

# Library Watch

substance abuse  
& adolescents

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## **Addictive behavior and family functioning during adolescence.**

Tafa M; Baiocco R. *American Journal of Family Therapy* 37(5): 388-395, 2009. (20 refs.)

The purpose of this study was to examine how adolescent and parental perceptions of family system characteristics predict adolescent addictive behavior patterns. The sample consisted of 252 families. Questionnaires included measurements of family functioning using the FACES III instrument and addictive behavior using the Shorter Promis Questionnaire (SPQ). To predict addictive behavior we conducted step-wise regression analyses (forward method), with the dimensions of the four SPQs as dependent variables and individual (age and gender) and family functioning variables as predictors. Results: Data provide support for the proposal that family system characteristics could predict adolescent addictive behavior; despite our taking not only a normative sample, but also non-clinical families into consideration. Data in literature suggest that adolescent addictions increase in families characterized by weak emotional bonds (low cohesion) and the incapacity to change their power structure, role relationships, and relationship rules in response to situational and developmental stress (high adaptability). These findings reinforce the need to continue to explore family functioning and therefore may provide additional protection against adolescent addiction. Copyright 2009, Taylor & Francis.

## **Adolescent prescription ADHD medication abuse is rising along with prescriptions for these medications.**

Setlik J; Bond GR; Ho M. *Pediatrics* 124(3): 875-880, 2009. (37 refs.)

**OBJECTIVE:** We sought to better understand the trend for prescription attention-deficit/hyperactivity disorder (ADHD) medication abuse by teenagers. **METHODS:** We queried the American Association of Poison Control Center's National Poison Data System for the years of 1998-2005 for all cases involving people aged 13 to 19 years, for which the reason was intentional abuse or intentional misuse and the substance was a prescription medication used for

ADHD treatment. For trend comparison, we sought data on the total number of exposures. In addition, we used teen and preteen ADHD medication sales data from IMS Health's National Disease and Therapeutic Index database to compare poison center call trends with likely availability. **RESULTS:** Calls related to teenaged victims of prescription ADHD medication abuse rose 76%, which is faster than calls for victims of substance abuse generally and teen substance abuse. The annual rate of total and teen exposures was unchanged. Over the 8 years, estimated prescriptions for teenagers and preteenagers increased 133% for amphetamine products, 52% for methylphenidate products, and 80% for both together. Reports of exposure to methylphenidate fell from 78% to 30%, whereas methylphenidate as a percentage of ADHD prescriptions decreased from 66% to 56%. Substance-related abuse calls per million adolescent prescriptions rose 140%. **CONCLUSIONS:** The sharp increase, out of proportion to other poison center calls, suggests a rising problem with teen ADHD stimulant medication abuse. Case severity increased over time. Sales data of ADHD medications suggest that the use and call-volume increase reflects availability, but the increase disproportionately involves amphetamines. Copyright 2009, American Academy of Pediatrics.

## **Alcohol use motives among traumatic event-exposed, treatment-seeking adolescents: Associations with posttraumatic stress.**

Dixon LJ; Leen-Feldner EW; Ham LS; Feldner MT; Lewis SF. *Addictive Behaviors* 34(12): 1065-1068, 2009. (28 refs.)

The current study evaluated the linkage between posttraumatic stress symptoms and alcohol use motives among 49 traumatic event-exposed adolescents (M-age = 16.39 years). It was hypothesized that posttraumatic stress symptom levels would be positively associated with coping-related drinking motives specifically (cf., social, enhancement, or conformity motives) and that coping-related drinking motives would evidence associations with the hyperarousal and reexperiencing posttraumatic stress symptom types. Findings were consistent with hypotheses, suggesting traumatic event-exposed adolescents may be using

alcohol to manage posttraumatic stress symptoms. Copyright 2009, Elsevier Science.

