

## **Non-substance-addictive behaviors in youth: Pathological gambling and problematic internet use.**

Brezing C; Derevensky JL; Potenza MN. *Child and Adolescent Psychiatric Clinics of North America* 19(3): 625-+, 2010. (130 refs.)

Adolescence is characterized by participation in multiple novel and potentially risky behaviors. Amongst these behaviors are gambling and use of the Internet, and excessive engagement in these activities (as seen in pathological gambling and problematic Internet use) may be accompanied by serious impairments in school, mental health, and social functioning. This article reviews the potential impact of pathological gambling and problematic Internet use in youth, the relevance of subsyndromal levels of participation, and how prevention and treatment strategies may be considered and tested within a developmental framework. Copyright 2010, W B Saunders/Elsevier Science.

## **Smoking expectancies, weight concerns, and dietary behaviors in adolescence.**

Cavallo DA; Smith AE; Schepis TS; Desai R; Potenza MN; Krishnan-Sarin S. *Pediatrics* 126(1): E66-E72, 2010. (23 refs.)

**OBJECTIVE:** The objective of this study was to examine the association of cigarette smoking and weight concerns in adolescents, given that adolescents may begin smoking or have difficulty quitting because of their expectancies of the effects of smoking on body weight. **METHODS:** This study used data from a cross-sectional survey of 4523 Connecticut high school adolescents to assess the influence of gender, smoking intensity, and dietary-restrictive behavior on smoking-related weight concerns. **RESULTS:** Heavy smokers were significantly less likely to engage in healthy dietary restrictions than nonsmokers; however, light smokers did not differ from nonsmokers. Both light and heavy smokers were significantly more likely to engage in unhealthy dietary restriction when compared with nonsmokers. In the model that was used to examine smokers only, heavy smokers were significantly less likely to engage in healthy dietary restriction than light smokers, but smoking level was not associated with unhealthy dietary restrictions.

Dietary restrictions are significantly associated with smoking-related weight concerns; however, this seems to be related to type of dietary-restrictive behavior, with greater weight concerns observed only in those smokers who engaged in unhealthy dietary restrictions and not in those who engaged in healthy dietary restrictions or no restrictions. **CONCLUSIONS:** Although limited by its cross-sectional nature, the findings from this large, geographically diverse sample have clinical implications for smoking prevention and cessation interventions in adolescents. Copyright 2010, American Academy of Pediatrics.

## **The relationship between alcohol supply source and Early course of nicotine dependence in adolescent smokers.**

Doubeni CA; Reed G; DiFranza JR. *Pediatrics* 125(6): 1127-1133, 2010. (32 refs.)

**OBJECTIVE:** The goal was to characterize the early course of nicotine dependence. **METHODS:** Data were collected from 1246 sixth-graders in a 4-year (2002-2006) prospective study using 11 individual interviews. Subjects were monitored for 10 symptoms of dependence by using the Hooked on Nicotine Checklist. The bidirectional prospective relationship between the intensity of dependence (number of symptoms) and smoking frequency was examined by using cross-lagged analyses. **RESULTS:** Of the 370 subjects who had inhaled from a cigarette, 62% smoked at least once per month, 53% experienced dependence symptoms, and 40% experienced escalation to daily smoking. Smoking frequency predicted the number of dependence symptoms at the next interview, and the number of symptoms predicted reciprocally the observed escalation in smoking frequency. Monthly smoking was a strong risk factor for the development of symptoms (adjusted hazard ratio: 9.9 [95% confidence interval: 6.6-14.8]). A strong desire to smoke was the most common presenting symptom, typically followed by the appearance of symptoms of nicotine withdrawal, escalation to daily smoking, and then reports of feeling addicted or difficulty controlling smoking. The appearance of any dependence symptom increased the risk for daily smoking (hazard ratio: 6.81 [95% confidence interval: 4.4-10.5]). **CONCLUSIONS:**

Nondaily tobacco use triggers the emergence of nicotine dependence. Early dependence symptoms promote escalation in smoking frequency and, reciprocally, more-frequent smoking accelerates the appearance of additional symptoms of dependence. As this positive feedback progresses, the symptoms of nicotine dependence present in a typical sequence, with some individual variation. Copyright 2010, American Academy of Pediatrics.

