DESPR Research Highlights

Cost-effectiveness Of Extended Release Naltrexone To Prevent Relapse Among Criminal Justice-involved Individuals With A History Of Opioid Use Disorder.

Murphy, Sean M; Polsky, Daniel; Lee, Joshua D; Friedmann, Peter D; Kinlock, Timothy W; Nunes, Edward V; Bonnie, Richard J; Gordon, Michael; Chen, Donna T; Boney, Tamara Y; O'Brien, Charles P. Addiction. 2017; 26 (2).

Criminal justice-involved individuals are highly susceptible to opioid relapse and overdose-related deaths. In a recent randomized trial, we demonstrated the effectiveness of extended-release naltrexone (XR-NTX; Vivitrol(®)) in preventing opioid relapse among criminal justice-involved US adults with a history of opioid use disorder. The cost of XR-NTX may be a significant barrier to adoption. Thus, it is important to account for improved quality of life and downstream cost-offsets. Our aims were to (1) estimate the incremental cost per quality-adjusted life-year (QALY) gained for XR-NTX versus treatment as usual (TAU) and evaluate it relative to generally accepted value thresholds; and (2) estimate the incremental cost per additional year of opioid abstinence. Economic evaluation of the aforementioned trial from the taxpayer perspective. Participants were randomized to 25 weeks of XR-NTX injections or TAU; follow-up occurred at 52 and 78 weeks. Five study sites in the US Northeast corridor. A total of 308 participants were randomized to XR-NTX (n = 153) or TAU (n = 155). Incremental costs relative to incremental economic and clinical effectiveness measures, QALYs and abstinent years, respectively. The 25-week cost per QALY and abstinent-year figures were $162 150 and $46 329, respectively. The 78-week figures were $76 400/QALY and $16 371/abstinent year. At 25 weeks, we can be 10% certain that XR-NTX is cost-effective at a value threshold of $100 000/QALY and 62% certain at $200 000/QALY. At 78 weeks, the cost-effectiveness probabilities are 59% at $100 000/QALY and 76% at $200 000/QALY. We can be 95% confident that the intervention would be considered a good value at $90 000/abstinent year at 25 weeks and $500/abstinent year at 78 weeks. While extended-release naltrexone appears to be effective in increasing both quality-adjusted life-years (QALYs) and abstinence, it does not appear to be cost-effective using generally accepted value thresholds for QALYs, due to the high price of the injection.

"It Takes Longer, But When It Hits You It Hits You!": Videos About Marijuana Edibles On YouTube.

Krauss, Melissa J; Sowles, Shaina J; Stelzer-Monahan, Haley E; Bierut, Tatiana; Cavazos-Rehg, Patricia A. Subst Use Misuse. 2017; 52(6): 709-716.

Interest in marijuana edibles has increased as perceptions of harm from marijuana have decreased. Media and peer influences impact youth substance use, and YouTube is the most popular video-sharing website. No studies have examined the content and accessibility of YouTube videos related to marijuana edibles. To describe the messages conveyed to viewers in YouTube videos about edibles and determine their accessibility to youth. On June 12, 2015, we searched YouTube for videos about

marijuana/cannabis/weed edibles. A total of 51 videos were coded for presence of an age restriction, purpose(s) of the videos, consumption of edibles during the video, effects, and safety concerns. Total views across all 51 videos were >9 million. Only 14% (7/51) were restricted to viewers over the age of 18 years. Over half (27/51, 53%) were informative videos, most (20/27, 74%) teaching how to make edibles, and 37% (19/51) were entertaining videos. Someone consumed an edible in 31% (16/51) of the videos, and the type of high was mentioned in 51% (26/51) of the videos, including delayed (18/26, 69%) or intense high (13/26, 50%). Fifty-five percent (28/51) mentioned delta-9-tetrahydrocannabinol potency or dosage. Only 10 of these (36%) presented this information specifically as a warning to prevent adverse effects.

Conclusions/Importance: Edibles-related videos are easily found on YouTube, often instructing how to bake your own edibles and lacking information needed for safe consumption, and most are not age-restricted. Videos showing how to make edibles or presenting edibles use in an entertaining way that could influence youth to initiate use.

Medical Marijuana Policies And Hospitalizations Related To Marijuana And Opioid Pain Reliever.

Shi, Yuyan. Drug Alcohol Depend. 2017 April 1; 173: 144-150.

