled in the Veterans Aging Cohort Study (VACS) from 2002-2012. We excluded patients with diagnosed opioid use disorder prior to baseline, significant illness by VACS Index score >100 (a well-validated prognosis score), or missing IOU data. IOU frequency was assessed based on self-reported non-medical "prescription painkillers (such as OxyContin, Vicodin, Percocet)" and/or heroin use in the past year at baseline and annual follow-up. We identified IOU trajectories using group-based trajectory models and used chi-square and ANOVA tests to determine baseline characteristics associated with escalating IOU. Results: Among our analytic sample (n=3,316), we identified four trajectories: 1) no lifetime IOU (32%); 2) stable abstinence from IOU (50%); 3) persistent IOU (8%); and 4) escalating IOU (10%). Compared to those with stable abstinence from IOU, those with escalating IOU were more likely to be divorced/separated/widowed (48% vs. 39%, p=0.045), report moderate/severe pain interfering with normal work (47% vs. 32%, p Those with escalating IOU were more likely to receive prescription opioids (39% vs. 26%, p 0.05). Conclusions: Among a VA sample of PLWH, one in 10 reported escalating IOU. Efforts to promote comprehensive pain treatments with non-opioid alternatives for this population are urgently needed.

Willing to present orally: Yes

Financial Support: R01DA040471; U10-AA13566

Prefix: Dr.

First Name: E. Jennifer

Last Name: Edelman

Degrees: MA MD Ph.D etc:: MD, MHS

Email: ejennifer.edelman@yale.edu

Company Affiliation: Yale School of Medicine

Mailing Address: 367 Cedar Street

Address 2: Rm 401A

City: New Haven

State: CT

Zip/Postal: 06510

Country: United States

Phone: 203-737-7115

Membership Year: 2016

Sponsor: Dr. David Fiellin, MD and Declan Barry, PhD

Travel Award: 2014

ID: 627
Characterization of oxycodone self-administration and withdrawal-associated negative affect in male and female rats

Suman Guha, McLean Hospital, Harvard Medical School, skguha@mclean.harvard.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Sex Differences

Abstract: AIM Opioid Use Disorder (OUD) is characterized by initial abuse, transition to impulsive–compulsive behavior, and emergence of withdrawal-associated long-lasting affective disorder and subsequent relapse. The closing gender gap in OUD highlights the importance of understanding its progression and neurobiological substrates in males and females. The aim of this study is to use a rat model of prescription OUD: oxycodone self-administration (SA) to delineate putative sex differences in acquisition and escalation of drug-taking; abstinence induced withdrawal signs; and post-abstinence cue-induced drug-seeking behavior. METHODS Adult male and female Sprague-Dawley rats learned to self-administer 0.06 mg/kg of oxycodone per infusion for 8d of 1-h short-access, followed by a 14d of 6-h long-access (LgA) and 14-days of abstinence. On abstinence day-15, rats underwent 3-h of saline SA in the previously drug-paired chamber. To monitor motivational state and reward sensitivity throughout the different addiction-like phases, intracranial self-stimulation (ICSS) was conducted 16-h after each days' SA session (1-h prior to the next days' SA session). RESULTS Both male and female rats readily acquired oxycodone SA and escalated drug intake during the LgA regimen. Pattern analysis showed that rats moved to a periodic pattern of drug intake that became more entrained in later phase of LgA oxycodone SA. Upon re-exposure to operant chambers previously paired with oxycodone SA, male and female rats reinstated drug-seeking. ICSS thresholds measured 16-h post oxycodone SA did not substantially change, suggesting that the motivation to respond for brain stimulation reward was not altered at that time point post-oxycodone SA. CONCLUSION Our results provide a nuanced characterization of oxycodone-intake in males and females during both short and long access periods that are thought to model the transition from abuse to OUD. No significant sex differences were observed under these conditions, which are broadly consistent with the closing gender gap in OUD in humans.

Willing to present orally: No

Financial Support: NIH/NIDA R01 Grant: R01DA045000 Title: Neurobiological mechanisms of prescription opioid withdrawal PI: Chartoff, Elena H

Name of Sponsor (If you are NOT) a CPDD Member: R. Kathryn McHugh, PhD

Email Address of Sponsor : kmchugh@mclean.harvard.edu

Prefix: Mr.

First Name: Suman

Middle Initial: K

Last Name: Guha

Degrees: MA MD Ph.D etc:: PhD

Email: skguha@mclean.harvard.edu

CC Email: suman7285@gmail.com

Company Affiliation: McLean Hospital, Harvard Medical School

Mailing Address: 115 Mill St, McLean Hospital, Mail Stop 146, Mailman Research Center 001

City: Belmont

State: MA

Zip/Postal: 02478

Country: United States

Phone: 6178552058

ID: 628
In vitro and in silico illumination of an allosteric serotonin 5-HT2C receptor (5-HT2CR) binding site

Eric Wold, University of Texas Medical Branch, eawold@utmb.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Chemistry

Abstract: AIM: Substance use disorders continue to be a significant unmet medical need in the United States and the continuum of pharmacological treatment options requires expansion and diversification. The serotonin 5-HT2C receptor (5-HT2CR) is an integral component of 5-HT signalling dynamics in psychostimulant abuse and mediates behavioral traits that are implicated in the emergence of cocaine use disorder and relapse. Our aim is to design 5-HT2CR positive allosteric modulators (PAMs) and characterize their mode of action in vitro and in silico to determine the disease-modifying potential for this class of molecules. METHODS: Small molecule PAMs were designed and optimized using structure-activity relationship studies integrating molecular descriptors, biological activity, and pharmacokinetic parameters. Structure-based design refinements were made using the ergotamine (ERG)-5-HT2CR X-ray crystallographic structure complex (PDB: 6BQG). In vitro characterization of G protein activation was achieved via an intracellular calcium mobilization assay in 5-HT2CR-expressing cells, while 5-HT2AR-expressing cells were employed for counter-screening. In silico assessment of PAMs was accomplished using Schrödinger computational chemistry tools and the aforementioned 5-HT2CR complex. RESULTS: Several 5-HT2CR PAMs were identified to lack agonist actions, but enhance 5-HT-evoked signaling in stably transfected h5-HT2CR cells. A signature upward shift of 5-HT Emax ≥ 20% has been observed for multiple PAMs. In silico, 5-HT was dynamically docked to the ERG-5-HT2CR complex, resulting in a 5-HT-bound model and allowing for the energy minimization of previously ERG-constrained residues near extracellular regions. Molecular docking of 5-HT2CR PAMs to the model resulted in the discovery of a putative PAM binding site with interactions spanning transmembrane domain 6 (TM6), extracellular loop 2 (ECL2), and a hydrophobic pocket between TM2 and TM3. CONCLUSION: Based upon results showing significant potentiation at the 5-HT2CR and in silico elucidation of a putative, discrete binding site, we can partially determine PAM mode of action and describe necessary molecular interactions for further 5-HT2CR PAM optimization.

Willing to present orally: Yes

Financial Support: Supported by grants R01 DA038446 (JZ/KAC), K05 DA020087 (KAC), P30 DA028821 (KAC), T32 DA07287 (CTW, EAW), F31 DA038922 (CTW), F31 DA045511 (EAW)

Name of Sponsor (If you are NOT) a CPDD Member: Kathryn A. Cunningham, PhD

Email Address of Sponsor : kcunning@utmb.edu

Prefix: Mr.

First Name: Eric

Middle Initial: A.

Last Name: Wold

Email: eawold@utmb.edu

Company Affiliation: University of Texas Medical Branch

Mailing Address: 2116 Church St.

