Search Results

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Search History

1. PsycInfo; exp ADDICTION/ OR DRUG ABUSE [+NT]/ OR DRUG USAGE; 39753 results.
2. PsycInfo; addict*.ti,ab; 37548 results.
3. PsycInfo; 1 OR 2; 67864 results.

1. A behavioral economic analysis of the nonmedical use of prescription drugs among young adults.

Citation: Experimental and Clinical Psychopharmacology, Feb 2016, vol. 24, no. 1, p. 38-47, 1064-1297 (Feb 2016)

Author(s): Pickover, Alison M.; Messina, Bryan G.; Correia, Christopher J.; Garza, Kimberly B.; Murphy, James G.

Abstract: The nonmedical use of prescription drugs is a widely recognized public health issue, and young adults are particularly vulnerable to their use. Behavioral economic drug purchase tasks capture an individual's strength of desire and motivation for a particular drug. We examined young adult prescription drug purchase and consumption patterns using hypothetical behavioral economic purchase tasks for prescription sedatives/tranquilizers, stimulants, and opiate pain relievers. We also examined relations between demand, use frequency, and Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM–5) substance use disorder (SUD) symptoms, and sex differences in these relations. Undergraduate students who endorsed past-year prescription drug use (N = 393) completed an online questionnaire for course credit. Measures assessed substance use frequency and DSM–5 SUD symptoms. Hypothetical purchase tasks for sedatives, stimulants, and pain relievers assessed participants' consumption and expenditure patterns for these substances across 25 prices. Past-year prescription sedative, stimulant, and pain reliever use was endorsed by 138, 258, and 189 participants, respectively. Among these users, consumption for their respective substance decreased as a function of ascending price, as expected. Demand indices for a prescription drug were associated with each other and with use frequency and SUD symptoms, with variability across substances but largely not by sex. In addition, demand for prescription pain relievers differentially predicted symptoms independent of use, with differences for females and males. In conclusion, hypothetical consumption and expenditure patterns for prescription drugs were generally well described by behavioral economic demand curves, and the observed associations with use and SUD symptoms provide support for the utility of prescription drug purchase tasks. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings:
Prescription Drugs
Drug Abuse
Drug Usage
Behavioral Economics
Mental Disorders
Public Health

Source: PsycInfo

Full Text: Available from *ProQuest* in *Experimental and Clinical Psychopharmacology*

2. Comparison of nicotine dependence indicators in predicting quitting among pregnant smokers.

Citation: Experimental and Clinical Psychopharmacology, Feb 2016, vol. 24, no. 1, p. 12-17, 1064-1297 (Feb 2016)

Author(s): Kurti, Allison N.; Davis, Danielle R.; Skelly, Joan M.; Redner, Ryan; Higgins, Stephen T.

Abstract: Research in the general population of smokers indicates that across various measures of nicotine dependence, time to first cigarette (TTFC) is the strongest single-item predictor of quitting success. Whether those findings generalize to pregnant smokers is unclear. To investigate this matter, we compared TTFC with cigarettes per day (CPD) and the Heaviness of Smoking Index (HSI; Kozlowski, Porter, Orleans, Pope, & Heatherton, 1994) in predicting late-pregnancy abstinence among 289 pregnant women enrolled in 4 smoking-cessation trials assessing the efficacy of financial incentives. Logistic regression was used to compare predictors, with model fit measured using the c statistic (range = 0.5, poor prediction to 1.0, perfect prediction). In simple regressions, model fit was comparable across the 3 measures although strongest for CPD alone (c = 0.70, 0.68, 0.66 for CPD, HSI, and TTFC, respectively). In a stepwise multiple regression, treatment was entered first (c = 0.67), then CPD (c = 0.77), quit attempts prepregnancy (c = .81), TTFC (c = .82), and quit attempts during pregnancy (c = .83). We saw no evidence supporting

TTFC as the optimal predictor of quitting among pregnant smokers. Instead, the evidence supported using CPD and TTFC together or CPD alone if using only a single predictor. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings:
Nicotine
Side Effects (Drug)
Drug Dependency
Tobacco Smoking
Smoking Cessation
Pregnancy
Treatment Effectiveness Evaluation
Monetary Incentives

Source: PsycInfo

Full Text: Available from *ProQuest* in *Experimental and Clinical Psychopharmacology*

3. Discounting of qualitatively different delayed health outcomes in current and never smokers.

Citation: Experimental and Clinical Psychopharmacology, Feb 2016, vol. 24, no. 1, p. 18-29, 1064-1297 (Feb 2016)

Author(s): Friedel, Jonathan E.; DeHart, William B.; Frye, Charles C. J.; Rung, Jillian M.; Odum, Amy L.

Abstract: In delay discounting, temporally remote outcomes have less value. Cigarette smoking is associated with steeper discounting of money and consumable outcomes. It is presently unclear whether smokers discount health outcomes more than nonsmokers. We sought to establish the generality of steep discounting for different types of health outcomes in cigarette smokers. Seventy participants (38 smokers and 32 nonsmokers) completed 4 hypothetical outcome delay-discounting tasks: a gain of $500, a loss of $500, a temporary boost in health, and temporary cure from a debilitating disease. Participants reported the duration of each health outcome that would be equivalent to $500; these durations were then used in the respective discounting tasks. Delays ranged from 1 week to 25 years. Smokers' indifference points for monetary gains, boosts in health, and temporary cures were lower than indifference points from nonsmokers. Indifference points of 1 outcome were correlated with indifference points of other outcomes. Smokers demonstrate steeper discounting across a range of delayed outcomes. How a person discounts 1 outcome predicts how they will discount other outcomes. These 2 findings support our assertion that delay discounting is in part a trait. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings:
Reinforcement Amounts
Reinforcement Delay
Tobacco Smoking
Health
Self-Control
Impulsiveness

Source: PsycInfo

Full Text: Available from *ProQuest* in *Experimental and Clinical Psychopharmacology*

4. Thriving while engaging in risk? Examining trajectories of adaptive functioning, delinquency, and substance use in a nationally representative sample of U.S. adolescents.

Citation: Developmental Psychology, Feb 2016, vol. 52, no. 2, p. 296-310, 0012-1649 (Feb 2016)

Author(s): Warren, Michael T.; Wray-Lake, Laura; Rote, Wendy M.; Shubert, Jennifer

Abstract: Recent advances in positive youth development theory and research explicate complex associations between adaptive functioning and risk behavior, acknowledging that high levels of both co-occur in the lives of some adolescents. However, evidence on nuanced overlapping developmental trajectories of adaptive functioning and risk has been limited to 1 sample of youth and a single conceptualization of adaptive functioning. We build on prior work by utilizing a nationally representative sample of U.S. adolescents (N = 1,665)

followed from 7th grade until after high school and using a measure of adaptive functioning that was validated in a secondary sample of older adolescents (N = 93). In using dual trajectory growth mixture modeling to investigate links between developmental trajectories of adaptive functioning and delinquency and substance use, respectively, results provided evidence of heterogeneity in the overlap between adaptive functioning and risk trajectories. Males were more likely to be in the highest adaptive functioning group as well as the most at-risk delinquency class. The magnitude of negative associations between adaptive functioning and both risk behaviors decreased at Wave 3, indicating a decoupling of adaptive functioning and risk as youth aged. These findings converge in underscoring the need to generate a cohesive theory that specifies factors that promote adaptive functioning and risk in concert. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings:
Adolescent Development
Juvenile Delinquency
Adaptive Behavior
Risk Assessment
Drug Usage

Source: PsycInfo

Full Text: Available from *ProQuest* in *Developmental Psychology*

5. Hypothalamic neuropeptide signaling in alcohol addiction.

Citation: Progress in Neuro-Psychopharmacology & Biological Psychiatry, Feb 2016, vol. 65, p. 321-329, 0278-5846 (Feb 4, 2016)

Author(s): Barson, Jessica R.; Leibowitz, Sarah F.

Abstract: The hypothalamus is now known to regulate alcohol intake in addition to its established role in food intake, in part through neuromodulatory neurochemicals termed neuropeptides. Certain orexigenic neuropeptides act in the hypothalamus to promote alcohol drinking, although they affect different aspects of the drinking response. These neuropeptides, which include galanin, the endogenous opioid enkephalin, and orexin/hypocretin, appear to stimulate alcohol intake not only through mechanisms that promote food intake but also by enhancing reward and reinforcement from alcohol. Moreover, these neuropeptides participate in a positive feedback relationship with alcohol, whereby they are upregulated by alcohol intake to promote even further consumption. They contrast with other orexigenic neuropeptides, such as melanin-concentrating hormone and neuropeptide Y, which promote alcohol intake under limited circumstances, are not consistently stimulated by alcohol, and do not enhance reward. They also contrast with neuropeptides that can be anorexigenic, including the endogenous opioid dynorphin, corticotropin-releasing factor, and melanocortins, which act in the hypothalamus to inhibit alcohol drinking as well as reward and therefore counter the ingestive drive promoted by orexigenic neuropeptides. Thus, while multiple hypothalamic neuropeptides may work together to regulate different aspects of the alcohol drinking response, excessive signaling from orexigenic neuropeptides or inadequate signaling from anorexigenic neuropeptides can therefore allow alcohol drinking to become dysregulated. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings:
Orexin
Neuropeptide Y
Appetite Depressing Drugs
Neuropeptides
Hypothalamus
Food Intake
Alcoholism

Source: PsycInfo

6. Alterations of naltrexone-induced conditioned place avoidance by pre-exposure to high fructose corn syrup or heroin in Sprague–Dawley rats.