Twenty-eight states in the U.S have legalized medical marijuana, yet its impacts on severe health consequences such as hospitalizations remain unknown. Meanwhile, the prevalence of opioid pain reliever (OPR) use and outcomes has increased dramatically. Recent studies suggested unintended impacts of legalizing medical marijuana on OPR, but the evidence is still limited. This study examined the associations between state medical marijuana policies and hospitalizations related to marijuana and OPR. State-level annual administrative records of hospital discharges during 1997-2014 were obtained from the State Inpatient Databases (SID). The outcome variables were rates of hospitalizations involving marijuana dependence or abuse, opioid dependence or abuse, and OPR overdose in 1000 discharges. Linear time-series regressions were used to assess the associations of implementing medical marijuana policies to hospitalizations, controlling for other marijuana- and OPR-related policies, socioeconomic factors, and state and year fixed effects. Hospitalizations related to marijuana and OPR increased sharply by 300% on average in all states. Medical marijuana legalization was associated with 23% (p=0.008) and 13% (p=0.025) reductions in hospitalizations related to opioid dependence or abuse and OPR overdose, respectively; lagged effects were observed after policy implementation. The operation of medical marijuana dispensaries had no independent impacts on OPR-related hospitalizations. Medical marijuana polices had no associations with marijuana-related hospitalizations. Medical marijuana policies were significantly associated with reduced OPR-related hospitalizations but had no associations with marijuana-related hospitalizations. Given the epidemic of problematic use of OPR, future investigation is needed to explore the causal pathways of these findings.

Peer Network Counseling As Brief Treatment For Urban Adolescent Heavy Cannabis Users.

Mason, Michael J; Sabo, Roy; Zaharakis, Nikola M. J Stud Alcohol Drugs. 2017; 78(1): 152-157.

A small body of evidence supports targeting adolescents who are heavy users of cannabis with brief interventions, yet more research is needed to confirm the effectiveness of these studies. We conducted a secondary analysis of our Peer Network Counseling (PNC) study (Mason et al., 2015), focusing on 46 adolescents of the sample of 119 who reported heavy cannabis use at baseline. Urban adolescents (91% African American) presenting for primary health care were randomized to intervention or control conditions and followed for 6 months. We selected cases (n = 46) to analyze based on heavy cannabis use reported at baseline (≥10 times in past month). The ordinal response data (cannabis use) were modeled using a mixed-effects proportional odds model, including fixed effects for treatment, time, and their interaction, and a subject-level random effect. In the subsample of adolescents with heavy cannabis use, those assigned to PNC had a 35.9% probability of being abstinent at 6 months, compared with a 13.2% probability in the control condition. Adolescents in the PNC condition had a 16.6% probability of using cannabis 10 or more times per month, compared with a 38.1% probability in the control condition. This differs from results of the full sample (N = 119), where no significant effects on cannabis use were found. PNC increased the probability of abstinence and reduced heavy cannabis use. These results provide initial support for PNC as a model for brief treatment with non-treatment seeking adolescents who are heavy users of cannabis

Parent And Peer Pathways Linking Childhood Experiences Of Abuse With Marijuana Use In Adolescence And Adulthood.

Alex Mason, W; Jean Russo, M; Chmelka, Mary B; Herrenkohl, Roy C; Herrenkohl, Todd I. Addict Behav. 2017 Mar; 66: 70-75.

The social developmental processes by which child maltreatment increases risk for marijuana use are understudied. This study examined hypothesized parent and peer pathways linking preschool abuse and sexual abuse with adolescent and adult marijuana use. Analyses used data from the Lehigh Longitudinal Study. Measures included child abuse (physical abuse, emotional abuse, domestic violence, and neglect) in preschool, sexual abuse up to age 18, adolescent (average age=18years) parental attachment and peer marijuana approval/use, as well as adolescent and adult (average age=36years) marijuana use. Confirming elevated risk due to child maltreatment, path analysis showed that sexual abuse was positively related to adolescent marijuana use, whereas preschool abuse was positively related to adult marijuana use. In support of mediation, it was found that both forms of maltreatment were negatively related to parental attachment, which was negatively related, in turn, to having peers who use and approve of marijuana use. Peer marijuana approval/use was a strong positive predictor of adolescent marijuana use, which was a strong positive predictor, in turn, of adult marijuana use. Results support social developmental theories that hypothesize a sequence of events leading from child maltreatment experiences to lower levels of parental attachment and, in turn, higher levels of involvement with pro-marijuana peers and, ultimately, to both adolescent and adult marijuana use. This sequence of events suggests developmentally-timed intervention activities designed to prevent maltreatment as well as the initiation and progression of marijuana use among vulnerable individuals.

[Prenatal Tobacco Exposure, Birthweight, And Offspring Psychopathology.](#)
Talati, Ardesheer; Wickramaratne, Priya J; Wesselhoeft, Rikke; Weissman, Myrna M.
Psychiatry Res. 2017; 252(): 346-352.
Although prenatal tobacco exposure (PTE) is associated with several adverse offspring mental health outcomes, mechanisms remain unclear. We test whether associations between PTE and offspring psychopathology are explained by birthweight, one of the earliest-occurring outcomes of PTE. The analysis focuses on 238 offspring from a family study of depression with (1) collected prenatal histories and (2) at least one clinical interview in adulthood to assess psychiatric problems. Exposure was categorized by maternal smoking of ≥10 cigarettes daily/nearly daily; diagnostic outcomes were confirmed by clinicians using the best-estimate procedure, blind to exposure. After adjusting for potential confounders, PTE was associated with 0.7lb(9%) lower birthweight (p=0.0002), increased rates of disruptive behavior disorders [males: OR=2.66(1.15,6.16), and (trend) substance use disorders [females: OR=2.23(0.98,5.09)], and decreased rates of mood disorders (males: OR=0.42(0.17,0.98)]. Birthweight was not independently associated with diagnoses and did not mediate the association between exposure and psychopathology. Maternal smoking has long-term adverse consequences for offspring. Although birthweight cannot be manipulated, smoking is a modifiable risk factor. Thus, cessation efforts focused on pregnant women may not only improve maternal wellbeing, but also mitigate adverse proximal (e.g., birthweight) and long-term (psychopathology) outcomes in offspring.