Address 2: Apt. 2A

City: Galveston

State: TX

Zip/Postal: 77550

Country: United States

Phone: 2814551925

ID: 629
The relationship between post-traumatic stress disorder symptoms and alcohol problems is moderated by Criterion A, trauma type, and traumatic load in young adults

Casey Guillot, University of North Texas, casey.guillot@unt.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Alcohol

Topic: Behavior

Abstract: Aims: An abundance of prior research has revealed high rates of comorbidity between post-traumatic stress disorder (PTSD) and alcohol use disorder (AUD). Some prior research also has evidenced that PTSD symptoms are related to alcohol problems in young adults, specifically in college students. Although one previous study examined a nationally representative sample of U.S. adults and found that different traumatic events were more often associated with greater odds of AUD in individuals without PTSD compared to individuals with PTSD, to our knowledge no prior study has investigated if the relationship between PTSD symptoms and alcohol problems is moderated by Criterion A (i.e., exposure to any traumatic event vs. not), trauma type, or traumatic load (i.e., number of trauma types experienced). Methods: As part of a cross-sectional survey study, 609 college students (young adults between the ages of 18 and 35; 70.6% female; M age = 21) were administered self-report measures of demographic characteristics, PTSD symptoms, traumatic experiences, alcohol consumption and problems, and symptoms of depression and anxiety. Results: PTSD symptoms were significantly correlated with alcohol problems ($r = .31$, $p \beta = -.22$, $p \beta = .06$, $p = .07$), accidental trauma ($\beta = -.10$, $p = .005$), sexual trauma ($\beta = -.07$, $p = .04$), exposure to nonsexual violence ($\beta = -.06$, $p = .04$), severe bodily illness/injury/suffering ($\beta = .06$, $p = .04$), other very stressful life experiences ($\beta = -.09$, $p = .005$), and traumatic load ($\beta = -.17$, $p < .001$). Conclusions: Somewhat consistent with one prior study, most PTSD symptom relations with alcohol problems were weakened by trauma exposure in adults.

Willing to present orally: No

Financial Support: None

Prefix: Dr.

First Name: Casey

Middle Initial: R.

Last Name: Guillot

Degrees: MA MD Ph.D etc:: PhD

Email: casey.guillot@unt.edu

Company Affiliation: University of North Texas

Contact Title: Assistant Professor

Mailing Address: Department of Psychology

Address 2: 1155 Union Circle #311280

City: Denton

State: TX

Zip/Postal: 76203-5017

Country: United States

Phone: 940-369-8426

Membership Year: 2014

Sponsor: Dr. Adam Leventhal, Ph.D. and Jennifer Tidey

Travel Award: 2017

Research Interests: Behavioral Pharmacology,Molecular Biology,Pharmacology

ID: 630
An examination of binge eating disorder assessments for use in primary care settings: A systematic review

Jordan Schueler, Texas A&M University, jschueler1@tamu.edu

Abstract Category: Literature Review

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Food addiction

Topic: Other

Abstract: Abstract: AIM: Binge eating disorder (BED) is a type of "food addiction" that was recently added to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition in 2013. However, the research on symptoms, risk factors, and consequences concerning BED has been a topic of interest for the past few decades. It is most commonly characterized by a loss of control while eating, and the consumption of atypically large amounts of food in short periods of time. BED is found among individuals of various backgrounds, and is estimated to be more prevalent than both anorexia nervosa and bulimia nervosa combined. Unfortunately, this information has not quite reached primary care settings, where many patients coming in for standard appointments are burdened by compulsive eating behaviors, but are not screened for BED. This is in part due to a lack of knowledge among general practitioners and physicians of appropriate scales that can properly screen patients and determine their risk for developing BED. Therefore, this systematic review was conducted in order to evaluate relevant measures. METHODS: This literature review utilized the databases PsycINFO and MEDLINE. Inclusion criteria consisted of search terms, such as "binge eating" and "questionnaire", that were required to be present in the title and abstract of the articles. RESULTS: A total of 566 articles were systematically screened down to 64 scales. The final list contained 9 scales, and these scales were determined to be the best fit for primary care screening for BED due to their brevity, sensitivity and specificity for detecting BED, and widespread use in the literature. CONCLUSION: Further research assessing the utility of these scales in fast-paced, medical settings may produce improved accessibility to these measures and more frequent use in primary care.

Willing to present orally: Yes

Financial Support: Not applicable

Name of Sponsor (If you are NOT) a CPDD Member: Sherecce A. Fields, PhD

Email Address of Sponsor : safields@tamu.edu

Prefix: Ms.

First Name: Jordan

Last Name: Schueler

Degrees: MA MD Ph.D etc:: B.A.

Email: jschueler1@tamu.edu

Company Affiliation: Texas A&M University

Mailing Address: 1550 Crescent Pointe Pkwy

Address 2: Apt. 4301

City: College Station

State: Texas

Zip/Postal: 77845

Country: United States

Phone: 7723236093

ID: 631
Quetiapine treatment of cannabis dependence: A randomized placebo-controlled clinical trial

John Mariani, Columbia University NYSPI, jm2330@columbia.edu

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Treatment

Abstract: AIM: To test the effect of quetiapine on reduction of cannabis use as compared to placebo. METHODS: In a 12-week randomized double-blind placebo-controlled trial, the efficacy of quetiapine (fixed flexible dosing up to 300 mg nightly) for the treatment of cannabis dependence (CD) was tested in 130 outpatients. At each observed week in the study, cannabis use was categorized into three groups: high use (or 0-2 abstinent days), medium use (or 3-5 abstinent days) and low use (or 6-7 abstinent days) and the daily dollar value of cannabis used was averaged over a one-week period. RESULTS: The overall week by treatment arm interaction was marginally significant for the abstinent days per week outcome ($\chi 2$ (2)=5.56, p=0.0621). Specifically, the odds of low use compared to high use did not significantly differ over time between treatment arms (p=0.1185). However, the odds of medium use compared to high use did significantly differ over time between treatment arms (p=0.0289). With each week in the study, the odds of medium use compared to high use significantly increased 1.17 times in quetiapine group (p < 0 .0001), but only 1.05 times in placebo group (p=0.1599). In the last week of the study, the odds of medium use (compared to high use) among patients on quetiapine was 3.3 times (p=0.0005) the odds of medium use among patients on placebo. The decrease in daily amount of cannabis used over time did not significantly differ between the quetiapine vs. placebo arms; the interaction between study week and study arm was not significant (F1,930=0.89, p=0.35). CONCLUSION: Quetiapine treatment of CD is associated with participants moving from high to medium frequency of cannabis use, but not low frequency. Non-abstinent outcomes for CD and their potential clinical utility require further investigation.

Willing to present orally: Yes

Financial Support: NIDA R01 DA031826

Name of Sponsor (If you are NOT) a CPDD Member: JOHN MARIANI MD

Email Address of Sponsor : jm2330@columbia.edu

Prefix: Dr.

First Name: John

Middle Initial: J.

Last Name: Mariani

Degrees: MA MD Ph.D etc:: M.D.