Citation: Psychopharmacology, Feb 2016, vol. 233, no. 3, p. 425-433, 0033-3158 (Feb 2016)

Author(s): Daniels, Stephen; Marshall, Paul; Leri, Francesco

Abstract: Rationale: It has been suggested that withdrawal from sugar produces a set of symptoms that resemble those observed following withdrawal from opiate drugs.Objectives: This study explored naltrexone-induced withdrawal in animals pre-exposed to acute, chronic, and intermittent high fructose corn syrup (HFCS) or acute and chronic heroin administration. Methods: Experiment 1 examined conditioned place avoidance (CPA) induced by different doses of naltrexone (0.01–1 mg/kg) in naïve male Sprague–Dawley rats. In experiment 2, rats received continuous or intermittent home cage HFCS access (0 or 50 %) prior to conditioning with 1 mg/kg naltrexone. In experiment 3, HFCS ingestion was increased by food restriction and rats were conditioned with 3 mg/kg naltrexone. In experiment 4, the timing and quantity of HFCS ingestion (0, 0.5, 1, 2 g/kg) was controlled by intragastric administration, and rats were conditioned with 1 mg/kg naltrexone. In experiment 5, rats received acute (2 mg/kg) or chronic heroin (3.5 mg/kg/day) prior to conditioning with 1 mg/kg naltrexone. Results: Administration of naltrexone produced moderate conditioned place avoidance in naïve rats. Importantly, acute, continuous, and intermittent HFCS pre-exposure did not significantly amplify this effect, but acute and chronic heroin pre-exposure did. Conclusions: As assessed by CPA, these results in rats fail to support the hypothesis that an opioid antagonist can precipitate similar affective withdrawal states following pre-exposure to sugars and opiates. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings: Symptoms
Heroin Addiction
Sugars
Rats
Naltrexone

Source: PsycInfo

7. Youth is not wasted on the young: Commentary on a BBR themed issue on developmental regulation of memory in anxiety and addiction.

Citation: Behavioural Brain Research, Feb 2016, vol. 298, no. Part A, p. 1-3, 0166-4328 (Feb 1, 2016)

Author(s): Kim, Jee Hyun

Abstract: This article provides an overview on Behavioural Brain Research (BBR) themed issue on developmental regulation of memory in anxiety and addiction. It is with great enthusiasm to dedicate a special issue of BBR on developmental regulation of memory in anxiety and addiction. Contextual learning abilities are not the same as spatial learning abilities. The controversy surrounding the ontogeny of contextual memory has centered around whether it can be consolidated once acquired, because young rodents clearly acquire contextual memory but may fail to consolidate it. (PsycINFO Database Record (c) 2016 APA, all rights reserved)

Subject Headings: Brain
Addiction
Anxiety
Learning
Retention

Source: PsycInfo

8. The role of the gut–brain axis in alcohol use disorders.

Citation: Progress in Neuro-Psychopharmacology & Biological Psychiatry, Feb 2016, vol. 65, p. 234-241, 0278-5846 (Feb 4, 2016)

Author(s): Gorky, Jonathan; Schwaber, James

Abstract: Neuroimmune and inflammatory processes have been locally associated with the amygdala in alcohol exposure and withdrawal. We and others have suggested that this

inflammation in the amygdala may cause disturbance of neural function observed as anxiety and autonomic distress in withdrawal. Despite the potential importance of the robust neuroinflammatory response, the mechanisms contributing to this response are not well understood. We review literature that suggests the effects of alcohol, and other substances of abuse, cause dysbiosis of the gut microbiome. This peripheral response may modulate neuroprotective vagal afferent signaling that permits and exacerbates a neuroinflammatory response in the amygdala. We will examine the mounting evidence that suggests that (1) gut dysbiosis contributes to neuroinflammation, especially in the context of alcohol exposure and withdrawal, (2) the neuroinflammation in the amygdala involves the microglia and astrocytes and their effect on neural cells, and (3) amygdala neuroinflammation itself contributes directly to withdrawal behavior and symptoms. The contribution of the gut to an anxiogenic response is a promising therapeutic target for patients suffering with withdrawal symptoms given the safe and well-established methods of modulating the gut microbiome. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings:
Animal Models
Chemical Exposure
Alcohol Withdrawal
Amygdala
Alcoholism

Source: PsycInfo

9. Glutamatergic plasticity and alcohol dependence-induced alterations in reward, affect and cognition.

Citation: Progress in Neuro-Psychopharmacology & Biological Psychiatry, Feb 2016, vol. 65, p. 309-320, 0278-5846 (Feb 4, 2016)

Author(s): Burnett, Elizabeth J.; Chandler, L. Judson; Trantham-Davidson, Heather

Abstract: Introduction: Alcohol dependence is characterized by a reduction in reward threshold, development of a negative affective state, and significant cognitive impairments. Dependence-induced glutamatergic neuroadaptations in the neurocircuitry mediating reward, affect and cognitive function are thought to underlie the neural mechanism for these alterations. These changes serve to promote increased craving for alcohol and facilitate the development of maladaptive behaviors that promote relapse to alcohol drinking during periods of abstinence. Objective: To review the extant literature on the effects of chronic alcohol exposure on glutamatergic neurotransmission and its impact on reward, affect and cognition. Results: Evidence from a diverse set of studies demonstrates significant enhancement of glutamatergic activity following chronic alcohol exposure. In particular, up-regulation of GluN2B-containing NMDA receptor expression and function is a commonly observed phenomenon that likely reflects activity-dependent adaptive homeostatic plasticity. However, this observation as well as other glutamatergic neuroadaptations are often circuit and cell-type specific. Discussion: Dependence-induced alterations in glutamate signaling contribute to many of the symptoms experienced in addicted individuals and can persist well into abstinence. This suggests that they play an important role in the development of behaviors that increase the probability for relapse. As our understanding of the complexity of the neurocircuitry involved in the addictive process has advanced, it has become increasingly clear that investigations of cell-type and circuit-specific effects are required to gain a more comprehensive understanding of the glutamatergic adaptations and their functional consequences in alcohol addiction. Conclusion: While pharmacological treatments for alcohol dependence and relapse targeting the glutamatergic system have shown great promise in preclinical models, more research is needed to uncover novel, possibly circuit-specific, therapeutic targets that exhibit improved efficacy and reduced side effects. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings:
Rewards
Neurotransmission
Cognition
Thresholds

Glutamic Acid
Addiction

Source: PsycInfo

10. Critical needs in drug discovery for cessation of alcohol and nicotine polysubstance abuse.

Citation: Progress in Neuro-Psychopharmacology & Biological Psychiatry, Feb 2016, vol. 65, p. 269-287, 0278-5846 (Feb 4, 2016)

Author(s): Van Skike, C. E.; Maggio, S. E.; Reynolds, A. R.; Casey, E. M.; Bardo, M. T.; Dwoskin, L. P.; Prendergast, M. A.; Nixon, K.