[The 3-Year Course Of Multiple Substance Use Disorders In The United States: A National Longitudinal Study.](#)
McCabe, Sean Esteban; West, Brady T. J Clin Psychiatry. 2017; 78(5): e537-e544.
To examine the 3-year course of multiple co-occurring substance use disorders (SUDs) based on longitudinal survey data from a large, nationally representative sample. National estimates of the prevalence of DSM-IV SUDs were derived by analyzing data from structured, face-to-face diagnostic interviews as part of the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC), which collected data from a large, nationally representative sample of noninstitutionalized US adults at 2 waves (2001-2002 and 2004-2005; N = 34,653).US adults with multiple past-year SUDs at Wave 1 were substantially more likely than those with an individual past-year SUD or no SUD at Wave 1 to report at least 1 past-year SUD at Wave 2 (66.3% vs 46.0% vs 6.9%, respectively). There were several sociodemographic characteristics and psychiatric disorders (ie, male, younger age, never married, sexual minority identity, nicotine dependence, mood disorder, and personality disorder) associated with increased odds of developing multiple SUDs and having 3-year persistence of multiple SUDs. The majority of adults with multiple past-year SUDs had a lifetime personality disorder and did not utilize substance abuse treatment or other help-seeking. Multiple SUDs are associated with a more persistent 3-year course of disease over time relative to individual SUDs. Despite a more severe 3-year course and higher rates of comorbidity with other psychiatric disorders, the majority of US adults with multiple SUDs do not utilize substance abuse treatment or other help-seeking. Clinical assessments and the

substance abuse literature tend to focus on drug-specific individual SUDs rather than considering the more complex multiple SUDs, which can be more challenging to treat.

[Eveningness And Later Sleep Timing Are Associated With Greater Risk For Alcohol And Marijuana Use In Adolescence: Initial Findings From The NCANDA Study.](#)

Hasler, Brant P; Franzen, Peter L; de Zambotti, Massimiliano; Prouty, Devin; Brown, Sandra A; Tapert, Susan F; Pfefferbaum, Adolf; Pohl, Kilian M; Sullivan, Edith V; De Bellis, Michael D; Nagel, Bonnie J; Baker, Fiona C; Colrain, Ian M; Clark, Duncan B. Alcohol Clin Exp Res. 2017; (6): .

Abundant cross-sectional evidence links eveningness (a preference for later sleep-wake timing) and increased alcohol and drug use among adolescents and young adults. However, longitudinal studies are needed to examine whether eveningness is a risk factor for subsequent alcohol and drug use, particularly during adolescence, which is marked by parallel peaks in eveningness and risk for the onset of alcohol use disorders. The present study examined whether eveningness and other sleep characteristics were associated with concurrent or subsequent substance involvement in a longitudinal study of adolescents. Participants were 729 adolescents (368 females; age 12-21 years) in the National Consortium on Adolescent Neurodevelopment and Alcohol [NCANDA] study. Associations between the sleep variables (circadian preference, sleep quality, daytime sleepiness, sleep timing, and sleep duration) and three categorical substance variables (at-risk alcohol use, alcohol bingeing, and past year marijuana use (y/n)) were examined using ordinal and logistic regression with baseline age, sex, race, ethnicity, socioeconomic status, and psychiatric problems as covariates. At baseline, greater eveningness was associated with greater at-risk alcohol use, greater bingeing, and past-year use of marijuana. Later weekday and weekend bedtimes, but not weekday or weekend sleep duration, showed similar associations across the three substance outcomes at baseline. Greater baseline eveningness was also prospectively associated with greater bingeing and past-year use of marijuana at the 1-year follow-up, after covarying for baseline bingeing and marijuana use. Later baseline weekday and weekend bedtimes, and shorter baseline weekday sleep duration, were similarly associated with greater bingeing and past-year use of marijuana at the 1-year follow-up after covarying for baseline values.

[Neural Correlates Of Graphic Cigarette Warning Labels Predict Smoking Cessation Relapse.](#)

Owens, Max M; MacKillop, James; Gray, Joshua C; Hawkshead, Brittany E; Murphy, Cara M; Sweet, Lawrence H. Psychiatry Res. 2017 April 30; 262: 63-70.