Email: jm2330@columbia.edu

CC Email: jm2330@columbia.edu

Company Affiliation: Columbia University NYSPI

Contact Title: Associate Professor

Mailing Address: 1051 Riverside Drive, Unit 66

City: New York

State: NY

Zip/Postal: 10032

Country: United States

Phone: 2122136088

Fax: 6465881984

Membership Year: 2004

Sponsor: Frances R. Levin, M.D. and Herbert Kleber, M.D,

ID: 632
Frontoparietal connectivity as a potential EEG biomarker for substance use disorder: Interaction of stimulants and opioids

Rayus Kuplicki, Laureate Institute for Brain Research, rkuplicki@laureateinstitute.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Imaging

Abstract: AIM: Frontoparietal or executive control network (ECN) is recognized for its role in different executive functions such as inhibitory control and working memory in healthy and clinical populations including drug addiction. Coherence between dorsolateral prefrontal (F3 and F4) and posterior parietal cortices (P3 and P4) in EEG data as a measure of frontoparietal connectivity (FPC) is not explored for the effect of opioid and stimulant use and their interaction. METHODS: FPC is measured in 135 (74 male) participants with stimulant and/or opioid use disorders in their early abstinence and 54 (26 male) healthy controls using resting state EEG. To extract the coherence, the EEG data were first filtered into the corresponding frequency bands (Theta=0.5-4, Delta=4-8, Alpha= 8-16 and Beta=16-32 Hz). The coherence was estimated for 4 sites or network edges (F3P3, F4P4, P3P4, and F3F4) using power spectrum density by applying Welch periodogram. RESULTS: In a linear mixed effects model controlled for age, there is a significant effect of opioid and stimulant use in both site and frequency band in FPC with a significant negative interaction between these two drugs. There is no significant effect of neuropsychological profile for executive functioning in both healthy and substance use groups and abstinence duration within the substance use group. CONCLUSION: FPC measured with 4 electrodes can be a simple and scalable biomarker for neuroscience-informed interventions in addiction medicine. Both stimulants and opioids are associated with changes the FPC. But, negative interaction between opioids and stimulants in FPC could provide a complex individualization challenge for neuroscience informed interventions such as closed loop transcranial electrical stimulation.

Willing to present orally: Yes

Financial Support: William K Warren Foundation

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Stacy Daughters

Email Address of Sponsor : mpaulus@laureateinstitute.org

Prefix: Dr.

First Name: Rayus

Last Name: Kuplicki

Degrees: MA MD Ph.D etc:: PhD

Email: rkuplicki@laureateinstitute.org

CC Email: rkuplicki@laureateinstitute.org

Company Affiliation: Laureate Institute for Brain Research

Mailing Address: 6655 South Yale Ave. Tulsa, OK

City: Tulsa

State: Oklahoma

Zip/Postal: 74136

Country: United States

Phone: 9186361904

ID: 633
Cumulative trauma and drug use outcomes among a sample of Mexican-American women living in a marginalized community

Alice Cepeda, University of Southern California, alicecep@usc.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Other

Other Topic: Trauma

Abstract: AIM We identify profiles of cumulative trauma experienced across the life course for marginalized women and the associated drug use outcomes. METHODS Data are from an ongoing longitudinal study examining long-term health outcomes among a cohort of Mexican American women (n=199). A latent class analysis (LCA) model estimated profiles of cumulative trauma using standardized scales of victimization (i.e., Childhood Trauma Questionnaire, Stressful Life Events Questionnaire, and Revised Conflict Tactic Scale) and the following covariates: age, years of education, income, and number of children. Bivariate measures of association examined drug dependence (i.e., Severity of Dependence Scale) and injecting drug use (IDU) history. RESULTS The four-class solution was the best fitting model with the profiles characterized as (1) "Moderate for all Forms of Violence" (MAFV, 29.2% of sample), (2) "Extreme Child Abuse" (ECA, 15.6%), (3) "Extreme IPV" (EIPV, 45.3%), and (4) "Extreme for All Forms" (EAF, 9.9%). All of the drug use outcomes varied significantly (p 60% opiates, >70% marijuana, >75% crack/cocaine, and >70% methamphetamine. IDU rates also varied across profiles: 20.0%, 52.6%, 31.0%, and 40.0%, respectively. CONCLUSION Findings suggest the importance of understanding different types of cumulative trauma experiences across the life course that contribute to deleterious polydrug use outcomes for women. This research lays the foundation for tailored interventions that identify critical individual abuse and life events across the lifespan that will reduce health disparities among this and other similar populations who have gone underrepresented in existing treatment services.

Willing to present orally: Yes

Financial Support: R01DA039269

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Danielle C. Ompad

Email Address of Sponsor : danielle.ompad@nyu.edu

Prefix: Dr.

First Name: Alice

Last Name: Cepeda

Degrees: MA MD Ph.D etc:: PhD

Email: alicecep@usc.edu

CC Email: esmerami@usc.edu

Company Affiliation: University of Southern California

Mailing Address: 1150 South Olive Street

Address 2: Suite 1400

City: Los Angeles

State: CA

Zip/Postal: 90015

Country: United States

Phone: 213-821-6464

Biography: Dr. Cepeda is currently an associate professor at USC. She was previously in the Department of Sociology and associate director of the Center for Drug and Social Policy Research at the University of Houston. She received her doctoral degree from the City University of New York, Graduate Center. Her work has focused on the social epidemiology of drug use and the related health risk behaviors that disproportionately affect urban Mexican-origin minority populations, including violence, HIV/STI infection risks and mental health conditions. Cepeda's research has also highlighted the unique gendered experiences encountered by females within this cultural context. Her research publications have explored the complex of social determinants, including familial, neighborhood and socio-ecological factors that contribute to drug use and negative social and health outcomes among vulnerable minority populations. Cepeda has been a recipient of several federal National Institutes of Health grants.

ID: 634
Assessment of the antinociceptive effects and dependence liability of novel fentanyl analogues in CD1 mice

Kyle Urquhart, University of Arkansas for Medical Sciences, KRUrquhart@uams.edu

---

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Behavior

Abstract: AIM Characterize the abuse liability of fentanyl, morphine, and six fentanyl analogues by assessing the antinociception and withdrawal elicited by each compound in the mouse Methods We used warm-water tail withdrawal with 50˚C and 55˚C water to measure latencies to removing tails from water. Dose effect-curves (DECs) were generated to determine the potencies for eliciting antinociception. To assess withdrawal, we treated animals with injections spaced 12 hours apart. Following the first two injections on day 1, we precipitated withdrawal on day 2, 3 hours after the final injection of agonist using the opioid antagonist naloxone. Sessions lasted 20 minutes and the number of jumps were recorded. DECs for jumping were generated first using a dose one-log unit higher than the fully effective antinociceptive dose and precipitating withdrawal with 3, 10, and 30 mg/kg of naloxone. Agonist DECs were generated by precipitating with 30 mg/kg naloxone since it produced more jumping than 3 or 10 mg/kg, and potency for eliciting withdrawal was compared among the compounds. Results Antinociception: Fentanyl was the most potent compound in eliciting antinociception ED50 = 0.122 (0.0754—0.162), and morphine was the least potent ED50 =12.0 (6.83—16.4). All fentanyl analogues fell in between these two potencies. All test compounds were also fully effective in this assay. Dependence: β-Hydroxy-thiofentanyl ED50 = 20 was significantly less sensitive to the effects of naloxone than all test compounds except acryl fentanyl ED50 = 9.1 (5.3-15.7). All other test compounds were similar in their sensitivites to naloxone. When using 30 mg/kg of naloxone to precipitate withdrawal, fentanyl was significantly more potent ED50 = 1.4 (1.05 – 1.85) than all compounds except acryl fentanyl ED50 = 1.55 (1.19-2.02) and furanyl fentanyl ED50 = 2.43 (1.42-4.15), and morphine was significantly less potent 59.04 (33.93-102.73) than all compounds tested Conclusion These results suggest fentanyl compounds have similar abuse potential to morphine and fentanyl and provides valuable information regarding the compounds fueling our nation's opioid crisis.

Willing to present orally: No

Financial Support: BAAHHSF223201610079C

Name of Sponsor (If you are NOT) a CPDD Member: William Fantegrossi

Email Address of Sponsor : WEFantegrossi@uams.edu

Prefix: Mr.