Abstract: Polysubstance abuse of alcohol and nicotine has been overlooked in our understanding of the neurobiology of addiction and especially in the development of novel therapeutics for its treatment. Estimates show that as many as 92% of people with alcohol use disorders also smoke tobacco. The health risks associated with both excessive alcohol consumption and tobacco smoking create an urgent biomedical need for the discovery of effective cessation treatments, as opposed to current approaches that attempt to independently treat each abused agent. The lack of treatment approaches for alcohol and nicotine abuse/dependence mirrors a similar lack of research in the neurobiology of polysubstance abuse. This review discusses three critical needs in medications development for alcohol and nicotine co-abuse: (1) the need for a better understanding of the clinical condition (i.e. alcohol and nicotine polysubstance abuse), (2) the need to better understand how these drugs interact in order to identify new targets for therapeutic development and (3) the need for animal models that better mimic this human condition. Current and emerging treatments available for the cessation of each drug and their mechanisms of action are discussed within this context followed by what is known about the pharmacological interactions of alcohol and nicotine. Much has been and will continue to be gained from studying comorbid alcohol and nicotine exposure. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings:
Nicotine
Neurobiology
Alcohols
Animal Models
Alcohol Abuse
Addiction
Cholinergic Receptors
Drug Therapy

Source: PsycInfo

11. Opposing effects of alcohol on the immune system.

Citation: Progress in Neuro-Psychopharmacology & Biological Psychiatry, Feb 2016, vol. 65, p. 242-251, 0278-5846 (Feb 4, 2016)

Author(s): Barr, Tasha; Helms, Christa; Grant, Kathleen; Messaoudi, Ilhem

Abstract: Several studies have described a dose-dependent effect of alcohol on human health with light to moderate drinkers having a lower risk of all-cause mortality than abstainers, while heavy drinkers are at the highest risk. In the case of the immune system, moderate alcohol consumption is associated with reduced inflammation and improved responses to vaccination, while chronic heavy drinking is associated with a decreased frequency of lymphocytes and increased risk of both bacterial and viral infections. However, the mechanisms by which alcohol exerts a dose-dependent effect on the immune system remain poorly understood due to a lack of systematic studies that examine the effect of multiple doses and different time courses. This review will summarize our current understanding of the impact of moderate versus excessive alcohol consumption on the innate and adaptive branches of the immune system derived from both in vitro as well as in vivo studies carried out in humans and animal model studies. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings: Death and Dying

Etiology
Animal Models
Inflammation
Immune System
Alcoholism

Source: PsycInfo

12. Delta, theta, and alpha event-related oscillations in alcoholics during Go/NoGo task: Neurocognitive deficits in execution, inhibition, and attention processing.

Citation: Progress in Neuro-Psychopharmacology & Biological Psychiatry, Feb 2016, vol. 65, p. 158-171, 0278-5846 (Feb 4, 2016)

Author(s): Pandey, Ashwini K.; Kamarajan, Chella; Manz, Niklas; Chorlian, David B.; Stimus, Arthur; Porjesz, Bernice

Abstract: Higher impulsivity observed in alcoholics is thought to be due to neurocognitive functional deficits involving impaired inhibition in several brain regions and/or neuronal circuits. Event-related oscillations (EROs) offer time-frequency measure of brain rhythms during perceptual and cognitive processing, which provide a detailed view of neuroelectric oscillatory responses to external/internal events. The present study examines evoked power (temporally locked to events) of oscillatory brain signals in alcoholics during an equal probability Go/NoGo task, assessing their functional relevance in execution and inhibition of a motor response. The current study hypothesized that increases in the power of slow frequency bands and their topographical distribution is associated with tasks that have increased cognitive demands, such as the execution and inhibition of a motor response. Therefore, it is hypothesized that alcoholics would show lower spectral power in their topographical densities compared to controls. The sample consisted of 20 right-handed abstinent alcoholic males and 20 age and gender-matched healthy controls. Evoked delta (1.0–3.5 Hz; 200–600 ms), theta (4.0–7.5 Hz; 200–400 ms), slow alpha (8.0–9.5 Hz; 200–300 ms), and fast alpha (10.0–12.5 Hz; 100–200 ms) ERO power were compared across group and task conditions. Compared to controls, alcoholics had higher impulsiveness scores on the Barrett Impulsiveness Scale (BIS-11) and made more errors on Go trials. Alcoholics showed significantly lower evoked delta, theta, and slow alpha power compared to controls for both Go and NoGo task conditions, and lower evoked fast alpha power compared to controls for only the NoGo condition. The results confirm previous findings and are suggestive of neurocognitive deficits while executing and suppressing a motor response. Based on findings in the alpha frequency ranges, it is further suggested that the inhibitory processing impairments in alcoholics may arise from inadequate early attentional processing with respect to the stimulus related aspects/semantic memory processes, which may be reflected in lower posterio-temporal evoked fast alpha power. It can thus be concluded that alcoholics show neurocognitive deficits in both execution and suppression of a motor response and inadequate early attentional processing with respect to the semantic memory/stimulus related aspects while suppressing a motor response. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings:
Clonidine
Attention
Motor Performance
Alcoholism
Impulsiveness

Source: PsycInfo

13. Medications between psychiatric and addictive disorders.

Citation: Progress in Neuro-Psychopharmacology & Biological Psychiatry, Feb 2016, vol. 65, p. 215-223, 0278-5846 (Feb 4, 2016)

Author(s): Lalanne, Laurence; Lutz, Pierre-Eric; Trojak, Benoit; Lang, Jean-Philippe; Kieffer, Brigitte L.; Bacon, Elisabeth

Abstract: Introduction: Many epidemiological studies have revealed a frequent co-occurrence of psychiatric and substance use disorders. The term used in the literature to refer to this co-occurrence is dual diagnosis. The high prevalence of dual diagnosis has led physicians to observe the effects of medication prescribed to treat psychiatric disorders on the co-occurring substance use disorder and vice versa. The concept of medications between psychiatric and addictive disorders stems from these clinical observations, alongside which, however, it has developed from the observation that both psychiatric and substance use disorders share common neurobiological pathways and trigger common cognitive disorders. This has led researchers to develop medications on the basis of neurobiological and cognitive rationales. Material and method: In our article, we review peculiar medications based on neurobiological and cognitive rationales and that have an impact in both psychiatric and addictive disorders. Results: We highlight how interesting these new prescriptions are for clinical observation and for the treatment of patients suffering from dual diagnosis. Conclusion: We then go on to discuss the interest in them from the perspective of clinical practice and clinical research, in that the development of medications to treat dual diagnosis helps to further our knowledge of both psychiatric and substance use disorders. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings:
Comorbidity
Epidemiology
Drug Therapy
Addiction
Dual Diagnosis
Mental Disorders

Source: PsycInfo

14. l-Scoulerine attenuates behavioural changes induced by methamphetamine in zebrafish and mice.

Citation: Behavioural Brain Research, Feb 2016, vol. 298, no. Part A, p. 97-104, 0166-4328 (Feb 1, 2016)

Author(s): Mi, Guiyun; Gao, Yunyun; Yan, Hui; Jin, Xiao; Ye, Enmao; Liu, Shuai; Gong, Zehui; Yang, Hongju; Yang, Zheng

Abstract: Methamphetamine (METH), a substance with a high potential for abuse and addiction, is a serious worldwide public health problem. METH addicts often show extreme paranoia, anxiety, and depression. Thus, there is no effective medication for the treatment of METH-induced abnormalities. In the present study, we investigated the effects of l-Scoulerine (l-SLR), a tetrahydroprotoberberine (THPBS) alkaloid, on METH-induced anxiety-like behaviour in zebrafish and METH-induced addictive behavior in mice. In the novel tank test, acute administration of METH (2 mg/L) induced a significant decrease in the number of total vertical transitions and time spent in the upper zone. Moreover, METH produced significant avoidance behaviour showing increased swimming time in the central area and high speed movement in the mirror area in the mirror stimulation test; these anxiety-like changes were attenuated by l-SLR. Chronic administration of METH (2 mg/kg) produced a steady increase in locomotor activity and conditioned place preference in mice. l–SLR (5 mg/kg) failed to reduce acute METH-induced hyperlocomotion, but attenuated chronic METH-induced behavioural sensitization and significantly blocked the expression of conditioned place preference induced by METH in mice. The present study suggests that l-SLR may be a promising agent for the treatment of addiction and anxiety induced by METH. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings:
Methamphetamine
Anxiety
Public Health
Chemical Exposure
Place Conditioning
Mice
Addiction

Source: PsycInfo

15. Impulsivity and polysubstance use: A systematic comparison of delay discounting in mono-, dual-, and trisubstance use.

Citation: Experimental and Clinical Psychopharmacology, Feb 2016, vol. 24, no. 1, p. 30-37, 1064-1297 (Feb 2016)

Author(s): Moody, Lara; Franck, Christopher; Hatz, Laura; Bickel, Warren K.

Abstract: Understanding the association between polysubstance use and impulsivity is pertinent to treatment planning and efficacy. Delay discounting, a measure of impulsivity, supplies the rate at which a reinforcer loses value as the temporal delay to its receipt increases. Excessive delay discounting has been widely observed among drug-using individuals, though the impact of using more than 1 substance has been only minimally studied. Here, after controlling for demographic variables, we systematically compared delay discounting in community controls, heavy smokers, and alcohol- and cocaine-dependent individuals to assess the impact of non-, mono-, dual-, and trisubstance use. All substance-using groups discounted significantly more than did community controls ($p < .05$). Additionally, groups that smoked cigarettes in addition to another substance dependency discounted significantly more than did the group that smoked cigarettes only ($p < .05$). Last, trisubstance users who were alcohol-dependent, cocaine-dependent, and heavy cigarette smokers discounted significantly more than did heavy smokers ($p < .01$). However, trisubstance users did not discount significantly more than did any dual-substance group. Trisubstance use was associated with greater impulsivity than was monosubstance smoking but exhibited no greater impulsivity than did dual-substance use, suggesting a ceiling effect on discounting when more than 2 substances are in use. The present study suggests that smokers who engage in additional substance use may experience worse treatment outcomes, given that excessive discounting is predictive of poor therapeutic outcomes in several studies. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings:
Decision Making
Treatment Planning
Side Effects (Drug)
Drug Abuse
Tobacco Smoking
Drug Therapy
Treatment Outcomes
Cocaine
Alcoholism
Impulsiveness

Source: PsycInfo

Full Text: Available from *ProQuest* in *Experimental and Clinical Psychopharmacology*

16. Susceptibility effects of GABA receptor subunit alpha-2 (GABRA2) variants and parental monitoring on externalizing behavior trajectories: Risk and protection conveyed by the minor allele.