**Childhood risk factors for young adult substance dependence outcome in offspring from multiplex alcohol dependence families: A prospective study.**

Hill SY; Steinhauer SR; Locke-Wellman J; Ulrich R. *Biological Psychiatry* 66(8): 750-757, 2009. (64 refs.)  
 Background: Age of onset to begin drinking is a known risk factor for alcohol dependence. Factors have been identified that contribute to age of onset to begin regular drinking. These include reduced P300, increased postural sway, and personality variation. A longitudinal study spanning childhood to young adulthood provided the opportunity to determine if these same factors would predict the presence and onset of substance use disorders (SUD). Methods: Multiplex families were identified through two or more alcohol-dependent brothers. Offspring from these multiplex or control families (n = 133) were followed annually during childhood. Using childhood predictors previously identified as risk factors for age of onset to begin drinking, SUD outcome by young adulthood was modeled. Results: Familial risk status was a significant predictor of young adult SUD outcome as a main effect and as an interaction with P300 amplitude recorded before the age of 13. In adolescence (age 15), increased postural sway and familial risk predicted the SUD outcome by age 22. Analysis comparing the presence of one or both risk factors showed that those above the median for sway and below the median for P300 amplitude had substantially increased odds of developing SUD (odds ratio = 8.08 [confidence interval = 1.52-42.83]). Conclusions: Our findings indicate that among the factors predicting age of onset to begin regular drinking, P300 predicts SUD outcome across an 11-year span. The present findings provide the longest follow-up to date demonstrating that neurobiological factors in childhood are among the most salient predictors of young adult SUD outcome. Copyright 2009, Elsevier Science.

**Childhood sleep problems, early onset of substance use and behavioral problems in adolescence.**

Wong MM; Brower KJ; Zucker RA. *Sleep Medicine* 10(7): 787-796, 2009. (65 refs.)  
 Background: Very few prospective studies examine the relationship between childhood sleep problems and subsequent substance use. In this study, we examined how sleep problems at ages 3-8 predicted onset of alcohol, cigarette, and marijuana use in adolescence. We also investigated the relationships between childhood sleep problems and adolescent internalizing

and externalizing problems. Methods: Study participants were 292 boys and 94 girls from a community sample of high risk families and controls in an ongoing longitudinal study. Results: Controlling for parental alcoholism, sleep problems at ages 3-8 predicted onset of alcohol, cigarette, and marijuana use among boys and onset of alcohol use among girls. Childhood sleep problems were related to maternal ratings of internalizing and externalizing problems during adolescence for both boys and girls. Adjusting for these problems did not weaken the effects of sleep problems on onset of substance use. Conclusions: This is to our knowledge the first study that prospectively examines gender differences in the relationship between sleep problems and early onset of substance use. Childhood sleep problems predicted early onset of substance use for boys but not girls. If childhood sleep problems indeed increase the probability of substance use onset, greater attention by parents to sleep problems in children and adolescents would potentially have ameliorative long-term effects. Parents are encouraged to explore different ways to help their children sleep better, including obtaining information and suggestions from their primary care physicians. Copyright 2009, Elsevier Science.

**Drinking alcohol before age 13 and negative outcomes in late adolescence.**

Peleg-Oren N; Saint-Jean G; Cardenas GA; Tammara H; Pierre C. *Alcoholism: Clinical and Experimental Research* 33(11): 1966-1972, 2009. (49 refs.)  
 Background: Research has shown that adolescents who begin drinking at an early stage in life are at greater risk of developing alcohol dependency, as well as a variety of negative outcomes, for instance, delinquent behavior. Most of these studies have focused on those who begin drinking in middle adolescence, but little attention has been paid to youth who initiate drinking under the age of 13. Twenty percent of adolescents have begun using alcohol by the age of 13. The purpose of the study is to examine whether initiating alcohol use before the age of 13 exacerbates negative outcomes in late adolescence. Methods: Data for the study were derived from 2 school-based statewide surveys conducted in Florida: the 2005 YRBS and the 2006 FYSAS. The sample included 12,352 11th and 12th grade students divided into 3 groups: students who initiated alcohol use under the age of 13, students who initiated alcohol use at age 13 or later, and students who never used alcohol. Results: Results showed that after adjusting for gender, ethnicity/race, and grade, adolescents who initiated alcohol use before age 13 were more likely to report problems with school performance and display

delinquent behaviors (carrying a gun, carrying a weapon to school, and recent marijuana use). Conclusion: Although no temporal relationships can be determined between drinking alcohol before age 13 and delinquent behavior outcomes, the results suggested that adolescents under the age of 13 need to be included in national epidemiological surveys on alcohol use and more efforts need to be directed toward the implementation of prevention programs early in elementary and middle schools. Copyright 2009, Research Society on Alcoholism.