First Name: Kyle

Middle Initial: R

Last Name: Urquhart

Email: KRUrquhart@uams.edu

Company Affiliation: University of Arkansas for Medical Sciences

Mailing Address: 4301 West Markham St., Slot 611

City: Little Rock

State: AK

Zip/Postal: 72205

Country: United States

Phone: 5016865394

ID: 635
Police characteristics associated with preferences for referral of people who inject drugs to harm reduction services in Tijuana, Mexico

Pieter Baker, University of California San Diego, pabaker@ucsd.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Policing and Injection Drug Use

Topic: Other

Other Topic: Policing Practices and Harm Reduction

Abstract: AIM: Police constitute a critical structural component of the HIV and drug-related risk environment for people who inject drugs (PWID). Referrals to harm reduction services represent an opportunity to align policing with public health by reducing HIV and drug-related harms among PWID. We aimed to identify police characteristics associated with referring PWID to addiction treatment services and syringe exchange programs (SEP). Methods: Between January and June 2018, 305 police officers in Tijuana completed surveys about preferences for referring PWID to harm reduction services and attitudes and behaviors involving interactions with PWID. Log-binomial regression was used to estimate prevalence ratios and model policing characteristics, attitudes, and behaviors associated with support for referring PWID to addiction treatment sites and SEP. Results: Respondents were primarily male (89%) with a median age of 38 years (IQR:33-43). Most of the officers (89%) indicated that addiction services should be included in a referral whereas 47% supported SEPs as referral locations. Officers indicating addiction services were less likely to be assigned to high drug use districts along the Tijuana River Canal (adjusted Prevalence Ratio [aPR]=0.50, 95%CI=0.24,1.08) and more likely to agree that methadone programs reduce crime (aPR=4.66, 95%CI=2.05,9.18). Officers supporting SEP referrals were typically younger (aPR=0.96 95%CI=0.93,0.98), less likely to be assigned to districts along the canal (aPR=0.50, 95%CI=0.29,0.87), more likely to believe that methadone programs reduce crime (aPR=2.43, 95%CI=1.30,4.55) and less likely to believe that SEP increase the risk of NSI for police (aPR=0.44, 95%CI=0.27,0.71). Conclusion: Positive attitudes towards methadone and SEP were strongly associated with referral preferences among police. Ensuring that police understand the public health benefits of harm reduction may promote referrals to services that reduce infectious disease and drug-related harms among PWID in places like Tijuana. Positive attitudes towards harm reduction must be promoted alongside the expansion of services.

Willing to present orally: Yes

Financial Support: Support for the Escudo project was provided through grants from the Open Society Foundations Latin America Program grant OR2013-11352 and OR2014-18327, UCSD Center for AIDS Research International Pilot Grant NIAID 5P30AI036214, and the National Institute on Drug Abuse (NIDA; R01DA039073 and R37DA019829). The Fogarty International Center of the National Institutes of Health under award Number D43TW008633 supported JA. NIDA supported JAC through K01DA043421. UC-MEXUS/CONACT scholarship supported JA. UC MEXUS Dissertation Grant DI 15-42. These findings resulted in part from research supported by the University of California, San Diego, Center for AIDS Research (CFAR), an NIH-funded

program (P30 AI036214), which is supported by the following NIH Institutes and Centers: NIAID, NCI, NIMH, NIDA, NICHD, NHLBI, NIA, NIGMS, and NIDDK.

Name of Sponsor (If you are NOT) a CPDD Member: Javier Cepeda, PhD, MPH

Email Address of Sponsor : jcepeda@ucsd.edu

Prefix: Mr.

First Name: Pieter

Last Name: Baker

Degrees: MA MD Ph.D etc:: MPH

Email: pabaker@ucsd.edu

CC Email: p2baker@ucsd.edu

Company Affiliation: University of California San Diego

Mailing Address: 9500 Gilman Dr

City: La Jolla

State: CA

Zip/Postal: 92093-0507

Country: United States

Phone: 7606705130

ID: 636
Resource allocation index as a potential fMRI-based biomarker for substance use disorder: Negative findings in T1000 Cohort

Matt Moradi, Laureate Institute for Brain Research, mam937@utulsa.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Other (specify)

Other Drug Category: Stimulants, Opioids, Polydrug

Topic: Imaging

Abstract: Aim: Resource Allocation Index (RAI) as a connectivity measure of Default Mode Network (DMN), Executive Control Network (ECN) and Salience Network (SN) has been introduced and applied in some literature with relatively small sample sizes as a new biomarker for substance use disorder. Replicating such results with a large participant group, could help to establish such measures as reliable and objective tools for addiction medicine.
Methods: Resting-state fMRI data from a group of 191 participants consisting 58 healthy controls (HC) and 133 substance users (SU) with stimulant and/or opioid use disorders in their early abstinence as subset of T1000 cohort at Laureate Institute for Brain Research (LIBR) in Tulsa, OK were analyzed. Using subject-level independent component analysis (S-ICA) for cleaning up the data, Group-level ICA (G-ICA) for detecting networks of interest (resulting 2 SNs, 3 DMNs and 2 ECNs) and dual regression for timeseries extraction, subject-specific RAI measures were computed in 24 possible combinations of these networks and as it is hypothesized, it was studied whether RAI would tend to be lower in SUs compared to HCs. Results: There was not a significant difference between RAI measures in SUs and HCs groups and also among the sub-groups of SUs (Stimulant users, Opioid Users and both). There is also no effect of abstinence duration alongside with subgroup variables on all possible RAI measures, as tested by linear model fitting.
Conclusion: There is a wide range of parameter space to measure RAI. This result cannot support the findings from earlier studies using RAI as a diagnostic marker for SUD. Future studies should still explore RAI as a predictive or treatment response biomarker.

Willing to present orally: Yes

Financial Support: Laureate Institute for Brain Research (LIBR)

Name of Sponsor (If you are NOT) a CPDD Member: Dr. Martin Paulus/ Stacy Daughters agreed

Email Address of Sponsor : mpaulus@laureateinstitute.org

Prefix: Mr.

First Name: Matt

Last Name: Moradi

Degrees: MA MD Ph.D etc:: Ms

Email: mam937@utulsa.edu

Company Affiliation: Laureate Institute for Brain Research

Mailing Address: 8403 E 60 th st #2738

City: Tulsa

State: OK

Zip/Postal: 74145

Country: United States

Phone: 9189547447

ID: 637
Creating a digital platform to support an integrated system of care for youth substance use treatment and recovery supports

Kasey Claborn, University of Texas Dell Medical School, kasey.claborn@austin.utexas.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Polydrug

Topic: Adolescent

Abstract: AIMS: The health care system infrastructure is designed to deliver acute episodic care and lacks necessary resources to optimally manage complex, chronic conditions like addiction. Many structural and systemic barriers impede the integration of cross-sector services for treatment of addiction. This fragmented system impedes youth with addictions accessing treatment and maintaining long-term recovery. The present study aimed to: (1) gather data to inform a digital platform to integrate addiction treatment and recovery supports for youth and emerging adults; and (2) identify pain points and cost drivers across stakeholders providing services. METHODS: This qualitative study included individual interviews with n=20 clinician stakeholders, four listening sessions with youth and parents/allies, and three working groups with key stakeholders. Research questions: What are the perceived gaps in the system for youth, families, & clinicians? What are current interagency processes that facilitate/impede care coordination? What are stakeholders initial impressions of a digital platform? RESULTS: Themes related to systemic pain points emerged at the organizational-, provider-, and patient-levels, and centered around treatment initiation (e.g., knowledge, resource navigation), during treatment (e.g., care transitions, data sharing), and during the recovery process (e.g., knowledge, linkage to wrap-around services). System-level cost drivers included human capital, “frequent flyers”, and time expenditures due to inefficient work flow processes across the system of care. CONCLUSIONS: These findings highlight the need for systems-level intervention focused on improving coordinated care across service providers, decreasing duplication of assessment protocols, and developing a patient-centered care system. These data have informed development of a youth-oriented substance use system of care model that incorporates a digital platform which will be presented.