Citation: Development and Psychopathology, Feb 2016, vol. 28, no. 1, p. 15-26, 0954-5794 (Feb 2016)

Author(s): Trucco, Elisa M.; Villafuerte, Sandra; Heitzeg, Mary M.; Burmeister, Margit; Zucker, Robert A.

Subject Headings:
Externalization
Adolescent Development
Gamma Aminobutyric Acid
Neural Receptors
Parent Child Relations
Alcoholism

Source: PsycInfo

17. Withdrawal symptoms in internet gaming disorder: A systematic review.

Citation: Clinical Psychology Review, Feb 2016, vol. 43, p. 58-66, 0272-7358 (Feb 2016)

Author(s): Kaptsis, Dean; King, Daniel L.; Delfabbro, Paul H.; Gradisar, Michael

Abstract: Internet gaming disorder (IGD) is currently positioned in the appendix of the DSM-5 as a condition requiring further study. The aim of this review was to examine the state of current knowledge of gaming withdrawal symptomatology, given the importance of withdrawal in positioning the disorder as a behavioral addiction. A total of 34 studies, including 10 qualitative studies, 17 research reports on psychometric instruments, and 7 treatment studies, were evaluated. The results indicated that the available evidence on Internet gaming withdrawal is very underdeveloped. Internet gaming withdrawal is most consistently referred to as 'irritability' and 'restlessness' following cessation of the activity. There exists a concerning paucity of qualitative studies that provide detailed clinical descriptions of symptoms arising from cessation of internet gaming. This has arguably compromised efforts to quantify withdrawal symptoms in empirical studies of gaming populations. Treatment studies have not reported on the natural course of withdrawal and/or withdrawal symptom trajectory following intervention. It is concluded that many more qualitative clinical studies are needed, and should be prioritised, to develop our understanding of gaming withdrawal. This should improve clinical descriptions of problematic internet gaming and in turn improve the quantification of IGD withdrawal and thus treatments for harmful internet gaming. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings: Symptoms
Internet Addiction
Computer Games
Craving
Diagnostic and Statistical Manual

Source: PsycInfo

18. The development of compulsive internet use and mental health: A four-year study of adolescence.

Citation: Developmental Psychology, Feb 2016, vol. 52, no. 2, p. 272-283, 0012-1649 (Feb 2016)

Author(s): Ciarrochi, Joseph; Parker, Philip; Sahdra, Baljinder; Marshall, Sarah; Jackson, Chris; Gloster, Andrew T.; Heaven, Patrick

Abstract: Is compulsive Internet use (CIU) an antecedent to poor mental health, a consequence, or both? Study 1 used a longitudinal design to track the development of CIU and mental health in Grade 8 (N = 1030 males, 1038 females, Mage = 13.7), 9, 10, and 11. Study 2 extended Study 1 by examining the kinds of Internet behaviors most strongly associated with CIU within males and females. Structural equation modeling revealed that CIU predicted the development of poor mental health, whereas poor mental health did not predict CIU development. Latent growth analyses showed that both females and males increased in CIU and mental health problems across the high school years. Females had higher CIU and worse mental health than males, and tended to engage in more social forms of Internet use. We discuss future directions for CIU intervention research. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings: Adolescent Development
Internet Addiction
Compulsions
Mental Health
Internet

Source: PsycInfo

Full Text: Available from *ProQuest* in *Developmental Psychology*

19. Oxytocin decreases cocaine taking, cocaine seeking, and locomotor activity in female rats.

Citation: Experimental and Clinical Psychopharmacology, Feb 2016, vol. 24, no. 1, p. 55-64, 1064-1297 (Feb 2016)

Author(s): Leong, Kah-Chung; Zhou, Luyi; Ghee, Shannon M.; See, Ronald E.; Reichel, Carmela M.

Abstract: Oxytocin has been shown to decrease cocaine taking and seeking in male rats, suggesting potential treatment efficacy for drug addiction. In the present study, we extended these findings to the assessment of cocaine seeking and taking in female rats. Further, we made direct comparisons of oxytocin's impact on cocaine induced locomotor activity in both males and females. In females, systemic oxytocin (0.3, 1.0, 3.0 mg/kg) attenuated lever pressing for cocaine during self-administration and oxytocin (1.0 mg/kg) attenuated cue-induced cocaine seeking following extinction. Cocaine increased baseline locomotor activity to a greater degree in females relative to males. Oxytocin (0.1, 0.3, 1.0, and 3.0 mg/kg) reduced cocaine-induced locomotor activity in females, but not significantly in males. These data illustrate sex similarities in oxytocin's attenuation of cocaine seeking, but sex differences in cocaine-induced locomotor effects. While reductions in cocaine seeking cannot be attributed to a reduction in locomotor activity in males, attenuation of locomotor function cannot be entirely ruled out as an explanation for a decrease in cocaine seeking in females suggesting that oxytocin's effect on cocaine seeking may be mediated by different mechanisms in male and females. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings:
Rats
Drug Addiction
Drugs
Drug Self Administration
Animal Sex Differences
Motor Processes
Oxytocin
Cocaine

Source: PsycInfo

Full Text: Available from *ProQuest* in *Experimental and Clinical Psychopharmacology*

20. Prospective memory impairments in heavy social drinkers are partially overcome by future event simulation.

Citation: Psychopharmacology, Feb 2016, vol. 233, no. 3, p. 499-506, 0033-3158 (Feb 2016)

Author(s): Platt, Bradley; Kamboj, Sunjeev K.; Italiano, Tommaso; Rendell, Peter G.; Curran, H. Valerie

Abstract: Background: Recent research suggests that alcohol acutely impairs prospective memory (PM), and this impairment can be overcome using a strategy called 'future event simulation' (FES). Impairment in event-based PM found in detoxifying alcohol-dependent participants is reversed through FES. However, the impact of the most common problematic drinking patterns that do not involve alcohol dependence on PM remains unclear. Aims: Here, we examine the impact of frequent heavy drinking on PM and the degree to which any impairments can be reversed through FES. Methods: PM was assessed in 19 heavy drinkers (AUDIT scores ≥15) and 18 matched control participants (AUDIT scores ≤7) using the 'Virtual Week' task both at baseline and again following FES. Results: Heavy drinkers performed significantly worse than controls on regular and irregular time-based PM tasks. FES improved the performance of controls but not of heavy drinkers on time-based tasks. In contrast, FES improved heavy drinkers' performance on event-based PM tasks. Conclusions: These findings suggest that heavy drinkers experience deficits in strategic monitoring processing associated with time-based PM tasks which do not abate after FES. That the same strategy improves their event-based PM suggests that FES may be helpful for individuals with problematic drinking patterns in improving their prospective memory. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings:
Prospective Memory
Simulation
Alcohols

Alcohol Abuse
Alcoholism

Source: PsycInfo

21. Alcohol addiction and the mu-opioid receptor.

Citation: Progress in Neuro-Psychopharmacology & Biological Psychiatry, Feb 2016, vol. 65, p. 228-233, 0278-5846 (Feb 4, 2016)

Author(s): Berrettini, Wade

Abstract: Alcohol addiction is one of the most common and devastating diseases in the world. Given the tremendous heterogeneity of alcohol addicted individuals, it is unlikely that one medication will help nearly all patients. Thus, there is a clear need to develop predictors of response to existing medications. Naltrexone is a mu-opioid receptor antagonist which has been approved in the United States for treatment of alcohol addiction since 1994. It has limited efficacy, in part due to noncompliance, but many patients do not respond despite high levels of compliance. There are reports that a mis-sense single nucleotide polymorphism (rs179919 or A118G) in the mu-opioid receptor gene predicts a favorable response to naltrexone if an individual carries a 'G' allele. This chapter will review the evidence for this hypothesis. The data are promising that the 'G' allele predisposes to a beneficial naltrexone response among alcohol addicted persons, but additional research is needed to prove this hypothesis in prospective clinical trials. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings:
Polymorphism
Naltrexone
Drug Therapy
Dopamine
Opiates
Alcoholism

Source: PsycInfo

22. Alcohol-induced dysregulation of stress-related circuitry: The search for novel targets and implications for interventions across the sexes.