Exposure to graphic warning labels (GWLs) on cigarette packaging has been found to produce heightened activity in brain regions central to emotional processing and higher-order cognitive processes. The current study extends this literature by using functional magnetic resonance imaging (fMRI) to investigate neural activation in response to GWLs and use it to predict relapse in an evidence-based smoking cessation treatment program. Participants were 48 treatment-seeking nicotine-dependent smokers who completed an fMRI paradigm in which they were exposed to GWLs, text-only warning labels (TOLs), and matched control stimuli. Subsequently, they enrolled in smoking

cessation treatment and their smoking behavior was monitored. Activation in bilateral amygdala, right dorsolateral prefrontal cortex, right inferior frontal gyrus, left medial temporal gyrus, bilateral occipital lobe, and bilateral fusiform gyrus was greater during GWLs than TOLs. Neural response in the ventromedial prefrontal cortex (vmPFC) during exposure to GWLs (relative to a visual control image) predicted relapse during treatment beyond baseline demographic and dependence severity, but response in the amygdala to GWLs did not. These findings suggest that neurocognitive processes in the vmPFC may be critical to understanding how GWL's induce behavior change and may be useful as a predictor of smoking cessation treatment prognosis.

Shared Microstructural Features Of Behavioral And Substance Addictions Revealed In Areas Of Crossing Fibers.

Yip, Sarah W; Morie, Kristen P; Xu, Jiansong; Constable, R Todd; Malison, Robert T; Carroll, Kathleen M; Potenza, Marc N. Biol Psychiatry Cogn Neurosci Neuroimaging. 2017; 2(2): 188-195.

Similarities between behavioral and substance addictions exist. However, direct neurobiological comparison between addictive disorders is rare. Determination of disorder-specificity (or lack thereof) of alterations within white-matter microstructures will advance understanding of the pathophysiology of addictions. We compared white-matter microstructural features between individuals with gambling disorder (GD; n=38), cocaine-use disorder (CUD; n=38) and healthy comparison (HC; n=38) participants, as assessed using diffusion-weighted magnetic resonance imaging (dMRI). To provide a more precise estimate of diffusion within regions of complex architecture (e.g., cortico-limbic tracts), analyses were conducted using a crossing-fiber model incorporating local-orientation modeling (tbss_x). Anisotropy estimates for primary and secondary fiber orientations were compared using ANOVAs corrected for multiple comparisons across space using threshold-free cluster enhancement (pFWE<.05).A main effect of group on anisotropy of secondary fiber orientations within the left internal capsule, corona radiata, forceps major and posterior thalamic radiation, involving reduced anisotropy among GD and CUD participants in comparison to HC participants. No differences in anisotropy measures were found between GD and CUD individuals. This is the first study to compare diffusion indices directly between behavioral and substance addictions and the largest dMRI study of GD. Our findings indicate similar white-matter microstructural alterations across addictions that cannot be attributed solely to exposure to drugs or alcohol and thus may be a vulnerability mechanism for addictive disorders.

Gray-matter Relationships To Diagnostic And Transdiagnostic Features Of Drug And Behavioral Addictions.

Yip, Sarah W; Worhunsky, Patrick D; Xu, Jiansong; Morie, Kristen P; Constable, R Todd; Malison, Robert T; Carroll, Kathleen M; Potenza, Marc N. Addict Biol. 2017; Feb. 1.

Alterations in neural structure have been reported in both cocaine-use disorder and gambling disorder, separately, suggesting similarities across addiction diagnoses. Individual variation in neural structure has also been associated with impulsivity, a dimensional construct implicated in addictions. This study combines categorical (diagnosis-based) and dimensional (transdiagnostic) approaches to identify neural

structural alterations linked to addiction subtypes and trait impulsivity, respectively, across individuals with gambling disorder (n = 35), individuals with cocaine-use disorder (n = 37) and healthy comparison individuals (n = 37). High-resolution T1-weighted data were analyzed using modulated voxel-based morphometry (VBM). Statistical analyses were conducted using whole-brain general-linear models, corrected for family-wise error (pFWE < .05). Categorical analyses indicated a main effect of diagnostic group on prefrontal (dorsal anterior cingulate and ventromedial prefrontal cortex) gray matter volumes (GMVs), involving decreased GMVs among cocaine-use disorder participants only. Dimensional analyses indicated a negative association between trait impulsivity and cortical (insula) and subcortical (amygdala and hippocampus) GMVs across all participants. Conjunction analysis indicated little anatomical overlap between regions identified as differentiating diagnostic groups and regions covarying with impulsivity. These data provide first evidence of neural structural differences between gambling disorder and an illicit substance-use disorder. They further indicate dissociable effects of diagnostic groupings and trait impulsivity on neural structure among individuals with behavioral and drug addictions. Study findings highlight the importance of considering both categorical and dimensional (e.g. Research Domain Criteria; RDoC) analysis approaches within the context of addictions research.