Willing to present orally: Yes

Financial Support: This research was supported by grant number R34 DA041237 from the National Institutes of Drug Abuse and the St. David's Foundation.

Name of Sponsor (If you are NOT) a CPDD Member: Lori Holleran-Steiker

Email Address of Sponsor : lorikay@mail.utexas.edu

Prefix: Dr.

First Name: Kasey

Last Name: Claborn

Degrees: MA MD Ph.D etc:: PhD

Email: kasey.claborn@austin.utexas.edu

CC Email: kasey_claborn@brown.edu

Company Affiliation: University of Texas Dell Medical School

Mailing Address: Health Discovery Building

Address 2: 1701 Trinity Street, STOP Z0600

City: Austin

State: TX

Zip/Postal: 78712-1873

Country: United States

Phone: 512-495-5945

ID: 638
Longitudinal associations between cannabis use motives and cannabis use, mental health functioning, and physical health functioning among a cohort of medical cannabis patients with chronic pain

Kipling Bohnert, University of Michigan and Department of Veterans Affairs, kiplingb@med.umich.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Epidemiology

Abstract: Aim: Although cannabis use motives may be related to adverse health outcomes, few prior studies have examined prospective links between motives and outcomes. Additionally, little is known regarding motives among the growing population of adults who use cannabis medically. In this cohort of medical cannabis patients with chronic pain, we evaluate prospective relations between cannabis use motives and cannabis use and mental and physical health functioning. Methods: Adults ages ≥21 years with scheduled appointments for medical cannabis certification at participating clinics in Michigan were approached in waiting areas, and those who consented, completed a screening survey. Responses to the screening were used to determine eligibility for a prospective cohort study of medical cannabis patients with chronic pain. Of the 1485 patients who completed screening, 801 (54%) met eligibility and agreed to participate in the cohort. Cohort assessments occurred at baseline and six-, 12-, 18-, and 24-months of follow-up, and included the following self-reported measures: the 12-factor, 36-item Comprehensive Marijuana Motives Questionnaire (CMMQ); frequency of cannabis use; the 12-Item Short Form Health Survey (SF-12). Separate linear Generalized Estimating Equations (GEEs) modeled relations between baseline CMMQ domains and each of the cannabis use and functioning outcomes during follow-up. CMMQ domains were simultaneously entered into the GEEs, which also included baseline values of the outcomes of interest as covariates. Results: Greater endorsement of experimentation motives was associated with a higher frequency of cannabis use during follow-up (β=1.7, $p < 0$ .05). Greater social anxiety motives were associated with poorer mental health functioning during follow-up (β=-0.5, $p < 0$ .05). CMMQ domains were not associated with physical functioning. Conclusions: Individuals using cannabis for chronic pain may have diverse other reasons for use. The finding that those with greater social anxiety motives have poorer prospective mental health functioning is consistent with results from prior cross-sectional studies, and merits further investigation.

Willing to present orally: Yes

Financial Support: VA CDA 11-245; NIDA R01 DA033397

Name of Sponsor (If you are NOT) a CPDD Member: Mark Ilgen

Email Address of Sponsor : marki@med.umich.edu

Prefix: Dr.

First Name: Kipling

Middle Initial: M

Last Name: Bohnert

Degrees: MA MD Ph.D etc:: Ph.D.

Email: kiplingb@med.umich.edu

Company Affiliation: University of Michigan and Department of Veterans Affairs

Mailing Address: 2800 Plymouth Road

Address 2: Building 16

City: Ann Arbor

State: MI

Zip/Postal: 48109

Country: United States

Phone: 7342227416

ID: 639
An environmental scan of service delivery models for injectable opioid agonist treatment in Canada

Erin Eydt, British Columbia Centre on Substance Use, erin.eydt@bccsu.ubc.ca

---

Abstract Category: Program Descriptions

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: Aim: The Canadian Research Initiative on Substance Misuse (CRISM) is a national initiative for substance misuse research modeled after the National Institute on Drug Abuse's Clinical Trial Network. The CRISM injectable opioid agonist treatment (iOAT) initiative seeks to generate and mobilize knowledge rapidly to address the opioid crisis across Canada. A national environmental scan of iOAT services was undertaken to: 1) map iOAT service delivery models currently in operation; 2) identify locales affected by the overdose epidemic with ongoing service delivery gaps; and 3) facilitate the establishment of new programs, and strengthen existing programs. Methods: All iOAT programs nominated an operational point of contact to liaise with the wider team, and complete a brief survey by phone or via email. Descriptive information was collected on: location, client demographics, model of service delivery, and facilitators and barriers to operations. Results: As of 1 September 2018, there were 10 unique iOAT service settings in operation across Canada. All services offered injectable hydromorphone, and only one had access to diacetylmorphine (i.e. medical heroin). There were seven models of service delivery, including housing, pharmacy, and clinic-based iOAT services. In all settings, iOAT was provided under the supervision of a health care professional (i.e. physician, nurse, or pharmacist). Shared facilitators included a focus on patient-centered care and relationship building, and the provision of access to additional social and health services. Common barriers included lack of access to diacetylmorphine, treatment induction challenges, and engagement with minority groups. Conclusion: Current iOAT programs are diverse but share a fundamental approach to care, and are responsive to local context as well as individual client needs. This environmental scan has generated a baseline on which to evaluate change over time and provides a tool for knowledge translation to inform stakeholders involved in iOAT policy and practice.

Willing to present orally: Yes

Financial Support: Supported by the Canadian Research Initiative on Substance Misuse - CIHR grant reference FRN 154824

Name of Sponsor (If you are NOT) a CPDD Member: Evan Wood

Email Address of Sponsor : evan.wood@bccsu.ubc.ca

Prefix: Ms.

First Name: Erin

Last Name: Eydt

Email: erin.eydt@bccsu.ubc.ca

CC Email: erin.eydt@gmail.com

Company Affiliation: British Columbia Centre on Substance Use

Mailing Address: 400-1045 Howe St

City: Vancouver

State: British Columbia

Zip/Postal: V6Z 2A9

Country: Canada

Phone: 17788869407

ID: 640
Safety of oral lisdexamfetamine in adults with methamphetamine dependence: A dose-escalating phase-2 study

Krista Siefried, The National Centre for Clinical Research on Emerging Drugs (NCCRED), Krista.Siefried@svha.org.au

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Treatment

Abstract: Introduction and Aims: Methamphetamine dependence is a growing global health problem with no approved pharmacotherapy. Agonist-type pharmacotherapies have been used successfully to treat opioid and nicotine dependence and are being studied for the treatment of methamphetamine dependence. One potential candidate is lisdexamfetamine (LDX), a pro-drug of dexamphetamine, with longer lasting therapeutic action and lower abuse potential. We aimed to determine the safety of LDX in this population at doses higher than those approved for attention deficit hyperactivity disorder (ADHD). Materials and Methods: A phase-2, open-label, single-group trial across two Australian outpatient sites. Sixteen adults (75% male) using MA dependently for >2 years (and ≥14 of prior 28 days) received supervised daily dispensing of ascending doses of LDX from 100mg to 250mg over 4 weeks, a 4 week reducing dose regimen (250mg to 100mg), and follow-up 4 weeks after cessation. Participants and dispensers were blinded to dose change. Results: Fourteen of the 16 participants commenced on the escalation regimen reached the primary endpoint of 250mg LDX at 4 weeks. No participants were withdrawn for adverse events. One serious adverse event (suicidal ideation) occurred at the end of the reducing regimen. Patient-rated treatment tolerability using the Treatment Satisfaction Questionnaire for Medication was high. Days of use (of prior 28) reduced from a median of 21 (IQR:16-23) at regimen start to 13 (IQR:11-17) at maximum dose (4 weeks). Craving scores using a 100mm VAS scale reduced from a median of 64 (IQR:23-82) to 31 (IQR:15-16); Amphetamine Withdrawal Scale scores reduced from a median of 15 (IQR: 9-17) to 11 (IQR:7-15) over the same period. Discussion: This study is the first to demonstrate the safety and tolerability of LDX doses higher than used for ADHD, among a methamphetamine dependent population. Findings suggest feasibility; further efficacy research is warranted. A multicentre randomised controlled trial is underway.