Citation: Progress in Neuro-Psychopharmacology & Biological Psychiatry, Feb 2016, vol. 65, p. 252-259, 0278-5846 (Feb 4, 2016)

Author(s): Retson, T. A.; Sterling, R. C.; Van Bockstaele, E. J.

Abstract: While the ability to process fermented fruits and alcohols was once an adaptive trait that improved nutrition and quality of life, the availability and prevalence of high potency alcoholic drinks has contributed to alcohol abuse disorders in a vulnerable portion of the population. Although the neural reward systems take part in the initial response to alcohol, negative reinforcement and stress, which are normally adaptive responses, can intersect to promote continued alcohol use at all stages of the addiction cycle. Eventually a point is reached where these once adaptive responses become dysregulated resulting in uncontrolled intake that constitutes a clinically important condition termed alcohol use disorder (AUD). Current research is targeted at both the behavioral and molecular adaptations in AUDs in an effort to better develop novel approaches to intervention. In this review, historical context is provided demonstrating the societal burden of alcohol use and abuse disorders. The importance of gender in the mechanism of action of alcohol is discussed. Finally, the impact of alcohol on stress-related circuitry, uncovered by preclinical research, is outlined to provide insight into potential novel pharmacological approaches to the treatment of AUD. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings:
Stress
Locus Ceruleus
Human Sex Differences
Negative Reinforcement
Alcohol Abuse

Amygdala
Intervention

Source: PsycInfo

23. Melatonin treatment during the incubation of sensitization attenuates methamphetamine-induced locomotor sensitization and MeCP2 expression.

Citation: Progress in Neuro-Psychopharmacology & Biological Psychiatry, Feb 2016, vol. 65, p. 145-152, 0278-5846 (Feb 4, 2016)

Author(s): Wu, Jintao; Zhu, Dexiao; Zhang, Jing; Li, Guibao; Liu, Zengxun; Sun, Jinhao

Abstract: Behavior sensitization is a long-lasting enhancement of locomotor activity after exposure to psychostimulants. Incubation of sensitization is a phenomenon of remarkable augmentation of locomotor response after withdrawal and reflects certain aspects of compulsive drug craving. However, the mechanisms underlying these phenomena remain elusive. Here we pay special attention to the incubation of sensitization and suppose that the intervention of this procedure will finally decrease the expression of sensitization. Melatonin is an endogenous hormone secreted mainly by the pineal gland. It is effective in treating sleep disorder, which turns out to be one of the major withdrawal symptoms of methamphetamine (MA) addiction. Furthermore, melatonin can also protect neuronal cells against MA-induced neurotoxicity. In the present experiment, we treated mice with low dose (10 mg/kg) of melatonin for 14 consecutive days during the incubation of sensitization. We found that melatonin significantly attenuated the expression of sensitization. In contrast, the vehicle treated mice showed prominent enhancement of locomotor activity after incubation. MeCP2 expression was also elevated in the vehicle treated mice and melatonin attenuated its expression. Surprisingly, correlation analysis suggested significant correlation between MeCP2 expression in the nucleus accumbens (NAc) and locomotion in both saline control and vehicle treated mice, but not in melatonin treated ones. MA also induced MeCP2 over-expression in PC12 cells. However, melatonin failed to reduce MeCP2 expression in vitro. Our results suggest that melatonin treatment during the incubation of sensitization attenuates MA-induced expression of sensitization and decreases MeCP2 expression in vivo. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings:
Melatonin
Sensitization
Mice
Methamphetamine
Neurotoxicity

Source: PsycInfo

24. New progress in understanding the molecular, cellular, and genetic basis of alcohol and poly-substance abuse.

Citation: Progress in Neuro-Psychopharmacology & Biological Psychiatry, Feb 2016, vol. 65, p. 225-227, 0278-5846 (Feb 4, 2016)

Author(s): Van Bockstaele, Elisabeth J.; Morgan, Daniel; Richardson, Heather

Abstract: This editorial presents an introduction of articles that were featured in this issue of The Journal of Progress in Neuro-Psychopharmacology & Biological Psychiatry. The collection of reviews in this special issue is intended to highlight emerging areas of scientific discovery in the field of alcohol and poly-substance addiction. As their basic knowledge of adaptive experience-dependent plasticity continues to progress, a better understanding of the substrates underlying neural circuit dysfunction and circuit re-modeling in addictive-like behaviors will allow the identification of novel targets for intervention and treatment. (PsycINFO Database Record (c) 2016 APA, all rights reserved)

Subject Headings:
Genetics
Drug Abuse
Psychopharmacology
Alcohol Abuse

Source: PsycInfo

25. Temperament and Externalizing Behavior as Mediators of Genetic Risk on Adolescent Substance Use.

Citation: Journal of Abnormal Psychology, Feb 2016, (Feb 4, 2016), 0021-843X (Feb 4, 2016)

Author(s): Trucco, Elisa M.; Hicks, Brian M.; Villafuerte, Sandra; Nigg, Joel T.; Burmeister, Margit; Zucker, Robert A.

Abstract: Understanding how specific genes contribute to risk for addiction remains challenging. This study tests whether childhood temperament and externalizing behavior in early adolescence account for a portion of the association between specific genetic variants and substance use problems in late adolescence. The sample consisted of 487 adolescents from the Michigan Longitudinal Study, a high-risk sample (70.2% male, 81.7% European American ancestry). Polymorphisms across serotonergic (SLC6A4, 5-HTTLPR), dopaminergic (DRD4, u-VNTR), noradrenergic (SLC6A2, rs36021), and GABAergic (GABRA2, rs279858; GABRA6, rs3811995) genes were examined given prior support for associations with temperament, externalizing behavior, and substance use problems. The temperament traits behavioral control and resiliency were assessed using interviewer ratings (ages 9–11), and externalizing behavior (ages 12–14) was assessed using teacher ratings. Self-reported substance use outcomes (ages 15–17) included maximum alcoholic beverages consumed in 24 hours, and frequency of past year cigarette and marijuana use. Behavioral control, resiliency, and externalizing behavior accounted for the associations between polymorphisms in noradrenergic and GABAergic genes and substance use in late adolescence. Individual differences in emotional coping and behavioral regulation represent nonspecific neurobiological underpinnings for an externalizing pathway to addiction. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings: No terms assigned

Source: PsycInfo

Full Text: Available from *ProQuest* in *Journal of Abnormal Psychology*

26. The 5-HT2C receptor agonist lorcaserin reduces cocaine self-administration, reinstatement of cocaine-seeking and cocaine induced locomotor activity.

Citation: Neuropharmacology, Feb 2016, vol. 101, p. 237-245, 0028-3908 (Feb 2016)

Author(s): Harvey-Lewis, Colin; Li, Zhaoxia; Higgins, Guy A.; Fletcher, Paul J.

Abstract: Lorcaserin (Lorqess, Belviq®) is a selective 5-HT2C receptor agonist that has received FDA approval for the treatment of obesity. 5-HT2C receptor agonists are also efficacious in decreasing multiple aspects of cocaine motivation and reward in preclinical models. This would suggest that lorcaserin is a clinically available therapeutic with the potential to treat cocaine addiction. Here we report the effects of lorcaserin (0.1 mg/kg–1.0 mg/kg) on multiple aspects of cocaine-related behaviours in rats. We find that lorcaserin dose-dependently decreases cocaine self-administration on progressive and fixed ratio schedules of reinforcement. Lorcaserin also reduces reinstatement of cocaine-seeking behaviour in response to priming injections of cocaine and/or reintroduction of cocaine-associated cues. Finally, lorcaserin dose-dependently decreases cocaine-induced hyperlocomotion. Our results, when considered in concert with similar emergent findings in non-human primates, strongly support continued research into the potential of lorcaserin as a clinical treatment for cocaine addiction. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings: Rats
Drug Seeking
Drug Self Administration
Animal Locomotion
Drug Therapy
Cocaine
Reinstatement

Source: PsycInfo

27. Activation of serotonin 5-HT2C receptor suppresses behavioral sensitization and naloxone-precipitated withdrawal symptoms in morphine-dependent mice.

Citation: Neuropharmacology, Feb 2016, vol. 101, p. 246-254, 0028-3908 (Feb 2016)

Author(s): Zhang, Gongliang; Wu, Xian; Zhang, Yong-Mei; Liu, Huan; Jiang, Qin; Pang, Gang; Tao, Xinrong; Dong, Liuyi; Stackman, Robert W., Jr.