[Higher Prescription Opioid Dose Is Associated With Worse Patient-Reported Pain Outcomes And More Health Care Utilization.](#)
Morasco, Benjamin J; Yarborough, Bobbi Jo; Smith, Ning X; Dobscha, Steven K; Deyo, Richard A; Perrin, Nancy A; Green, Carla A. J Pain. 2017; 18(4): 437-445.
Some previous research has examined pain-related variables on the basis of prescription opioid dose, but data from studies involving patient-reported outcomes have been limited. This study examined the relationships between prescription opioid dose and self-reported pain intensity, function, quality of life, and mental health. Participants were recruited from 2 large integrated health systems, Kaiser Permanente Northwest (n = 331) and VA Portland Health Care System (n = 186). To be included, participants had to have musculoskeletal pain diagnoses and be receiving stable doses of long-term opioid therapy. We divided participants into 3 groups on the basis of current prescription opioid dose in daily morphine equivalent dose (MED): low dose (5-20 mg MED), moderate dose (20.1-50 mg MED), and higher dose (50.1-120 mg MED) groups. A statistically significant trend emerged where higher prescription opioid dose was associated with moderately sized effects including greater pain intensity, more impairments in functioning and quality of life, poorer self-efficacy for managing pain, greater fear avoidance, and more health care utilization. Rates of potential alcohol and substance use disorders also differed among groups. Findings from this evaluation reveal significant differences in pain-related and substance-related factors on the basis of prescription opioid dose. This study included 517 patients who were prescribed long-term opioid therapy and compared differences on pain- and mental health-related variables on the basis of prescription opioid dose. Findings reveal small- to medium-sized differences on pain-related variables, alcohol and substance use, and health care utilization on the basis of the dose of opioid prescribed.

[Adolescents' Prescription Stimulant Use And Adult Functional Outcomes: A National Prospective Study.](#)

McCabe, Sean Esteban; Veliz, Philip; Wilens, Timothy E; Schulenberg, John E. J Am Acad Child Adolesc Psychiatry. 2017; 56(3): 226-233.e4.

To assess the prospective 17-year relationship between the medical and nonmedical use of prescription stimulants during adolescence (age 18 years) and educational attainment and substance use disorder (SUD) symptoms in adulthood (age 35 years).A survey was self-administered by nationally representative probability samples of US high school seniors from the Monitoring the Future study; 8,362 of these individuals were followed longitudinally from adolescence (age 18, high school senior years 1976-1996) to adulthood (age 35, 1993-2013).An estimated 8.1% reported medical use of prescription stimulants, and 16.7% reported nonmedical use of prescription stimulants by age 18 years. Approximately 43% of adolescent medical users of prescription stimulants had also engaged in nonmedical use of prescription stimulants during adolescence. Among past-year adolescent nonmedical users of prescription stimulants, 97.3% had used at least one other substance during the past year. Medical users of prescription stimulants without any history of nonmedical use during adolescence did not differ significantly from population controls (i.e., non-attention-deficit/hyperactivity disorder [ADHD] and non-stimulant-medicated ADHD during adolescence) in educational attainment and SUD symptoms in adulthood. In contrast, adolescent nonmedical users of prescription stimulants (with or without medical use) had lower educational attainment and more SUD symptoms in adulthood, compared to population controls and medical users of prescription stimulants without nonmedical use during adolescence. Nonmedical use of prescription stimulants is common among adolescents prescribed these medications. The findings indicate youth should be carefully monitored for nonmedical use because this behavior is associated with lower educational attainment and more SUD symptoms in adulthood.

[Long-term Retention In Office Based Opioid Treatment With Buprenorphine.](#)

Weinstein, Zoe M; Kim, Hyunjoong W; Cheng, Debbie M; Quinn, Emily; Hui, David; Labelle, Colleen T; Drainoni, Mari-Lynn; Bachman, Sara S; Samet, Jeffrey H. J Subst Abuse Treat. 2017 Mar.; 74: 65-70.

Guidelines recommend long-term treatment for opioid use disorder with buprenorphine; however, little is known about patients in long-term treatment. The aim of this study is to examine the prevalence and patient characteristics of long-term treatment retention (≥1year) in an Office Based Opioid Treatment (OBOT) program with buprenorphine. This is a retrospective cohort study of adults on buprenorphine from January 2002 to February 2014 in a large urban safety-net primary care OBOT program. The primary outcome was retention in OBOT for at least one continuous year. Potential predictors included age, race, psychiatric diagnoses, hepatitis C, employment, prior buprenorphine, ever heroin use, current cocaine, benzodiazepine and alcohol use on enrollment. Factors associated with ≥1year OBOT retention were identified using generalized estimating equation logistic regression models. Patients who re-enrolled in the program contributed repeated observations. There were 1605 OBOT treatment periods among 1237 patients in this study. Almost half, 45% (717/1605), of all treatment periods were ≥1year and a majority, 53.7% (664/1237), of patients had at least one

≥1year period. In adjusted analyses, female gender (Adjusted Odds Ratio [AOR] 1.55, 95% CI [1.20, 2.00]) psychiatric diagnosis (AOR 1.75 [1.35, 2.27]) and age (AOR 1.19 per 10year increase [1.05, 1.34]) were associated with greater odds of ≥1year retention. Unemployment (AOR 0.72 [0.56, 0.92]), Hepatitis C (AOR 0.59 [0.45, 0.76]), black race/ethnicity (AOR 0.53 [0.36, 0.78]) and Hispanic race/ethnicity (AOR 0.66 [0.48, 0.92]) were associated with lower odds of ≥1year retention. Over half of patients who presented to Office Based Opioid Treatment with buprenorphine were ultimately successfully retained for ≥1year. However, significant disparities in one-year treatment retention were observed, including poorer retention for patients who were younger, black, Hispanic, unemployed, or with hepatitis C.