**Attention-Deficit/Hyperactivity Disorder confounds nicotine withdrawal self-report in adolescent smokers.**

Gray KM; Baker NL; Carpenter MJ; Lewis AL; Upadhyaya HP. *American Journal on Addictions* 19(4): 325-331, 2010. (32 refs.)

Individuals with attention-deficit/hyperactivity disorder (ADHD) are more likely than those without ADHD to initiate smoking and develop nicotine dependence. Recent research indicates that adults with ADHD experience more severe nicotine withdrawal symptoms than those without ADHD. However, little is known about nicotine withdrawal in adolescent smokers with history of ADHD. Among a sample of 134 nicotine-dependent adolescents entering a smoking cessation research study, participants completed the Minnesota Nicotine Withdrawal Scale (MNWS) and lifetime diagnostic assessment for ADHD during the baseline visit. Responses on individual items and MNWS total score were compared between participants with and without history of ADHD. In addition, correlations between MNWS responses and current ADHD symptoms were investigated among participants with history of ADHD. Forty-eight participants (36%) met lifetime ADHD criteria. Adolescent smokers with history of ADHD scored significantly higher on MNWS than those without history of ADHD. Among participants with history of ADHD, responses on the MNWS difficulty concentrating, restlessness/impatience, and anxiety/nervousness items each correlated positively with several current ADHD symptoms. Treatment-seeking adolescent smokers with history of ADHD are more likely to endorse nicotine withdrawal symptoms than those without history of ADHD. However, it does not appear that the symptoms reported in this sample represent a valid "withdrawal syndrome," particularly because these smokers had not yet formally attempted to quit. Rather, the data likely reflect common features between ADHD and nicotine withdrawal. Smoking research, particularly among adolescents in whom ADHD is so common, should carefully consider the

complex issue of comorbid ADHD and nicotine dependence. Copyright 2010, Wiley-Blackwell.

**Sports doping in the adolescent: The Faustian conundrum of hors de combat.**

Greydanus DE; Patel DR. *Pediatric Clinics of North America* 57(3): 729-750, 2010. (128 refs.)

The drive toward success in sports and the need for a cosmetically acceptable appearance have driven many adolescents to take a wide variety of so-called doping substances. The consumption of these chemicals in the hope and hype of improved sports performance, fueled by the easing of government restrictions on their proof of safety and efficacy, has resulted in an explosion of so-called ergogenic products available to our youth. Agents that have been used include anabolic steroids, anabolic-like agents, designer steroids, creatine, protein and amino acid supplements, minerals, antioxidants, stimulants, blood doping, erythropoietin, beta-blockers, and others. The use of these agents has considerable potential to cause physical and psychological damage. Use and misuse of drugs in this sports doping process should be discouraged. This discussion reviews some of the agents that are currently being used. Clinicians providing sports medicine care to youth, whether through anticipatory guidance or direct sports medicine management, should educate their young patients about the hype and hyperbole of these products that may keep them out instead of in the game at considerable financial cost to the unwary consumer. Copyright 2010, W B Saunders/Elsevier Science.

**Problematic use of energy drinks by adolescents.**

Kaminer Y. *Child and Adolescent Psychiatric Clinics of North America* 19(3): 643+, 2010. (38 refs.)

Energy drinks (EDs) are caffeine-based beverages that commonly contain large doses of sugar, carbohydrates, and a variety of legal stimulants and supplements, such as guarana, taurine, ginseng, and vitamin B complex. These drinks are marketed for young people as natural alternatives that increase fun and improve physical and cognitive performance such as concentration, attention, and alertness. There are commonly held false perceptions that the consumption of EDs can reverse alcohol-related impairment, including motor coordination and visual reaction time, which are crucial for driving safety. This article reviews the literature on EDs and examines problematic use and potential negative consequences in young people. Special emphasis is devoted to safety concerns following combination of EDs with alcohol, which gives the user a false sense of control. Copyright 2010, W B Saunders/Elsevier Science.