Abstract: Opioid abuse and dependence have evolved into an international epidemic as a significant clinical and societal problem with devastating consequences. Repeated exposure to the opioid, for example morphine, can induce profound, long-lasting behavioral sensitization and physical dependence, which are thought to reflect neuroplasticity in neural circuitry. Central serotonin (5-HT) neurotransmission participates in the development of dependence on and the expression of withdrawal from morphine. Serotonin 5-HT2C receptor (5-HT2CR) agonists suppress psychostimulant nicotine or cocaine-induced behavioral sensitization and drug-seeking behavior; however, the impact of 5-HT2CR agonists on behaviors relevant to opioid abuse and dependence has not been reported. In the present study, the effects of 5-HT2CR activation on the behavioral sensitization and naloxone-precipitated withdrawal symptoms were examined in mice underwent repeated exposure to morphine. Male mice received morphine (10 mg/kg, s.c.) to develop behavioral sensitization. Lorcaserin, a 5-HT2CR agonist, prevented the induction and expression, but not the development, of morphine-induced behavioral sensitization. Another cohort of mice received increasing doses of morphine over a 7-day period to induce morphine-dependence. Pretreatment of lorcaserin, or the positive control clonidine (an alpha 2-adrenoceptor agonist), ameliorated the naloxone-precipitated withdrawal symptoms. SB 242084, a selective 5-HT2CR antagonist, prevented the lorcaserin-mediated suppression of behavioral sensitization and withdrawal. Chronic morphine treatment was associated with an increase in the expression of 5-HT2CR protein in the ventral tegmental area, locus coeruleus and nucleus accumbens. These findings suggest that 5-HT2CR can modulate behavioral sensitization and withdrawal in morphine-dependent mice, and the activation of 5-HT2CR may represent a new avenue for the treatment of opioid addiction. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings:
Naloxone
Side Effects (Drug)
Drug Sensitivity
Serotonin
Neurotransmission
Morphine
Mice

Source: PsycInfo

28. Social isolation rearing increases dopamine uptake and psychostimulant potency in the striatum.

Citation: Neuropharmacology, Feb 2016, vol. 101, p. 471-479, 0028-3908 (Feb 2016)

Author(s): Yorgason, Jordan T.; Calipari, Erin S.; Ferris, Mark J.; Karkhanis, Anushree N.; Fordahl, Steven C.; Weiner, Jeffrey L.; Jones, Sara R.

Abstract: Social isolation rearing (SI) is a model of early life stress that results in neurobiological alterations leading to increased anxiety-like behaviors. These animals also exhibit an increased propensity to administer psychostimulants, such as cocaine; however, the mechanisms governing this increased addiction vulnerability remain to be elucidated. Long-term stressors have been shown to produce important alterations in nucleus accumbens core (NAc) function. The NAc regulates motivated and goal-directed behaviors, and individual differences in NAc function have been shown to be predictive of addiction vulnerability. Rats were reared in group (GH; 4/cage) or SI (1/cage) conditions from weaning (PD 28) into early adulthood (PD 77) and dopamine release was assessed using voltammetry in brain slices containing the NAc and dorsomedial striatum. SI rats exhibited enhanced dopamine release and uptake in both regions compared to GH

rats. In regard to psychostimulant effects directly at the dopamine transporter (DAT), methylphenidate and amphetamine, but not cocaine, inhibited uptake more in SI than GH rats. The increased potencies were positively correlated with uptake rates, suggesting that increased potencies of amphetamine-like compounds are due to changes in DAT function. Cocaine's effects on uptake were similar between rearing conditions, however, cocaine enhanced evoked dopamine release greater in SI than GH rats, suggesting that the enhanced cocaine reinforcement in SI animals involves a DAT independent mechanism. Together, the results provide the first evidence that greater psychostimulant effects in SI compared to GH rats are due to effects on dopamine terminals related to uptake dependent and independent mechanisms. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings: Nucleus Accumbens
Striatum
Social Isolation
Dopamine

Source: PsycInfo

29. CaMKII inhibition in the prefrontal cortex specifically increases the positive reinforcing effects of sweetened alcohol in C57BL/6J mice.

Citation: Behavioural Brain Research, Feb 2016, vol. 298, no. Part B, p. 286-290, 0166-4328 (Feb 1, 2016)

Author(s): Faccidomo, Sara; Reid, Grant T.; Agoglia, Abigail E.; Ademola, Sherifat A.; Hodge, Clyde W.

Abstract: Ca2+/calmodulin-dependent protein kinase II (CaMKII) is a multifunctional enzyme that is required for synaptic plasticity and has been proposed to be a primary molecular component of the etiology of alcohol addiction. Chronic alcohol intake upregulates CaMKIIα protein expression in reward-related brain regions including the amygdala and nucleus accumbens, and CaMKIIα activity in the amygdala is required for the positive reinforcing effects of alcohol, suggesting this system promotes consumption in the early stages of alcohol addiction. Alternatively, the medial prefrontal cortex (mPFC) is known to inhibit limbic activity via CaMKII-dependent excitatory projections and may, therefore, enable top-down regulation of motivation. Here we sought to remove that regulatory control by site-specifically inhibiting CaMKII activity in the mPFC, and measured effects on the positive reinforcing effects of sweetened alcohol in C57BL/6J mice. Infusion of the CAMKII inhibitor KN-93 (0–10.0 μg) in the mPFC primarily increased alcohol+sucrose reinforced response rate in a dose- and time-dependent manner. KN-93 infusion reduced response rate in behavior-matched sucrose-only controls. Importantly, potentiation of operant responding for sweetened alcohol occurred immediately after infusion, at a time during which effects on sucrose responding were not observed, and persisted through the session. These results suggest that endogenous CaMKII activity in the mPFC exerts inhibitory control over the positive reinforcing effects of alcohol. Downregulation of CaMKII signaling in the mPFC might contribute to escalated alcohol use. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings: Prefrontal Cortex
Synaptic Plasticity
Calcium
Kinases
Mice
Alcohols
Amygdala

Source: PsycInfo

30. Ghrelin and endocannabinoids participation in morphine-induced effects in the rat nucleus accumbens.

Citation: Psychopharmacology, Feb 2016, vol. 233, no. 3, p. 469-484, 0033-3158 (Feb 2016)

Author(s): Sustkova-Fiserova, Magdalena; Jerabek, Pavel; Havlickova, Tereza; Syslova, Kamila; Kacer, Petr

Abstract: Rationale and objectives: In addition to dopamine, endocannabinoids are thought to participate in neural reward mechanisms of opioids. Number of recent studies suggests crucial involvement of ghrelin in some addictive drugs effects. Our previous results showed that ghrelin participates in morphine-induced changes in the mesolimbic dopaminergic system associated with reward processing. The goal of the present study was to test whether the growth hormone secretagogue receptor (GHS-R1A) antagonist JMV2959 was able to influence morphine-induced effects on anandamide (N-arachidonoylethanolamine, AEA) and 2-arachidonoylglycerol (2-AG) in the nucleus accumbens shell (NACSh). Methods: We used in vivo microdialysis to determine changes in levels of AEA and 2-AG in the NACSh in rats following (i) an acute morphine dose (5, 10 mg/kg s.c.) with and without JMV2959 pretreatment (3, 6 mg/kg i.p.) or (ii) a morphine challenge dose (5 mg/kg s.c.) with and without JMV2959 (3, 6 mg/kg i.p.) pretreatment, administered during abstinence following repeated doses of morphine (5 days, 10–40 mg/kg). Co-administration of ghrelin (40 ug/kg i.p.) was used to verify the ghrelin mechanisms involvement. Results: Pretreatment with JMV2959 significantly and dose-dependently reversed morphine-induced anandamide increases in the NACSh in both the acute and longer-term models, resulting in a significant AEA decrease. JMV2959 significantly intensified acute morphine-induced decreases in accumbens 2-AG levels and attenuated morphine challenge-induced 2-AG decreases. JMV2959 pretreatment significantly reduced concurrent morphine challenge-induced behavioral sensitization. JMV2959 pretreatment effects were abolished by co-administration of ghrelin. Conclusions: Our results indicate significant involvement of ghrelin signaling in morphine-induced endocannabinoid changes in the NACSh. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings:
Nucleus Accumbens
Ghrelin
Morphine
Rats
Dopamine

Source: PsycInfo

31. Sex differences in a rat model of risky decision making.

Citation: Behavioral Neuroscience, Feb 2016, vol. 130, no. 1, p. 50-61, 0735-7044 (Feb 2016)

Author(s): Orsini, Caitlin A.; Willis, Markie L.; Gilbert, Ryan J.; Bizon, Jennifer L.; Setlow, Barry

Abstract: Many debilitating psychiatric conditions, including drug addiction, are characterized by poor decision making and maladaptive risk-taking. Recent research has begun to probe this relationship to determine how brain mechanisms mediating risk-taking become compromised after chronic drug use. Currently, however, the majority of work in this field has used male subjects. Given the well-established sex differences in drug addiction, it is conceivable that such differences are also evident in risk-based decision making. To test this possibility, male and female adult rats were trained in a risky decision making task (RDT), in which they chose between a small, “safe” food reward and a large, “risky” food reward accompanied by an increasing probability of mild footshock punishment. Consistent with findings in human subjects, females were more risk averse, choosing the large, risky reward significantly less than males. This effect was not due to differences in shock reactivity or body weight, and risk-taking in females was not modulated by estrous phase. Systemic amphetamine administration decreased risk-taking in both males and females; however, females exhibited greater sensitivity to amphetamine, suggesting that dopaminergic signaling may partially account for sex differences in risk-taking. Finally, although males displayed greater instrumental responding for food reward, reward choice in the RDT was not affected by satiation, indicating that differences in motivation to obtain food reward cannot fully account for sex differences in risk-taking. These results should prove useful for developing targeted treatments for psychiatric conditions in which risk-taking is altered and that are known to differentially affect males and females. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings: Rewards
Rats
Animal Sex Differences
Animal Models
Risk Taking
Decision Making

Source: PsycInfo

Full Text: Available from *ProQuest* in *Behavioral Neuroscience*

32. Differential roles of GABAB1 subunit isoforms on locomotor responses to acute and repeated administration of cocaine.