[Parent-Centered Prevention Of Risky Behaviors Among Hispanic Youths In Florida.](#)

Estrada, Yannine; Lee, Tae Kyoung; Huang, Shi; Tapia, Maria I; Velázquez, Maria-Rosa; Martinez, Marcos J; Pantin, Hilda; Ocasio, Manuel A; Vidot, Denise C; Molleda, Lourdes; Villamar, Juan; Stepanenko, Bryan A; Brown, C Hendricks; Prado, Guillermo. Am J Public Health. 2017; 107(4): 607-613.

To evaluate the effectiveness of an evidence-based, parent-centered intervention, Familias Unidas, delivered by nonresearch personnel, in preventing substance use (alcohol, illicit drugs) and sex without a condom among Hispanic adolescents.A randomized controlled trial (n = 746) evaluated the effectiveness of Familias Unidas among Hispanic eighth graders (age range = 12-16 years), relative to prevention as usual, within a public school system. School personnel, including social workers and mental health counselors, were trained to deliver the evidence-based intervention. Participant recruitment, intervention delivery, and follow-up ran from September 2010 through June 2014 in Miami-Dade County, Florida. Familias Unidas was effective in preventing drug use from increasing and prevented greater increases in sex without a condom 30 months after baseline, relative to prevention as usual. Familias Unidas also had a positive impact on family functioning and parental monitoring of peers at 6 months after baseline. This study demonstrated the effectiveness of a parent-centered preventive intervention program in preventing risky behaviors among Hispanic youths. Findings highlight the feasibility of training nonresearch personnel on effectively delivering a manualized intervention in a real-world setting.

[Male Sex Associated With Increased Risk Of Neonatal Abstinence Syndrome.](#)

Charles, M Katherine; Cooper, William O; Jansson, Lauren M; Dudley, Judith; Slaughter, James C; Patrick, Stephen W. Hosp Pediatr. 2017; (6).

Neonatal abstinence syndrome (NAS) is a postnatal opioid withdrawal syndrome. Factors associated with development of the syndrome are poorly understood; however, infant sex may influence the risk of NAS. Our objective was to determine if infant sex was associated with the development or severity of the syndrome in a large population-based cohort. This retrospective cohort study used vital statistics and prescription, outpatient, and inpatient administrative data for mothers and infants enrolled in the Tennessee Medicaid program between 2009 and 2011. Multivariable logistic regression models were used to evaluate the association between male sex and diagnosis of NAS, accounting for potential demographic and clinical confounders. NAS severity, as

evidenced by hospital length of stay, was modeled by using negative binomial regression. Of 102 695 infants, 927 infants were diagnosed with NAS (484 male subjects and 443 female subjects). Adjustments were made for the following: maternal age, race, and education; maternal hepatitis C infection, anxiety, or depression; in utero exposure to selective serotonin reuptake inhibitors and cigarettes; infant birth weight, small for gestational age, and year; and the interaction between opioid type and opioid amount. Male infants were more likely than female infants to be diagnosed with NAS (adjusted odds ratio, 1.18 [95% confidence interval, 1.05-1.33]) and NAS requiring treatment (adjusted odds ratio, 1.24 [95% confidence interval, 1.04-1.47]). However, there was no sex-based difference in severity for those diagnosed with NAS.

[Overdose Education And Naloxone Distribution Program Attendees: Who Attends, What Do They Know, And How Do They Feel?](#)
Heavey, Sarah Cercone; Burstein, Gale; Moore, Cheryll; Homish, Gregory G. J Public Health Manag Pract. 2017 Mar. 1.
The United States is in the midst of an opioid overdose epidemic. Opioids killed more than 28 000 people in 2014, more than any year on record. One approach to addressing this growing epidemic is Opioid Overdose Education and Naloxone Distribution (OEND) training. Little is known about these programs' participants and their effectiveness across different demographic groups. To examine (1) whether knowledge and attitudes improved over the course of the training programs; (2) whether training outcomes differ by demographics; and (3) what overdose experiences do attendees have, and whether those experiences influence their knowledge and attitudes. A pre- and posttest survey was used to collect data on participants' demographics, overdose experiences, and opioid overdose knowledge and attitudes. Surveys that took place at community-wide OEND programs were offered throughout Erie County, New York, during October and November 2015.Community members who elected to attend the training programs, were at least 18 years of age, spoke English, and were willing and able to participate were included in the sample (N = 198).N/A. The Opioid Overdose Knowledge and Attitudes Scale. Knowledge and attitude scores significantly improved from pre- to posttest assessments, increasing by 23.1% and 15.4%, respectively (Ps < .001). There were significant demographic differences in knowledge and attitudes at the pretest assessment, but these differences were ameliorated by the OEND program and did not persist at posttest assessment. In addition, 62.9% of participants had never experienced, witnessed, or known someone who had overdosed. Results indicate that OEND programs are effective at improving knowledge and attitudes toward opioid overdose. These results indicate that OEND programs are not reaching the highest risk individuals but are instead attracting concerned family and significant others. Future programs should focus on reaching current opioid users, overdose victims, and their families to ensure OEND programs are reaching the target audiences.