Willing to present orally: Yes

Financial Support: This project was funded by the New South Wales Ministry of Health (Australia).

Name of Sponsor (If you are NOT) a CPDD Member: Adrian Dunlop

Email Address of Sponsor : Adrian.Dunlop@hnehealth.nsw.gov.au

Prefix: Dr.

First Name: Krista

Middle Initial: J

Last Name: Siefried

Degrees: MA MD Ph.D etc:: RN, BScN, PhD

Email: Krista.Siefried@svha.org.au

Company Affiliation: The National Centre for Clinical Research on Emerging Drugs (NCCRED)

Mailing Address: St Vincent's Hospital

City: Sydney

State: New South Wales

Zip/Postal: 2010

Country: Australia

Phone: +61410360102

ID: 641
Evaluating the impact of the Affordable Care Act (ACA) on medication for addiction treatment utilization for pregnant women with opioid use disorder

Sugy Choi, Boston University School of Public Health, sugychoi@bu.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Policy

Abstract: AIM: Increasing rates of opioid use disorder (OUD) during pregnancy is alarming due to the associated adverse perinatal outcomes, including neonatal abstinence syndrome. Pharmacotherapy is recommended for pregnant women with OUD although the utilization remains low. The Patient Protection and Affordable Care Act (ACA) expanded coverage for mental health and substance use disorder services for vulnerable populations such as pregnant women. However, the impact of ACA on medication for addiction treatment (MAT) utilization among pregnant women has been understudied. METHODS: Using the public use Treatment Episode Data Set for admissions (TEDS-A, 2007-2015), we identified MAT episodes with OUD diagnosis among pregnant women. The primary outcome measure, MAT, was defined as receipt of methadone and buprenorphine, and MAT utilization pre-post ACA (2014) were generated. We utilized the difference-in-differences approach to the estimate the effect of ACA expansion on MAT utilization among pregnant women. RESULTS: Among a total of 19,735 of substance use treatment episodes for pregnant women over the entire time period, 9,059 included MAT utilization. Pre (‘07-13) – post (‘14-15) ACA estimates of MAT utilization indicate a significant increase among pregnant women (48% vs. 53%, p

Willing to present orally: Yes

Financial Support: Supported by NIH NIDA grant: T32DA041898

Name of Sponsor (If you are NOT) a CPDD Member: Michael Stein

Email Address of Sponsor : mdstein@bu.edu

Prefix: Ms.

First Name: Sugy

Last Name: Choi

Degrees: MA MD Ph.D etc:: MS

Email: sugychoi@bu.edu

Company Affiliation: Boston University School of Public Health

Mailing Address: 715 Albany St

City: Boston

State: MA

Zip/Postal: 02118

Country: United States

Phone: 6176386500

ID: 642
Integrating care of hepatitis C virus infection and opioid use disorder: A systematic review of interventions in diverse clinical settings

Benjamin Oldfield, Yale University School of Medicine, benjamin.oldfield@yale.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM We sought to identify optimal strategies for integrating hepatitis C virus (HCV) infection and opioid use disorder (OUD) care in diverse settings. METHODS We searched Ovid MEDLINE, PubMed, Embase, PsycINFO and gray literature sources. We included studies published in English on or after 2002 (when buprenorphine/naloxone and peginterferon were approved by the US Food and Drug Administration) through May 2017. Studies evaluated interventions that integrated screening and/or treatment for HCV and OUD in clinical settings. Two authors independently abstracted information using a standardized instrument, then assessed bias of randomized trials using the Cochrane Risk of Bias Tool and quality of observational studies using Newcastle-Ottawa Scales. RESULTS Among 3,188 articles screened, nine met criteria for inclusion. Seven (78%) involved interventions in opioid treatment programs (OTPs), one (11%) in primary care settings, two (22%) in methadone-dispensing pharmacies, and one (11%) in needle-exchange programs. Three (33%) evaluated HCV screening, four (44%) evaluated HCV treatment (two utilized direct-acting antivirals [DAAs]), and two (22%) evaluated HCV-related care coordination interventions. Studies in OTPs (n=7) identified increased uptake of screening or decreased loss-to-follow-up with HCV treatment when compared to non-integrated strategies (n=4) or historical controls (n=1); those comparing among integration strategies (n=2) demonstrated that HCV treatment can be effectively implemented in needle-exchange programs and that directly-observed DAA treatment is not associated with improved outcomes compared to standard DAA treatment. Studies involving other settings (n=3) demonstrated that community HCV screening or dispensing of DAAs increased screening uptake and treatment engagement compared to non-integrated strategies. Randomized controlled studies (n=5) demonstrated moderate risk of bias and observational studies (n=4) demonstrated fair to good quality. CONCLUSIONS Efforts to screen for and treat HCV infection in OTPs should be expanded. Research is needed to understand the optimal strategies for integrating HCV and OUD care in other settings.

Willing to present orally: Yes

Financial Support: Dr. Oldfield was supported by the Peter M. Muehrer Award of the Yale National Clinician Scholars Program and the Office of Academic Affiliations of the Department of Veterans' Affairs.

Name of Sponsor (If you are NOT) a CPDD Member: E. Jennifer Edelman

Email Address of Sponsor : eva.edelman@yale.edu

Prefix: Dr.

First Name: Benjamin

Middle Initial: J

Last Name: Oldfield

Degrees: MA MD Ph.D etc:: MD MHS

Email: benjamin.oldfield@yale.edu

Company Affiliation: Yale University School of Medicine

Mailing Address: 374 Grand Avenue

City: New Haven

State: CT

Zip/Postal: 06513

Country: United States

Phone: 2037777411 x5539

ID: 643
A comparison between hypothetical and operant delay discounting procedures among adults enrolled in treatment for cannabis use disorder

Dustin Lee, Johns Hopkins University School of Medicine, dlee214@jhmi.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Treatment

Abstract: AIM: Excessive delay discounting is associated with problematic substance use and poorer treatment outcomes across a variety of substances, yet the relationship between delay discounting and cannabis remains equivocal. The aim of this analysis is to evaluate the relationship between hypothetical and operant delay discounting and treatment response among adults enrolled in treatment for cannabis use disorder (CUD). METHODS: 127 adults were enrolled in a 12-week clinical trial of CUD treatment and randomized to receive extended-release zolpidem or placebo. All received computerized therapy and abstinence-based contingency management verified by twice-weekly urine screens. Timeline follow-back assessed cannabis use at intake. Participants completed a hypothetical $1000 delay discounting procedure and the Quick Discounting Operant Task (QDOT) during intake and at End-of-Treatment (EOT) visits. Area under the curve (AUC) was calculated as an index of the rate of discounting for each procedure. Bivariate correlations and multivariate regression examined baseline characteristics and tested whether delay discounting predicted treatment response. RESULTS: Performance on the QDOT and hypothetical procedures were correlated (r=.24, p

Willing to present orally: Yes

Financial Support: U01-DA031784

Prefix: Dr.

First Name: Dustin

Middle Initial: C.

Last Name: Lee

Degrees: MA MD Ph.D etc:: Ph.D.