Citation: Behavioural Brain Research, Feb 2016, vol. 298, no. Part B, p. 12-16, 0166-4328 (Feb 1, 2016)

Author(s): Jacobson, Laura H.; Sweeney, Fabian F.; Kaupmann, Klemens; O'Leary, Olivia F.; Gassmann, Martin; Bettler, Bernhard; Cryan, John F.

Abstract: GABAB receptors are crucial modulators of the behavioural effects of drug abuse, and agonists and positive allosteric modulators show promise as pharmacological strategies for anti-addiction therapeutics. GABAB receptors are functional heterodimers of GABAB1 and GABAB2 subunits. The predominant neuronal GABAB1 subunit isoforms are GABAB1a and GABAB1b. Selective ablation of these isoforms in mice revealed differential behavioural responses in fear, cognition and stress sensitivity. However, the influence of the two GABAB1 isoforms on responses to drugs of abuse is unclear. Therefore we examined the responses of GABAB1 subunit isoform null mice to cocaine in acute locomotor activity and conditioned place preference (CPP) paradigms. During habituation for the acute locomotor activity assay, GABAB1b −/− mice showed higher levels of locomotor activity relative to wild-type (WT) and GABAB1a −/− mice, in accordance with previous studies. Acute cocaine (10 mg/kg) increased locomotor activity in habituated mice of all three genotypes, with GABAB1a −/− mice showing sustained hyperlocomotor responses 30 min after cocaine relative to WT and GABAB1b −/− mice. No genotypes demonstrated a cocaine-induced place preference, however, GABAB1a −/− mice demonstrated enhanced locomotor sensitisation to chronic cocaine in the CPP paradigm in comparison to WT mice, whereas GABAB1b −/− mice failed to develop locomotor sensitisation, despite higher levels of basal locomotor activity. These findings indicate that GABAB1a and GABAB1b isoforms differentially regulate behavioural responses to cocaine, with deletion of GABAB1a enhancing cocaine-induced locomotor activity and deletion of GABAB1b protecting from cocaine-induced sensitisation. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings: Gamma Aminobutyric Acid
Place Conditioning
Animal Locomotion
Mice
Cocaine
Drug Administration Methods

Source: PsycInfo

33. Cocaine-conditioned place preference is predicted by previous anxiety-like behavior and is related to an increased number of neurons in the basolateral amygdala.

Citation: Behavioural Brain Research, Feb 2016, vol. 298, no. Part B, p. 35-43, 0166-4328 (Feb 1, 2016)

Author(s): de Guevara-Miranda, David Ladrón; Pavón, Francisco J.; Serrano, Antonia; Rivera, Patricia; Estivill-Torrús, Guillermo; Suárez, Juan; de Fonseca, Fernando Rodríguez; Santín, Luis J.; Castilla-Ortega, Estela

Abstract: The identification of behavioral traits that could predict an individual's susceptibility to engage in cocaine addiction is relevant for understanding and preventing this disorder, but investigations of cocaine addicts rarely allow us to determinate whether their behavioral

attributes are a cause or a consequence of drug use. To study the behaviors that predict cocaine vulnerability, male C57BL/6J mice were examined in a battery of tests (the elevated plus maze, hole-board, novelty preference in the Y-Maze, episodic-like object recognition and forced swimming) prior to training in a cocaine-conditioned place preference (CPP) paradigm to assess the reinforcing value of the drug. In a second study, the anatomical basis of high and low CPP in the mouse brain was investigated by studying the number of neurons (neuronal nuclei-positive) in two addiction-related limbic regions (the medial prefrontal cortex and the basolateral amygdala) and the number of dopaminergic neurons (tyrosine hydroxylase-positive) in the ventral tegmental area by immunohistochemistry and stereology. Correlational analyses revealed that CPP behavior was successfully predicted by anxiety-like measures in the elevated plus maze (i.e., the more anxious mice showed more preference for the cocaine-paired compartment) but not by the other behaviors analyzed. In addition, increased numbers of neurons were found in the basolateral amygdala of the high CPP mice, a key brain center for anxiety and fear responses. The results support the theory that anxiety is a relevant factor for cocaine vulnerability, and the basolateral amygdala is a potential neurobiological substrate where both anxiety and cocaine vulnerability could overlap. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings:
Anxiety
Side Effects (Drug)
Place Conditioning
Neurons
Drug Therapy
Mice
Cocaine
Amygdala

Source: PsycInfo

34. Cannabidiol disrupts the reconsolidation of contextual drug□ associated memories in wistar rats.

Citation: Addiction Biology, Feb 2016, (Feb 1, 2016), 1355-6215 (Feb 1, 2016)

Author(s): Carvalho, Cristiane Ribeiro; Takahashi, Reinaldo Naoto

Abstract: In addicts, craving and relapse are frequently induced by the recall of memories related to a drug experience. Several studies have demonstrated that drug□ related memories are reactivated after exposure to environmental cues and may undergo reconsolidation, a process that can strengthen memories. Thus, reactivation of mnemonic traces provides an opportunity for disrupting memories that contribute to the pathological cycle of addiction. Here we used drug□ induced conditioned place preference (CPP) to investigate whether cannabidiol (CBD), a phytocannabinoid, given just after reactivation sessions, would affect reconsolidation of drug□ reward memory, reinstatement of morphine□ CPP, or conditioned place aversion precipitated by naltrexone in Wistar rats. We found that CBD impaired the reconsolidation of preference for the environment previously paired with both morphine and cocaine. This disruption seems to be persistent, as the preference did not return after further reinstatement induced by priming drug and stress reinstatement. Moreover, in an established morphine□ CPP, an injection of CBD after the exposure to a conditioning session led to a significant reduction of both morphine□ CPP and subsequent conditioned place aversion precipitated by naltrexone in the same context. Thus, established memories induced by a drug of abuse can be blocked after reactivation of the drug experience. Taken together, these results provide evidence for the disruptive effect of CBD on reconsolidation of contextual drug□ related memories and highlight its therapeutic potential to attenuate contextual memories associated with drugs of abuse and consequently to reduce the risk of relapse. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings: No terms assigned

Source: PsycInfo

Full Text: Available from *Wiley* in *Addiction Biology*

35. Exposure to and Engagement With Gambling Marketing in Social Media: Reported Impacts on Moderate-Risk and Problem Gamblers.

Citation: Psychology of Addictive Behaviors, Feb 2016, (Feb 1, 2016), 0893-164X (Feb 1, 2016)

Author(s): Gainsbury, Sally M.; King, Daniel L.; Russell, Alex M. T.; Delfabbro, Paul; Derevensky, Jeffrey; Hing, Nerilee

Abstract: Digital advertising for gambling and specifically marketing via social media have increased in recent years, and the impact on vulnerable consumers, including moderate-risk and problem gamblers, is unknown. Social media promotions often fall outside of advertising restrictions and codes of conduct and may have an inequitable effect on susceptible gamblers. This study aimed to investigate recall of exposure to, and reported impact on gamblers of, gambling promotions and marketing content on social media, with a focus on vulnerable users currently experiencing gambling problems. Gamblers who use social media (N = 964) completed an online survey assessing their exposure to and engagement with gambling operators on social media, their problem gambling severity, and the impact of social media promotions on their gambling. Gamblers at moderate risk and problem gamblers were significantly more likely to report having been exposed to social media gambling promotions and indicated actively engaging with gambling operators via these platforms. They were more likely to self-report that they had increased gambling as a result of these promotions, and over one third reported that the promotions had increased their problems. This research suggests that gamblers at moderate risk or those experiencing gambling problems are more likely to be impacted by social media promotions, and these may play a role in exacerbating disordered gambling. Future research should verify these self-reported results with behavioral data. However, the potential influence of advertisements via these new platforms should be considered by clinicians and policymakers, given their potential role in the formation of this behavioral addiction. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings: No terms assigned

Source: PsycInfo

Full Text: Available from *ProQuest* in *Psychology of Addictive Behaviors*

36. Interaction between handling induced stress and anxiolytic effects of ethanol in zebrafish: A behavioral and neurochemical analysis.