[The Association Between Personality Disorders With Alcohol Use And Misuse: A Population-based Twin Study.](#)
Long, E C; Aggen, S H; Neale, M C; Knudsen, G P; Krueger, R F; South, S C; Czajkowski, N; Nesvåg, R; Ystrom, E; Torvik, F A; Kendler, K S; Gillespie, N A; Reichborn-Kjennerud, T. Drug Alcohol Depend. 2017 May 1; 174: 171-180.

A clearer understanding of the etiological overlap between DSM-IV personality disorders (PDs) and alcohol use (AU) and alcohol use disorder (AUD) is needed. To our knowledge, no study has modeled the association between all 10 DSM-IV PDs and lifetime AU and AUD. The aim of the present study is to identify which PDs are most strongly associated with the phenotypic, genetic, and environmental risks of lifetime AU and AUD, and to determine if these associations are stable across time. Participants were Norwegian twins assessed at two waves. At Wave 1, 2801 twins were assessed for all 10 DSM-IV PD criteria, lifetime AU, and DSM-IV AUD criteria. At Wave 2, six of the 10 PDs were again assessed along with AU and AUD among 2393 twins. Univariate and multiple logistic regressions were run. Significant predictors were further analyzed using bivariate twin Cholesky decompositions. Borderline and antisocial PD criteria were the strongest predictors of AU and AUD across the two waves. Despite moderate phenotypic and genetic correlations, genetic variation in these PD criteria explained only 4% and 3% of the risks in AU, and 5% to 10% of the risks in AUD criteria, respectively. At Wave 2, these estimates increased to 8% and 23% for AU, and 17% and 33% for AUD. Among a large Norwegian twin sample, borderline and antisocial PD criteria were the strongest predictors of the phenotypic and genotypic liability to AU and AUD. This effect remained consistent across time.

HIV Incidence Among People Who Inject Drugs (Pwids) In Ukraine: Results From A Clustered Randomised Trial.

Robert E Booth; Jonathan M Davis; Sergey Dvoryak; John T Brewster; Oksana Lisovska; Steffanie A Strathdee; Carl A Latkin The Lancet HIV. 2016 3(10) 482-489

HIV prevalence among people who inject drugs (PWID) in Ukraine is among the highest in the world. In this study, we aimed to assess whether a social network intervention was superior to HIV testing and counselling in affecting HIV incidence among PWID. Although this was not the primary aim of the study, it is associated with reducing drug and sex risk behaviors, which were primary aims. In this clustered randomized trial, PWID who were 16 years of age or older, had used self-reported drug injection in the past 30 days, were willing to be interviewed for about 1 hour and tested for HIV, were not too impaired to comprehend and provide informed consent, and, for this paper, who tested HIV negative at baseline were recruited from the streets by project outreach workers in three cities in southern and eastern Ukraine: Odessa, Donetsk, and Nikolayev. Index or peer leaders, along with two of their network members, were randomly assigned (1:1) by the study statistician to the testing and counselling block (control group) or the testing and counselling plus a social network intervention block (intervention group). No stratification or minimisation was done. Participants in the network intervention received five sessions to train their network members in risk reduction. Those participants assigned to the control group received no further intervention after counselling. The main outcome of this study was HIV seroconversion in the intent-to-treat population as estimated with Cox regression and incorporating a γ frailty term to account for clustering. Between July 12, 2010, and Nov 23, 2012, 2304 PWIDs were recruited, 1200 of whom were HIV negative and are included in the present study. 589 index or peer leaders were randomly assigned to the control group and 611 were assigned to the intervention group. Of the 1200 HIV-negative participants, 1085 (90%) were retained at 12 months. In 553·0 person-years in the intervention

group, 102 participants had seroconversion (incidence density 18·45 per 100 person-years; 95% CI 14·87–22·03); in 497·1 person-years in the control group 158 participants seroconverted (31·78 per 100 person-years; 26·83–36·74). This corresponded to a reduced hazard in the intervention group (hazard ratio 0·53, 95% CI 0·38–0·76, p=0·0003). No study-related adverse events were reported. These data provide strong support for integrating peer education into comprehensive HIV prevention programs for PWID and suggest the value in developing and testing peer-led interventions to improve access and adherence to pre-exposure prophylaxis and antiretroviral therapy.

What Happened To The HIV Epidemic Among Non-injecting Drug Users In New York City?

Des Jarlais, Don C; Arasteh, Kamyar; McKnight, Courtney; Feelemyer, Jonathan; Campbell, Aimee N C; Tross, Susan; Cooper, Hannah L F; Hagan, Holly; Perlman, David C. Addiction. 2017; 112(2): 290-298.