Email: dlee214@jhmi.edu

Company Affiliation: Johns Hopkins University School of Medicine

Mailing Address: 5510 Nathan Shock Drive

City: Baltimore

State: MD

Zip/Postal: 21224

Country: United States

Phone: 4105504035

Membership Year: 2008

Sponsor: Dr. Thomas Kelly and Dr. Vandrey, Dr. Alan Budney

Research Interests: Behavioral Pharmacology,Clinical Drug Development

ID: 644
How to quit heroin and injection drug use – a cross-sectional study across 14 countries

Larissa Maier, University of California San Francisco, larissa.maier@hotmail.ch

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Epidemiology

Abstract: Aim: Scaling up medication-assisted treatment for severe opioid use disorder is key to end the opioid crisis in the US and beyond. However, some people who use opioids can recover autonomously. Kratom is discussed as a safe alternative. Little is known about quitting opioid use among the non-treatment seeking population. Methods: Data from the Global Drug Survey (GDS) 2018, the largest anonymous web survey on drug use, were analyzed to identify people who quit heroin and/or injection drug use and profile kratom use. Fourteen countries (AT, AU, CA, CH, DE, DK, FI, HU, IT, NL, NZ, PL, UK, US; N = 106,695) had 2.6% (DK) to 21.5% (US) of the sample (n>100) who were experienced with heroin, and/or kratom and/or injection drug use. Results: One-quarter of the selected sample (n = 6,372) was female (24.6%), mean age was 29 years (SD = 11.5). Less than 5% had ever used fentanyl and less than 1% the novel opioids AH7921, carfentanil, T-HFF, U51754, or W18. Half of the sample had used heroin and/or injected drugs but not in the last 30 days (50.9%). In the last 30 days, about 1 in 10 had used heroin and/or injected a drug (11.9%); equally, 10.9% had used kratom. Most never tried heroin (80.4%) and only one fifth (14.4%) of those who had recently used kratom had quit heroin use. Recent heroin use was associated with self-reported depression and psychosis (p

Willing to present orally: Yes

Financial Support: No financial support was provided.

Prefix: Dr.

First Name: Larissa

Middle Initial: J

Last Name: Maier

Degrees: MA MD Ph.D etc:: Ph.D.

Email: larissa.maier@hotmail.ch

CC Email: larissa.maier@ucsf.edu

Company Affiliation: University of California San Francisco

Mailing Address: 1350 3rd Avenue

City: San Francisco

State: CA

Zip/Postal: 94122

Country: United States

Phone: +14156014034

Biography: https://www.researchgate.net/profile/Larissa_Maier

Membership Year: 2018

Sponsor: Dr. Danielle Ramo, PhD

Travel Award: 2018

Research Interests: Epidemiology,Treatment

ID: 645
The association of gender discrimination and cannabis use among adolescents and young adults

Manik Ahuja, Washington University in St. Louis, Manik.Ahuja@wustl.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Marijuana/Cannabinoids

Topic: Epidemiology

Abstract: AIMS Gender discrimination has been linked to negative outcomes including illicit drug use among adolescents and emerging adults. We focused on association of gender discrimination and a broad range of psychiatric risk factors (1) to test the association of discrimination with the age of initiation of cannabis (2) to the association of progression from first cannabis use to first report of cannabis use problem. METHODS Data (n=735) are from the Missouri Family study (MOFAM), a longitudinal high-risk family study designed to examine the effects of familial influences on adolescent offspring outcomes including alcohol, tobacco, and illicit drug involvement in a sample of females. Cox proportional hazards regression analyses were conducted to test the association of gender discrimination 1) initiation of cannabis 2) transition to age of first problem. RESULTS Significant interactions were found between race and gender discrimination with age of cannabis initiation, thus we stratified by race. In the Black cohort, perceived gender discrimination (HR=2.65; 95% CI:2.04-3.45), along with three or more conduct disorder symptoms CONCLUSIONS/IMPLICATIONS Perceived gender discrimination contributed significantly to the age of initiation of cannabis in both Black and White females, and was associated with first cannabis use disorder symptom in our combined model. Perceived discrimination is a detriment to the wellness of youth. Further research is needed to understand the relationship between gender discrimination and substance use.

Willing to present orally: Yes

Financial Support: SUPPORTED BY: The project was supported by grant number T32DA01035, from the National Institute on Drug Abuse (NIDA) and R01AA12640.

Prefix: Dr.

First Name: Manik

Last Name: Ahuja

Degrees: MA MD Ph.D etc:: Ph.D, M.A.

Email: Manik.Ahuja@wustl.edu

CC Email: Manik.Ahuja@wustl.edu

Company Affiliation: Washington University in St. Louis

Mailing Address: 4560 Clayton Ave, Suite 1000

Address 2: Apt 12C

City: St. Louis

State: MO

Zip/Postal: 68103

Country: United States

Phone: 2067775233

Membership Year: 2017

Sponsor: Dr. Kathleen Bucholz, PhD

Travel Award: NIDA Diretor's 2018

Research Interests: Epidemiology,Prevention

ID: 646
Gray-matter structure in long-term abstinent methamphetamine users

Lili Nie, West China Medical School of Sichuan University; UCLA, Lnie@mednet.ucla.edu

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Stimulants

Topic: Imaging

Abstract: BACKGROUND: Previous studies have identified gray-matter abnormalities in chronic methamphetamine users, but the findings have been inconsistent. AIM: Here we extended prior work by testing a relatively large sample of abstinent methamphetamine users in long-term abstinence from the drug. METHODS: T1-weighted structural MRI scans were obtained from 99 chronic methamphetamine users, abstinent from the drug from 12-621daysand 86 healthy controls. FreeSurfer software was used to measure subcortical gray-matter volumes and cortical volume and thickness. RESULTS: There were few group differences in total gray-matter and subcortical gray-matter volumes. Exceptions were a cluster in the right lateral occipitalcortex, which had smaller gray-matter volume, and regions mainly in the bilateral superior frontal gyrus, which showed greater thickness in methamphetamine users than in controls. Gray-matter volume of some brain regions was correlated with duration of abstinence from methamphetamine: total gray matter, right putamen, right hippocampus, a cluster in the right superior temporaland insular cortex and clusters in the bilateral insula. In contrast, gray-matter volume and cortical thickness of a cluster in the right lingual and right pericalcarine cortex were negatively correlated with duration of methamphetamine use. CONCLUSION: With long-term abstinence from chronic methamphetamine use, a difference relative to control in cortical thickness of the lateral occipital gyrus reflects either a pre-existing deficit in methamphetamine users or a lack of adaptation to an insult. Greater cortical thickness in the superior frontal gyrus in the methamphetamine users vs. controls and positive correlation of cortical thickness with duration of abstinence suggests compensatory mechanisms, especially in fronto-insular circuitry that is important for executive functions.

Willing to present orally: Yes

Financial Support: Supported by the Science and Technology Department of Sichuan Province (Grant 2017HH0059). Dr. London was supported by endowments from the Thomas P. and Katherine K. Pike Chair in Addiction Studies and the Marjorie M. Greene Trust.

Name of Sponsor (If you are NOT) a CPDD Member: Edythe D. London

Email Address of Sponsor : elondon@mednet.ucla.edu

Prefix: Ms.