Citation: Behavioural Brain Research, Feb 2016, vol. 298, no. Part B, p. 278-285, 0166-4328 (Feb 1, 2016)

Author(s): Tran, Steven; Nowicki, Magda; Fulcher, Niveen; Chatterjee, Diptendu; Gerlai, Robert

Abstract: Stress is often considered an important factor in the development of alcohol addiction. In rodents, various types of stressors have been shown to potentiate the effects of alcohol on behavioral responses, and to increase consumption of this substance. However, few have investigated the interaction between stress and alcohol in zebrafish. In the current study we present a repeated handling stress paradigm we developed for zebrafish, and examine whether stress alters alcohol induced behavioral and neurochemical responses. Our results show that repeated handling of zebrafish conducted for 2 consecutive days is sufficient to increase anxiety-like behavioral responses quantified 24h post-stressor. Repeatedly handled zebrafish also exhibited a reduction in the levels of serotonin's metabolite, 5-hydroxyindole acetic acid (quantified by high precision liquid chromatography) compared to unhandled controls. A 60-min acute exposure to 1% ethanol was found to significantly increase locomotor activity and decrease anxiety-like behavioral responses in stressed zebrafish but not in controls. Furthermore, unhandled control zebrafish exhibited a significant increase in whole-brain dopamine levels following exposure to ethanol but the increase was not observed in repeatedly handled fish. Our findings suggest that ethanol induced locomotor activity and anxiolysis is potentiated by handling stress and may be partially mediated by changes in dopaminergic and serotonergic activity. Overall, we demonstrate the validity of our repeated handling stressor paradigm for

zebrafish, which can be used to investigate the interaction between stress and ethanol. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings: Animal Ethology
Fishes
Stress
Ethanol

Source: PsycInfo

37. Smoking reduction and quality of life in chronic patients with schizophrenia in a chinese population: A pilot study.

Citation: The American Journal on Addictions, Jan 2016, (Jan 29, 2016), 1055-0496 (Jan 29, 2016)

Author(s): Deng, Huiqiong; Wang, Jia; Zhang, Xiangyang; Ma, Mengying; Domingo, Coreen; Sun, Hongqiang; Kosten, Thomas

Abstract: Background and Objectives Tobacco use is a significant public health issue on a global scale. Prevalence of daily tobacco smoking for men in China is much higher than in the United States. Although prevailing literature suggests a negative relationship between smoking and quality of life, this pilot study sought to evaluate whether smoking reduction/cessation impacted on the perception of quality of life in an in□ patient population in China. Methods Twenty Chinese patients meeting DSM□ IV criteria for schizophrenia were recruited from Beijing Hui□ Long□ Guan Hospital, an in□ patient facility in Beijing, China, for participation in this 4□ week study. Seventeen participants with schizophrenia completed the study and were included in the final analysis. Cigarette consumption was recorded daily and the World Health Organization Quality of Life□ BREF (WHOQOL□ BREF) was completed at baseline and at week 4. The relationships between smoking and perceived quality of life were evaluated using correlations between changes in WHOQOL□ BREF and changes in cigarettes consumed as measured from baseline to week 4. Results We found an increase in perceived quality of life in the social relationships domain with increased cigarette consumption in contrast to a decrease in this domain with decreased consumption. However, decreased cigarette consumption was associated with an increase in the psychological domain compared to the social domain. Conclusions and Scientific Significance These associations suggest a need for interventions to improve the social relationship perceptions with any successful reduction in cigarette consumption among Chinese schizophrenics in order to match their perceived psychological improvement. (Am J Addict 2016;XX:1–5) (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

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38. Alcohol□ related injuries, hazardous drinking, and brac levels among a sample of bar patrons.

Citation: The American Journal on Addictions, Jan 2016, (Jan 29, 2016), 1055-0496 (Jan 29, 2016)

Author(s): Martin, Ryan J.; Brechbiel, Kerry; Chaney, Beth H.; Cremeens□ Matthews, Jennifer; Vail□ Smith, Karen

Abstract: Background Alcohol□ related injuries are a serious public health issue and research has found that alcohol consumption is positively correlated with injury risk. Objective To better understand the association between alcohol consumption and injury risk. Methods We conducted four anonymous cross□ sectional field studies among a sample of bar patrons (N = 917) to assess breath alcohol concentration (BrAC) levels, hazardous drinking levels (based on AUDIT□ C score), and past year alcohol□ related injuries in Fall 2014. Next, we conducted two logistic regression analyses to predict alcohol□ related injuries: one model used hazardous drinking level as a predictor variable and the other model used BrAC. Results Among participants in our sample, the average BrAC% was .076 (SD =.055) and the average hazardous drinking score (based on the AUDIT□ C) was 5.0 (SD = 2.6). The majority of participants indicated that they had not experienced an alcohol□ related injury in the past year (859; 93.7%). Our regression

analyses found that each incremental increase in a participants' hazardous drinking score increased the odds of experiencing a self□ reported alcohol□ related injury by 1.4 times and as BrAC increased one unit of change (percentage), the odds of a past□ year alcohol related injury increased twofold (OR = 2.2). Other covariates (ie, age, gender, race, college student status) did not significantly predict alcohol□ related injuries in either model. Discussion and Conclusions High□ risk drinking behaviors, including higher BrAC levels, greatly influenced experiencing an alcohol□ related injury. Scientific Significance This is the first examination of BrAC levels and alcohol□ related injuries in a primarily college student sample. (Am J Addict 2016;XX:1–6) (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

Subject Headings: No terms assigned

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39. Degree of correspondence between daily monitoring and retrospective recall of alcohol use among men and women with comorbid aud and ptsd.

Citation: The American Journal on Addictions, Jan 2016, (Jan 29, 2016), 1055-0496 (Jan 29, 2016)

Author(s): Krenek, Marketa; Lyons, Robert; Simpson, Tracy L.

Abstract: Background and Objectives The majority of studies that have identified good correspondence between daily monitoring and retrospective recall of alcohol use have included participants who are relatively stable, are moderate drinkers, report abstinence, and are not diagnosed with comorbid disorders. The current study examined degree of correspondence between alcohol use that was reported daily via interactive voice response (IVR) telephone monitoring and retrospectively using an abbreviated Form□ 90 (Form□ 35) covering the same 35□ day time period. Methods Participants were 54 men and women with comorbid alcohol dependence and posttraumatic stress disorder (PTSD) who reported drinking during the time period. Results Results indicated that participants reported more drinking days via IVR. Correspondence was strong between the reporting methods for aggregate□ level alcohol use variables, including presence/absence of drinking days and heavy drinking days and standard drinks, and associations increased for weeks closer to the assessment date for drinking days and heavy drinking days. Day□ to□ day agreement was moderate for drinking days and heavy drinking days, though there was large between□ person variability in correspondence between reporting methods. Post□ hoc analyzes suggested that men and participants who drink more tend to have lower correspondence between assessment methods. Discussion and Conclusions Overall, findings partially replicated previous research and extend our knowledge of alcohol assessment in a comorbid sample. Scientific Significance Findings highlight the importance of considering the influence that moderating variables have on reporting of alcohol use. (Am J Addict 2016;XX:1–7) (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

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40. Physical activity, psychiatric distress, and interest in exercise group participation among individuals seeking methadone maintenance treatment with and without chronic pain.

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Author(s): Beitel, Mark; Stults□ Kolehmainen, Matthew; Cutter, Christopher J.; Schottenfeld, Richard S.; Eggert, Kathy; Madden, Lynn M.; Kerns, Robert D.; Liong, Christopher; Ginn, Joel; Barry, Declan T.

Abstract: Background and Objectives Physical activity may improve chronic pain, anxiety, and depression, which are prevalent among patients in methadone maintenance treatment (MMT), but relatively little is known about the physical activity levels or interest in exercise of patients in MMT. Methods We used a brief self□ report instrument to assess

physical activity levels, chronic pain, psychiatric distress, and interest in exercise group participation among 303 adults seeking MMT. Results Most (73%) reported no moderate or vigorous intensity physical activity in the past week; 27% met recommended physical activity levels, and 24% reported interest in exercise group participation. Participants with (compared to those without) chronic pain had higher levels of psychiatric distress and were less likely to meet recommended levels of physical activity ($p < .05$), but did not differ significantly in their interest in participating in an exercise group. Participants who met recommended levels of physical activity in the past week were more likely to be men and had lower levels of depression than others ($p < .05$). Conclusions and Scientific Significance Low levels of physical activity and low interest in exercise group participation among patients entering MMT point to the need for and likely challenges of implementing exercise interventions in MMT. (Am J Addict 2016;XX:1–7) (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract)

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