HIV has reached high prevalence in many non-injecting drug user (NIDU) populations. The aims of this study were to (1) examine the trend in HIV prevalence among non-injecting cocaine and heroin NIDUs in New York City, (2) identify factors potentially associated with the trend and (3) estimate HIV incidence among NIDUs. Serial-cross sectional surveys of people entering drug treatment programs. People were permitted to participate only once per year, but could participate in multiple years. Mount Sinai Beth Israel drug treatment programs in New York City, USA. We recruited 3298 non-injecting cocaine and heroin users from 2005 to 2014. Participants were 78.7% male, 6.1% white, 25.7% Hispanic and 65.8% African American. Smoking crack cocaine was the most common non-injecting drug practice. Trend tests were used to examine HIV prevalence, demographics, drug use, sexual behavior and use of antiretroviral treatment (ART) by calendar year; $\chi(2)$ and multivariable logistic regression were used to compare 2005-10 versus 2011-14.HIV prevalence declined approximately 1% per year (P < 0.001), with a decline from 16% in 2005-10 to 8% in 2011-14 (P < 0.001). The percentages of participants smoking crack and having multiple sexual partners declined and the percentage of HIV-positive people on ART increased. HIV incidence among repeat participants was 1.2 per 1000 person-years (95% confidence interval = 0.03/1000-7/1000).HIV prevalence has declined and a high percentage of HIV-positive non-injecting drug users (NIDUs) are receiving antiretroviral treatment, suggesting an end to the HIV epidemic among NIDUs in New York City. These results can be considered a proof of concept that it is possible to control non-injecting drug use related sexual transmission HIV epidemics.

Beliefs About The Consequences Of Using Benzodiazepines Among Persons with Opioid Use Disorder.

Stein, Michael D; Anderson, Bradley J; Kenney, Shannon R; Bailey, Genie L. J Subst Abuse Treat. 2017 June; 77: 67-71.

Patients admitted to addiction treatment programs report high rates of concurrent opioid and benzodiazepine (BZD) use. This combination places individuals at high risk for accidental overdose and other serious consequences. However, little is known about the beliefs opioid users have about the consequences of BZD use. We surveyed

consecutive persons initiating inpatient opioid detoxification (N=476; 95.0% enrollment) and identified 245 who reported BZD use in the past 30 days and/or had a positive toxicology. We compared those who did and did not report BZD use on demographic and substance use variables, and specific beliefs about the potential effects of BZDs. Participants averaged 32.2 years of age, 71.2% were male, 86.6% used heroin, and 68.7% reported injection drug use in the past 30 days. Over half (51.5%) used a BZD in the month prior to admission; of these, 26.2% (n=64) reported being prescribed a BZD. Alprazolam (Xanax) was the most commonly used BZD (54%). Benzodiazepine users (versus non-users) were significantly more likely to be female and non-Hispanic White, use concurrent substances, and report past year overdose. Overall, nearly all BZD users endorsed accurate beliefs that BZDs can increase the risk of overdose and can be addictive. However, BZD users, relative to non-users, were significantly less likely to endorse some known adverse consequences of BZDs, such as risk of worsening depression and poor medication-assisted opioid treatment retention. Delineating the full array of risks from combining BZDs and opioids should be a high priority in detoxification settings, given the increased risks associated with BZD misuse in this population.

Imaging Decision About Whether To Benefit Self By Harming Others: Adolescents With Conduct And Substance Problems, With Or Without Callous-unemotionality, Or Developing Typically.

Sakai, Joseph T; Dalwani, Manish S; Mikulich-Gilbertson, Susan K; Raymond, Kristen; McWilliams, Shannon; Tanabe, Jody; Rojas, Don; Regner, Michael; Banich, Marie T; Crowley, Thomas J. Psychiatry Res. 2017 May 30; 263103-112.

We sought to identify brain activation differences in conduct-problem youth with limited prosocial emotions (LPE) compared to conduct-problem youth without LPE and community adolescents, and to test associations between brain activation and severity of callous-unemotional traits. We utilized a novel task, which asks subjects to repeatedly decide whether to accept offers where they will benefit but a beneficent other will be harmed. Behavior on this task has been previously associated with levels of prosocial emotions and severity of callous-unemotional traits, and is related to empathic concern. During fMRI acquisition, 66 male adolescents (21 conduct-problem patients with LPE, 21 without, and 24 typically-developing controls) played this novel game. Within typically-developing controls, we identified a network engaged during decision involving bilateral insula, and inferior parietal and medial frontal cortices, among other regions. Group comparisons using non-parametric (distribution-free) permutation tests demonstrated LPE patients had lower activation estimates than typically-developing adolescents in right anterior insula. Additional significant group differences emerged with our a priori parametric cluster-wise inference threshold. These results suggest measurable functional brain activation differences in conduct-problem adolescents with LPE compared to typically-developing adolescents. Such differences may underscore differential treatment needs for conduct-problem males with and without LPE.