**Can 12-step group participation strengthen and extend the benefits of adolescent addiction treatment? A prospective analysis.**

Kelly JF; Dow SJ; Yeterian JD; Kahler CW. *Drug and Alcohol Dependence* 110(1-2): 117-125, 2010. (47 refs.)

Background: Despite advances in the development of treatments for adolescents with substance use disorders (SUD), relapse remains common following an index treatment episode. Community continuing care resources, such as Alcoholics Anonymous (AA) and Narcotics Anonymous (NA), have been shown to be helpful and cost-effective recovery resources among adults. However, little is known about the clinical utility and effectiveness of AA/NA for adolescents, despite widespread treatment referrals. Method: Adolescents (N=127; 24% female, 87% White, M age = 16.7 years) enrolled in a naturalistic, prospective study of community outpatient treatment were assessed at intake, and 3 and 6 months later using a battery of standardized and validated measures. Results: Just over one-quarter of youth attended AA/NA meetings during the first 3 months, which was predicted by a goal of abstinence, prior AA/NA attendance, and prior SOD treatment experiences. Controlled multiple regression analyses revealed an independent effect of AA/NA on abstinence, in both contemporaneous and lagged models, which persisted over and above the effects of pre-treatment AA/NA attendance, prior treatment, self-efficacy, abstinence goal, and concomitant outpatient treatment. Conclusions: Results suggest that, similar to findings comparing adult outpatients to inpatients, AA/NA participation is less common among less severe adolescent outpatients. Nonetheless, attendance appears to strengthen and extend the benefits of typical community outpatient treatment. Given the dramatic increase in rates of substance use among same-aged peers in the population at this life-stage, and the relative dearth of abstainers and recovery-specific supports, these resources may provide a concentrated cost-effective social recovery resource for young people. Copyright 2010, Elsevier Science.

**Trajectories of resilience over 25 years of individuals who as adolescents consulted for substance misuse and a matched comparison group**

Larm P; Hodgins S; Tengstrom A; Larsson A. *Addiction* 105(7): 1216-1225, 2010. (70 refs.)

Aims: To examine trajectories of resilience over 25 years among individuals who as adolescents received treatment for substance misuse, the clinical sample (CS) and a matched general population sample (GP).

Design: Comparison of the CS and GP over 25 years using Swedish national registers of health care and criminality. Setting: A substance misuse clinic for adolescents in an urban area in Sweden. Measurements: Resilience was defined as the absence of substance misuse, hospitalizations for physical illnesses related to substance misuse, hospitalization for mental illness and law-abiding behaviour from ages 21 to 45 years. Participants: The CS included 701 individuals who as adolescents had consulted a clinic for substance misuse. The GP included 731 individuals selected randomly from the Swedish population and matched for age, sex and birthplace. Findings: A total of 52.4% of the GP and 24.4% of the CS achieved resilience in all domains through 25 years. Among the CS, another one-third initially displayed moderate levels of resilience that rose to high levels over time, one-quarter displayed decreasing levels of resilience over time, while 9.3% showed little but improving resilience and 8.8% showed no resilience. Levels of resilience were associated with the severity of substance misuse and delinquency in adolescence. Conclusions: Individuals who had presented substance misuse problems in adolescence were less likely to achieve resilience over the subsequent 25 years than was a matched general population sample, and among them, four distinct trajectories of resilience were identified. The severity and type of problems presented in adolescence distinguished the four trajectories. Copyright 2010, Wiley-Blackwell.

**Peer influence and selection effects on adolescent smoking.**

Go MH; Green HD; Kennedy DP; Pollard M; Tucker JS. *Drug and Alcohol Dependence* 109(1-3): 239-242, 2010. (18 refs.)