First Name: Lili

Last Name: Nie

Degrees: MA MD Ph.D etc:: Ph.D Candidate

Email: Lnie@mednet.ucla.edu

CC Email: joana028@163.com

Company Affiliation: West China Medical School of Sichuan University; UCLA

Mailing Address: 740 Westwood Plaza

City: Los Angeles

State: CA

Zip/Postal: 90025

Country: United States

Phone: 3102540160

ID: 647
mHealth for opioid use disorder, HIV, and Hepatitis C treatment support in primary care: A pilot randomized controlled trial

Babak Tofighi, New York University School of Medicine, babak.tofighi@Nyumc.org

---

Abstract Category: Original Research

Abstract Detail: Human

Drug Category: Opiates/Opioids

Topic: Technology Issues

Abstract: AIM: Conduct a pilot randomized controlled trial in primary care among individuals with opioid use disorder, HIV, and Hepatitis C, assessing the feasibility and potential clinical impact of text messaging to improve retention in treatment and clinical outcomes METHODS: The study was conducted at Bellevue Hospital's Primary Care Clinic in New York City. mHealth design was based on the medical management model and an archive of over 450 messages. Feasibility testing elicited participant feedback on content and design features, and potential annoyance related to message frequency and timing. Clinical impact was assessed by observing: 1) rates of retention in primary care among individuals newly inducted on buprenorphine at 8 weeks; 2) linkage with HIV and/or HCV care; 3) self-reported adherence to antiretroviral therapy for HIV and/or HCV; 6) HIV, HCV viral load results at 8 weeks RESULTS: Adoption of the TM intervention was high (n=34/41, 83%) among a mostly underserved sample of OBOT program patients [non-Caucasian (65%), medicaid (82%), unemployed (34%), street homeless (45%)]. Clinical characteristics were representative of the general clinic population, including HIV+ (22%) and HCV+ (48%) status. Feasibility testing revealed delays in software programming, de-bugging, dashboard design, inability to deliver algorithmic or sequential messages during induction, inability to link with the hospital EMR or appointment scheduling software, and need for real-time feedback to patient queries by providers. At 8 weeks, most were highly satisfied with the intervention (93%) and reported no adverse events (privacy, cost, increased cravings). At 8 weeks, retention in OBOT was 82% compared to historical controls (68%); linkage to HIV care was 93% among mHealth recepients vs 87% in historical controls; and linkage to HCV care was 84% (intervention arm) vs 34% (historical controls). CONCLUSION: mHealth offers a feasibile and clinically beneficial approach to improving OUD, HIV, and HCV care in primary care.

Willing to present orally: No

Financial Support: This study was supported by the National Institute on Drug Abuse (K23 DA042140-01A1) and the NIH National Center for Advancing Translational Sciences (UL1 TR001445).

Prefix: Dr.

First Name: Babak

Last Name: Tofighi

Degrees: MA MD Ph.D etc:: MD, MSc

Email: babak.tofighi@Nyumc.org

CC Email: babak.tofighi@Nyumc.org

Company Affiliation: New York University School of Medicine

Mailing Address: 227 east 30th st

City: New York

State: NY

Zip/Postal: 10016

Country: United States

Phone: 6468017345

Date of Membership: was removed 7.30.16

ID: 648
Risky decision making and delay discounting in concurrent cannabis and stimulant users: A literature review

Kechna Cadet, CUNY School of Medicine, kechnacadet@gmail.com

Abstract Category: Literature Review

Abstract Detail: Human

Drug Category: Polydrug

Topic: Other

Other Topic: Polydrug use

Abstract: Aim: Cannabis is the most widely misused and trafficked illicit drug in the United States. As a standalone drug, cannabis can lead to cognitive impairment and other health related ailments, however, there is not enough research examining the interaction effects of cannabis with other recreational drugs such as cocaine and stimulants. This literature review aims to elucidate on the gaps that exist in our understanding of sex differences decision-making and delay discounting in those who engage in polysubstance use. Method: A PubMed and Google Scholar search was conducted using the following MESH terms: sex differences, decision making and delay discounting, concurrent drug use or polydrug use from 2008 to 2018. Results: From 372 Google Scholar and 28 PubMed results, three cross-sectional studies were identified that examined the relationship between polysubstance use and delay discounting. Moallem & Ray (2012) study revealed significant additive effect of using two substances concurrently (heavy drinking and smoking) on delay discounting task performance. A second study compared delay-discounting performance on the Delay Discounting Task (DDT) on four groups of smokers and SUD history participants, discounting of delayed rewards were seen more in those who were smokers and/or had SUD compared to their nonsmoking and non-SUD counterparts (Businelle et al., 2012). Lastly, delay discounting was evaluated across cocaine-dependent, nicotine-dependent only, cocaine- and nicotine-dependent, and non-dependent individuals (Garcia-Rodriguez et al., (2013). Delay discounting was greater in the cocaine- and nicotine-dependent group compared to the nicotine-only and control group, but not compared to the cocaine-dependent group (Garcia-Rodriguez et al., 2013). None of the studies examined sex-specific effects. Conclusion: The findings from this review will provide insights for further studies to better understand the sex differences and neurocognitive mechanisms impacted by concurrent substance use and may aid in improved treatment effectiveness and public health interventions at a policy level.

Willing to present orally: Yes

Financial Support: TRACC (Translational Research Training in Addictions for Racial/Ethnic Minorities) Fellowship

Prefix: Ms.

First Name: Kechna

Last Name: Cadet

Email: kechnacadet@gmail.com

Company Affiliation: CUNY School of Medicine

Mailing Address: 160 Convent Avenue

Address 2: NAC 7/235

City: New York

State: NY

Zip/Postal: 10031

Country: United States

Phone: 718-288-1507

Travel Award: Primm Single. 2018

ID: 649
Short-acting M5 negative allosteric modulator VU6008667 attenuates response to oxycodone in rats

Laura Teal, Vanderbilt University, teallaurab@gmail.com

Abstract Category: Original Research

Abstract Detail: Animal Study

Drug Category: Opiates/Opioids

Topic: Treatment

Abstract: AIM Given the limitations of current treatments for opioid use disorder (OUD), the need is clear for novel treatments which target established OUD or prevent misuse of opioids. The M5 muscarinic acetylcholine receptor subtype (M5) provides a novel target which exists upon dopaminergic mesocorticolimbic reward circuitry, localizing specifically within the midbrain ventral tegmental area (VTA) and substantia nigra, and therefore provides an alternative mechanism for modulating this circuit. METHODS Recently, we developed VU6008667, a negative allosteric modulator (NAM) with a short half-life suitable for repeated dosing paradigms. The effects of VU6008667 were tested both in chronic and acute dosing studies to examine the effects on acquisition and maintenance of oxycodone taking behavior in Sprague-Dawley rats. In addition, we have performed in situ hybridization experiments, both alone and in combination with retrograde tracing, allowing us to understand the specific neuronal populations where M5 is expressed within the mesolimbic and mesocortical circuitry. RESULTS VU6008667 is characterized as an M5-specific NAM with a half-life of ~2.3 hours in vivo and high CNS penetrance, making it suitable for understanding the impact of negatively regulating M5 receptors on behavior. Acutely, VU6008667 reduced responding for oxycodone in both fixed- and progressive- ratio paradigms in a dose-dependent manner. Ongoing studies are assessing ability of daily dosing of VU667 to block acquisition of oxycodone self-administration in drug-naive rats. Importantly, VU6008667 did not impact self-administration of sucrose pellets. Anatomically, we have shown a high co-localization of M5 mRNA with tyrosine hydroxylase mRNA within the VTA. In addition, recent research has shown there is a low percentage of co-localization with vGAT mRNA within the VTA, suggesting some expression on GABAergic interneurons. CONCLUSION Collectively, these data suggest that negative modulation of the M5 receptor may provide a novel mechanism for treatment of OUD or prevention of misuse of prescription opioids.

Willing to present orally: Yes

Financial Support: NIDA. Grant Number: R01DA37207 Development Funds for Dr. Carrie Jones

Name of Sponsor (If you are NOT) a CPDD Member: Michael Nader

Email Address of Sponsor : mnader@wakehealth.edu

Prefix: Ms.

First Name: Laura

Middle Initial: B

Last Name: Teal

Email: teallaurab@gmail.com

CC Email: laura.b.teal@vanderbilt.edu

Company Affiliation: Vanderbilt University

Mailing Address: 2000 Grand Avenue

Address 2: Apt 909

City: Nashville

State: TN

Zip/Postal: 37212

Country: United States

Phone: 6166100484