**Early adolescent alcohol use and sexual experience by emerging adulthood: A 10-year longitudinal investigation.**

Strachman A; Impett EA; Henson JM; Pentz MA. *Journal of Adolescent Health* 45(5): 478-482, 2009. (39 refs.)

Purpose: The current study examined the long-term relationship of early adolescent alcohol use to number of sexual partners by emerging adulthood. Methods: Using data from a 10-year longitudinal study, we collected data on sixth- and seventh-grade students' alcohol use and their lifetime number of sexual partners 10 years later. Results: We found a significant effect of early alcohol use in the sixth and seventh grades on lifetime number of sexual partners 10 years later, controlling for gender, age, race, peer norms, and sensation seeking. Early age at first intercourse mediated the association between early alcohol use and number of sexual partners. Conclusions: Interventions focused on preventing use of alcohol at an early age may have the potential to reduce risks for sexually transmitted diseases during adolescence and emerging adulthood. Copyright 2009, Society for Adolescent Medicine.

**Gender differences in factors influencing alcohol use and drinking progression among adolescents. (review).**

Schulte MT; Ramo D; Brown SA. *Clinical Psychology Review* 29(6): 535-547, 2009. (174 refs.)

While prevalence rates for alcohol use and related disorders differ widely between adult men and women, male and female adolescents do not exhibit the same disparity in alcohol consumption. Previous research and reviews do not address the emergence of differences in drinking patterns that occur during late adolescence. Therefore, a developmental perspective is presented for understanding how various risk and protective factors associated with problematic drinking affect diverging alcohol trajectories as youth move into young adulthood. This review examines factors associated with risk for developing an alcohol use

disorder in adolescent girls and boys separately. Findings indicate that certain biological (i.e., genetic risk, neurological abnormalities associated with P300 amplitudes) and psychosocial (i.e., impact of positive drinking expectancies, personality characteristics, and deviance proneness) factors appear to impact boys and girls similarly. In contrast, physiological and social changes particular to adolescence appear to differentially affect boys and girls as they transition into adulthood. Specifically, boys begin to manifest a constellation of factors that place them at greater risk for disruptive drinking: low response to alcohol, later maturation in brain structures and executive function, greater estimates of perceived peer alcohol use, and socialization into traditional gender roles. On an individual level, interventions which challenge media-driven stereotypes of gender roles while simultaneously reinforcing personal values are suggested as a way to strengthen adolescent autonomy in terms of healthy drinking decisions. Moreover, parents and schools must improve consistency in rules and consequences regarding teen drinking across gender to avoid mixed messages about acceptable alcohol use for boys and girls. Copyright 2009, Elsevier Science.

**Impact of Hurricane Rita on adolescent substance use.**

Rohrbach LA; Grana R; Vernberg E; Sussman S; Sun P. *Psychiatry: Interpersonal and Biological Processes* 72(3): 222-237, 2009. (64 refs.)

Little systematic research attention has been devoted to the impact of natural disasters on adolescent substance use. The present study examined relationships among exposure to Hurricane Rita, posttraumatic stress (PTS) symptoms, and changes in adolescent substance use from 13 months pre-disaster to seven and 19 months post-disaster. Subjects were 280 high school students in southwestern Louisiana who participated in a drug abuse prevention intervention trial prior to the hurricane. Two-thirds of participants were female and 68% were white. Students completed surveys at baseline (13 months pre-hurricane) and two follow-ups (seven and 19 months post-hurricane). Results indicated a positive bivariate relationship between PTS symptoms, assessed at 7 months post-hurricane, and increases in alcohol ( $p < .05$ ) and marijuana use ( $p < .10$ ) from baseline to the 7 months post-hurricane follow-up. When these associations were examined collectively with other hurricane-related predictors in multivariate regression models, PTS symptoms did not predict increases in substance use. However, objective exposure to the hurricane predicted increases in marijuana use, and post-

hurricane negative life events predicted increases in all three types of substance use ( $ps < .10$ ). These findings suggest that increased substance use may be one of the behaviors that adolescents exhibit in reaction to exposure to hurricanes. Copyright 2009, Guilford Publications.