Background: Studies showing that adolescents are more likely to smoke if they have friends who smoke typically infer that this is the result of peer influence. However, it may also be due to adolescents choosing friends who have smoking behaviors similar to their own (i.e., selection). One of the most influential studies of influence and selection effects on smoking concluded that these processes contribute about equally to peer group homogeneity in adolescent smoking (Ennett and Bauman, 1994). The goal of this study was to conduct a partial replication of these findings. Methods: Data are from 1223 participants in the National Longitudinal Study of Adolescent Health. Spectral decomposition techniques identified friendship cliques, which were then used as the unit of analysis to examine influence and selection effects over a one-year period. Results: Non-smokers were

more likely to become smokers if they initially belonged to a smoking (vs. non-smoking) group, and smokers were more likely to become non-smokers if they initially belonged to a non-smoking (vs. smoking) group, indicating an influence effect on both initiation and cessation. Further, group members who changed groups between waves were more likely to select groups with smoking behavior congruent to their own, providing evidence of a selection effect. Conclusions: While our results generally replicate the group analyses reported by Ennett and Bauman (1994), they suggest that peer influence and selection effects on adolescent smoking may be much weaker than assumed based on this earlier research. Copyright 2010, Elsevier Science.

### **Epidemiologic trends of adolescent use of alcohol, tobacco, and other drugs.**

Latimer W; Zur J. *Child and Adolescent Psychiatric Clinics of North America* 19(3): 451+, 2010. (34 refs.) This article provides an overview of drug and alcohol use and risk factors among American adolescents. Current trends indicate that tobacco, alcohol, and marijuana are the most frequently used substances among this age group. Further, the greatest risk factors for using these substances are being male, being White, being an older adolescent, engaging in sexual risk behaviors, having a family history of substance abuse, associating with peers who abuse substances, and lacking a sense of school commitment and connectedness. These findings underscore the need to involve communities, families, schools, and peer groups to effectively prevent and treat this problem. Copyright 2010, W B Saunders/Elsevier Science.

### **Genetic and environmental risk factors for adolescent-onset substance use disorders.**

Meyers JL; Dick DM. *Child and Adolescent Psychiatric Clinics of North America* 19(3): 465+, 2010. (62 refs.)

Substance dependence disorders are chronic relapsing disorders with immense societal consequences. Twin and family studies have found that there are critical genetic and environmental components in the inheritance of substance use disorders, and modern advances in genetics are making it possible to identify specific variants that may predispose an individual to these disorders. Adolescence is a crucial period for initiation, experimentation, and the establishment of more regular patterns of use of alcohol and other drugs. Adolescent substance use is a known risk factor for the development of later alcohol and substance use problems, as well as related externalizing disorders such as antisocial personality disorder. Understanding

the early risk factors and processes that make these youths vulnerable to substance use disorders is crucial to the development of effective strategies for prevention. This article reviews the genetic origins of adolescent substance use problems and the potential this field of research offers for prevention. Copyright 2010, W B Saunders/Elsevier Science.

### **A content analysis of displayed alcohol references on a social networking web site.**

Moreno MA; Briner LR; Williams A; Brockman L; Walker L; Christakis DA. *Journal of Adolescent Health* 47(2): 168-175, 2010. (40 refs.)

Purpose: Exposure to alcohol use in media is associated with adolescent alcohol use. Adolescents frequently display alcohol references on Internet media, such as social networking web sites. The purpose of this study was to conduct a theoretically based content analysis of older adolescents' displayed alcohol references on a social networking web site. Methods: We evaluated 400 randomly selected public MySpace profiles of self-reported 17- to 20-year-olds from zip codes, representing urban, suburban, and rural communities in one Washington county. Content was evaluated for alcohol references, suggesting: (1) explicit versus figurative alcohol use, (2) alcohol-related motivations, associations, and consequences, including references that met CRAFFT problem drinking criteria. We compared profiles from four target zip codes for prevalence and frequency of alcohol display. Results: Of 400 profiles, 225 (56.3%) contained 341 references to alcohol. Profile owners who displayed alcohol references were mostly male (54.2%) and white (70.7%). The most frequent reference category was explicit use (49.3%); the most commonly displayed alcohol use motivation was peer pressure (4.7%). Few references met CRAFFT problem drinking criteria (3.2%). There were no differences in prevalence or frequency of alcohol display among the four sociodemographic communities. Conclusions: Despite alcohol use being illegal and potentially stigmatizing in this population, explicit alcohol use is frequently referenced on adolescents' MySpace profiles across several sociodemographic communities. Motivations, associations, and consequences regarding alcohol use referenced on MySpace appear consistent with previous studies of adolescent alcohol use. These references may be a potent source of influence on adolescents, particularly given that they are created and displayed by peers. Copyright 2010, Elsevier Science.

**Multidimensional family therapy: Addressing co-occurring substance abuse and other problems among adolescents with comprehensive family-based treatment.**

Rowe CL. *Child and Adolescent Psychiatric Clinics of North America* 19(3): 563+, 2010. (61 refs.)

Adolescent substance abuse rarely occurs without other psychiatric and developmental problems, but it is often treated and researched as if it can be isolated from comorbid conditions. Few comprehensive interventions are available that effectively address the range of co-occurring problems associated with adolescent substance abuse. This article reviews the clinical interventions and research evidence supporting the use of Multidimensional Family Therapy (MDFT) for adolescents with substance abuse and co-occurring problems. MDFT is uniquely suited to address adolescent substance abuse and related disorders given its comprehensive interventions that systematically target the multiple interacting risk factors underlying many developmental disruptions of adolescence. Copyright 2010, W B Saunders/Elsevier Science.

**Pharmacotherapies for adolescent substance use disorders.**

Simkin DR; Grenoble S. *Child and Adolescent Psychiatric Clinics of North America* 19(3): 591-+, 2010. (116 refs.)

There is a paucity of research on pharmacotherapies in adolescents with substance use disorders. This paucity is partly because of the fact that most people with substance dependence do not get diagnosed until early adulthood, that is, after 18 years of age. This article reviews pharmacotherapies used for aversion, substitution, anti-craving, and detoxification of alcohol, nicotine, cocaine, and opioids dependence. Adult research is referenced when applicable and generalized to adolescents with caution. Continued evaluation and development of pharmacotherapy for youth in controlled studies are needed to examine medication effectiveness, safety, potential for abuse, compliance, and potential interactions with other medications or substances of abuse. Copyright 2010, W B Saunders/Elsevier Science.

**Access to treatment for adolescents with substance use and co-occurring disorders: Challenges and opportunities. (review).**

Sterling S; Weisner C; Hinman A; Parthasarathy S. *Journal of The American Academy of Child and Adolescent Psychiatry* 49(7): 637-646, 2010. (76 refs.)

Objective: To review the research on economic and systemic barriers faced by adolescents needing treatment for alcohol and drug problems, particularly those with co-occurring conditions. Method: We reviewed the literature on adolescent access to alcohol and drug services, including early intervention, and integrated and specialty mental health treatment for those with co-occurring disorders, examining the role of health care systems, public policy (health reform), treatment financing and reimbursement systems (public and private), implementation of evidence-based practices, confidentiality practices, and treatment costs and cost/benefits. Results: Barriers to treatment, particularly integrated treatment, are largely rooted in our organizationally fragmented health care system, which encompasses public and private, carved-out and integrated systems, and different funding mechanisms (Medicaid versus block grants versus private insurance that include "high deductible" plans and other cost controls.) In both systems, carved-out programs de-link services from other mental health and general health care. Barriers are also rooted in disciplinary differences and weak clinical linkages between psychiatry, primary care and substance use, and in confidentiality policies that inhibit communication and coordination, while protecting patient privacy. Conclusion: In this era of health care reform, we have the opportunity to increase access for adolescents and develop new models of integrated services for those with co-occurring conditions. We discuss opportunities for improving treatment access and implementation of evidence-based practices, examine implications of health reform and parity legislation for psychiatric and substance use treatment, and comment on key unanswered questions and future research opportunities. Copyright 2010, Elsevier Science.