**Monitoring matters: Meta-analytic review reveals the reliable linkage of parental monitoring with adolescent marijuana use.**

Lac A; Crano WD. *Perspectives on Psychological Science* 4(6): 578-586, 2009. (59 refs.)

Parental monitoring is commonly accredited as an important protective factor against risky adolescent behaviors. In this meta-analytic review, associations of adolescents' perceptions of parental monitoring with adolescent marijuana use were collected and quantified across 25 independent samples from 17 empirical studies involving 35,367 unique participants. Applying a random-effects model, the average magnitude of effect was  $r = -.21$ . The association was significantly stronger in female-only samples ( $r = -.31$  vs.  $r = -.19$ ,  $p < .001$ ) and when parental monitoring was defined purely in terms of parental knowledge of the child's whereabouts, activities, and relations ( $r = -.24$  vs.  $r = -.19$ ,  $p < .05$ ). Cross-sectional ( $r = -.23$ ) and longitudinal studies ( $r = -.10$ ) disclosed significant effect sizes. To assess publication bias, a file-drawer analysis indicated that 7,358 studies of nil effect size would be necessary to render the association of parental monitoring and reduced marijuana usage nonsignificant. Theoretical and practical implications of parental monitoring are discussed, especially issues concerning the measurement of parental monitoring and the possible utility of the construct in curtailing marijuana use. Copyright 2009, Wiley-Blackwell Publishing.

**Parental consent in adolescent substance abuse treatment outcome studies.**

Smith DC; Boel-Studt S; Cleeland L. *Journal of Substance Abuse Treatment* 37(3): 298-306, 2009. (73 refs.)

No systematic review has focused on parental consenting procedures used in adolescent substance abuse treatment outcomes research. To address this gap, we examined parental consenting procedures in adolescent outcome studies ( $n = 34$ ) published between 1980 and 2007. Although parental consent was required in 89% of adolescent treatment outcome studies we reviewed, consenting procedures were not routinely reported. We argue that parental consenting procedures should be routinely reported as a methodological feature of adolescent treatment outcome studies and, given concerns about sample bias in

adolescent risk behavior research when parental consent is required, encourage outcomes researchers in this area to prospectively study the impact of consenting procedures on both the study participation rates and substance use reporting. Copyright 2009, Elsevier Science.

**Parental divorce and adolescent drunkenness: Role of socioeconomic position, psychological well-being and social support.**

Tomcikova Z; Geckova AM; Orosova O; van Dijk JP; Reijneveld SA. *European Addiction Research* 15(4): 202-208, 2009. (40 refs.)

Background: The aim of this cross-sectional study was to explore the association between parental divorce and adolescent drunkenness in the last 4 weeks and the contribution of socioeconomic position, family structure, social support from family and well-being to this association. Methods: We obtained data on 3,694 elementary school students from several cities in Slovakia (mean age 14.3, 49.0% males; response rate 93%). Respondents completed questionnaires on how often they had been drunk in the last 4 weeks, whether their parents were divorced, their socioeconomic position (education of parents, family affluence), the composition of the household (one or two parents/step-parents), social support from the family and their own well-being. Results: Parental divorce was found to have an effect on adolescent drunkenness in the last 4 weeks, as well as high socioeconomic position, low social support from the family and high depression/anxiety. The effect of divorce on drunkenness decreased only slightly after adding social support into the model. Conclusion: Our findings indicate that parental divorce has a persistent influence on risk behavior independent of the influence of socioeconomic position and well-being. Parental divorce may increase the likelihood of drunkenness more than other factors such as low parental support and poor socioeconomic position. Copyright 2009, Karger.

**Racial/ethnic differences in correlates of prescription drug misuse among young adults.**

Harrell ZAT; Broman CL. *Drug and Alcohol Dependence* 104(3): 268-271, 2009. (37 refs.)

This study examined psychosocial correlates of prescription drug misuse over time among young adults. Data from a nationally representative U.S. sample consisting of 4882 cases were analyzed. Multivariate logistic regression analyses revealed that being younger, having less education, as well as alcohol use; marijuana use, inhalant use, and delinquent behavior during adolescence were associated with prescription drug misuse. In Whites,

prescription drug misuse was related to age, alcohol use, marijuana use and delinquent behavior. Among Hispanic young adults inhalant use, delinquent behavior and maternal warmth were associated with greater prescription drug use, while marijuana use was predictive of lower prescription drug misuse. Religious attendance was associated with lower prescription drug misuse among Black young adults. These findings suggest that there are unique racial/ethnic profiles for substance use risk behaviors in adolescence. Further investigations should examine culturally specific dimensions that may account for racial/ethnic differences in prescription drug misuse. Copyright 2009, Elsevier Science.

**Seven years later: Developmental transitions and delinquent behavior for male adolescents who received long-term substance treatment.**

D'Amico EJ; Ramchand R; Miles JNV. *Journal of Studies on Alcohol and Drugs* 70(5): 641-651, 2009. (50 refs.)

Objective: Few studies have applied the "life course perspective" to the study of drug use, a noticeable omission in the field. The current study addresses this gap by examining patterns of interpersonal crime, substance use, and emotional problems over 7 years for a sample of 196 high-risk males as they transition from adolescence to young adulthood, with a specific focus on the role of transitions (living alone, employment, marrying or cohabiting with a romantic partner, graduating from high school or acquiring a General Equivalency Diploma, and becoming a parent) on these patterns. Method: We surveyed youth who were adjudicated as delinquent in Los Angeles between February 1999 and May 2000 and referred by probation officials to Phoenix Academy, a long-term residential substance-treatment provider for adolescent probationers. Males ages 13-17 (N = 196) were given face-to-face interviews at study entry and at 3, 6, 12, 24, 30, 72, and 87 months. Results: Living independently and cohabiting were associated with decreased substance problems. Living with children was associated with increased interpersonal crime. Living away from parents was associated with an increase in substance problems following the transition and then a subsequent decrease in problems over time. No effects were found for receiving a diploma or having employment. Conclusions: It is crucial to begin to understand how developmental transitions may affect high-risk adolescents' involvement in criminal behavior, substance use, and emotional problems. The current study suggests that several transitions were associated with a reduction in problems as these youth

transitioned into young adulthood. Copyright 2009, Alcohol Research Documentation.

**Strategy for increasing detection rates of drug and alcohol abuse in paediatric emergency departments.**

Kozer E; Bar-Hamburger R; Rosenfeld N; Dalal I; Landu O; Fainmesser P et al. *Acta Paediatrica* 98(10): 1637-1640, 2009. (30 refs.)

Aim: To determine whether implementation of criteria for performing a toxicology screen and increasing staff awareness improve detection of substance abuse among adolescents presenting to the emergency department. Methods: Patients 12 to 18 years of age presenting to one of three emergency departments in Israel were included in a prospective cohort study. In the 'study' hospital, a set of criteria for urine toxicology screen and measurements of ethanol serum level were implemented. No specific interventions were implemented in the two other hospitals. The main outcome measure was the rate of substance abuse detection. Results: The number of adolescents seen in the participating centres was 3200 at the study hospital, and 3493 and 2792 at the two other hospitals. High blood ethanol concentrations were found in 49 patients at the study hospital compared with 30 and 19 patients at the two other hospitals ( $p < 0.001$ ). Illicit drugs were detected in 13, 4 and 1 patients, respectively ( $p = 0.002$ ). Conclusions: Introducing structured guidelines for ordering toxicological screening increases the detection of alcohol and drug of abuse among adolescents presenting to paediatric emergency departments. Copyright 2009, Wiley-Blackwell.

**Sudden death and use of stimulant medications in youths.**

Gould MS; Walsh BT; Munfakh JL; Kleinman M; Duan NH; Olfson M et al. *American Journal of Psychiatry* 166(9): 992-1001, 2009. (40 refs.)

Objective: The authors sought to determine whether a significant association exists between the use of stimulants and the rare event of sudden unexplained death in children and adolescents. Method: A matched case-control design was performed. Mortality data from 1985-1996 state vital statistics were used to identify 564 cases of sudden death occurring at ages 7 through 19 years across the United States along with a matched group of 564 young people who died as passengers in motor vehicle traffic accidents. The primary exposure measure was the presence of amphetamine, dextroamphetamine, methamphetamine, or methylphenidate according to informant reports or as noted in medical examiner records, toxicology results, or death certificates. Results: In 10 (1.8%) of

the sudden unexplained deaths it was determined that the youths were taking stimulants, specifically methylphenidate; in contrast, use of stimulants was found in only two subjects in the motor vehicle accident comparison group (0.4%), with only one involving methylphenidate use. A significant association of stimulant use with sudden unexplained death emerged from the primary analysis, which was based on exact conditional logistic regression (odds ratio=7.4, 95% CI=1.4 to 74.9). A comprehensive series of sensitivity analyses yielded qualitatively similar findings. Conclusions: This case-control study provides support for an association between the use of stimulants and sudden unexplained death among children and adolescents. Although sudden unexplained death is a rare event, this finding should be considered in the context of other data about the risk and benefit of stimulants in medical treatment. Copyright 2009, American Psychiatric Association.

**Teenage drinking, alcohol availability and pricing: A cross-sectional study of risk and protective factors for alcohol-related harms in school children.**

Bellis MA; Phillips-Howard PA; Hughes K; Hughes S; Cook PA; Morleo M et al. *BMC Public Health* 9(380), 2009. (48 refs.)

Background: There is a lack of empirical analyses examining how alcohol consumption patterns in children relate to harms. Such intelligence is required to inform parents, children and policy relating to the provision and use of alcohol during childhood. Here, we examine drinking habits and associated harms in 15-16 year olds and explore how this can inform public health advice on child drinking. Methods: An opportunistic survey of 15-16 year olds (n = 9,833) in North West England was undertaken to determine alcohol consumption patterns, drink types consumed, drinking locations, methods of access and harms encountered. Cost per unit of alcohol was estimated based on a second survey of 29 retail outlets. Associations between demographics, drinking behaviours, alcohol pricing and negative outcomes (public drinking, forgetting things after drinking, violence when drunk and alcohol-related regretted sex) were examined. Results: Proportions of drinkers having experienced violence when drunk (28.8%), alcohol-related regretted sex (12.5%) and forgetting things (45.3%), or reporting drinking in public places

(35.8%), increased with drinking frequency, binge frequency and units consumed per week. At similar levels of consumption, experiencing any negative alcohol-related outcome was lower in those whose parents provided alcohol. Drunken violence was disproportionately associated with being male and greater deprivation while regretted sex and forgetting things after drinking were associated with being female. Independent of drinking behaviours, consuming cheaper alcohol was related to experiencing violence when drunk, forgetting things after drinking and drinking in public places. Conclusion: There is no safe level of alcohol consumption for 15-16 year olds. However, while abstinence removes risk of harms from personal alcohol consumption, its promotion may also push children into accessing drink outside family environments and contribute to higher risks of harm. Strategies to reduce alcohol-related harms in children should ensure bingeing is avoided entirely, address the excessively low cost of many alcohol products, and tackle the ease with which it can be accessed, especially outside of supervised environments. Copyright 2009, BioMed Central.

**The effect of marijuana scenes in anti-marijuana public service announcements on adolescents' evaluation of ad effectiveness.**

Kang YH; Cappella JN; Fishbein M. *Health Communication* 24(6): 483-493, 2009. (37 refs.)

This study explored the possible negative impact of a specific ad featuring marijuana scenes on adolescents' perceptions of ad effectiveness. A secondary data analysis was conducted on adolescents' evaluations of 60 anti-marijuana public service announcements that were a part of national and state anti-drug campaigns directed at adolescents. The major finding of the study was that marijuana scenes in anti-marijuana public service announcements negatively affected ad liking and thought valence toward the ads among adolescents who were at higher levels of risk for marijuana use. This negative impact was not reversed in the presence of strong anti-marijuana arguments. The results may be used to partially explain the lack of effectiveness of the anti-drug media campaign. It may also help researchers design more effective anti-marijuana ads by isolating adverse elements in the ads that may elicit boomerang effects in the target population. Copyright 2009, Lawrence Erlbaum.