

Beyond invulnerability: The importance of benefits in adolescents' decision to drink alcohol.

Goldberg JH; Halpern-Felsher BL; Millstein SG. *Health Psychology* 21(5): 477-484, 2002. (51 refs.)

Some investigators propose that adolescents engage in risky behaviors mainly because they perceive themselves to be invulnerable to risk. However, studies have typically not included perceived benefits. In the current study, 5th, 7th, and 9th graders were surveyed about their perceptions of and experience with alcohol and tobacco. Results indicated that perceptions of the benefits were significantly related to drinking and smoking 6 months later, over and above perceptions of the risks, age of the respondent, and experience level. Further, the importance of benefits was replicated across 3 separate analyses. Experience with alcohol alone, especially positive experience, was also related to perception and behavior. These findings are discussed in terms of how to improve messages and influence adolescents' decisions regarding risk-taking behaviors.

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Potential biases in case detection of alcohol involvement among adolescents in an emergency department.

Colby SM; Barnett NP; Eaton CA; Spirito A; Woolard R; Lewander W et al. *Pediatric Emergency Care* 18(5): 350-354, 2002. (25 refs.)

Objective: To determine the factors associated with physician decisions to test for alcohol involvement in adolescents treated in an emergency department (ED) and to examine patient and event characteristics associated with being identified as alcohol positive, either by testing or by clinical examination. Methods: Medical chart reviews were conducted for all adolescent patients (n = 9660; age range, 13-19 y) treated over a 1-year period in a Level I regional trauma center/ED. Results: Among all 9660 patients in the ED, 298 (3.1 %) were identified as alcohol positive by test or clinical examination. Of the 9660 patients, 464 (4.8 %) were tested for alcohol, and 49 % of these had alcohol-positive test results. Physicians were more likely to order alcohol tests when patients were male, older, injured, and treated during the overnight shift or on weekends. Testing was most common for suicide attempts, motor vehicle crashes, assaults, and intoxication. Patients being treated for an illness or for occupational or athletic

injuries were rarely tested. A large proportion of alcohol-related treatment was for intoxicated, uninjured patients, whose profile was different (i.e., younger, more often female, with higher blood alcohol concentrations, and admission distributed more evenly across ED shifts). Conclusions: Case detection rates for alcohol involvement may be biased and inflated when based on physician decisions to test for alcohol use. Rates based on comprehensive chart reviews and clinical examination may be better estimates but are also subject to methodologic limitations. Universal screening would yield the most accurate estimates of alcohol prevalence and would provide more accurate guidance to physicians regarding when to test for alcohol use. Universal screening as a clinical standard would help to identify more adolescents who might benefit from additional alcohol use intervention..

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Testing a longitudinal model of the relationships among high risk youths' drug sales, drug use and participation in index crimes.

Dembo R; Wothke W; Seeberger W; Shemwell M; Pacheco K; Rollie M et al. *Journal of Child & Adolescent Substance Abuse* 11(3): 37-61, 2002. (37 refs.)

Baseline, one-year and two-year follow-up interviews were obtained from 164 arrested youths processed at a juvenile assessment center in a prospective longitudinal study. A structural equation model that included cross-sectional and longitudinal associations among drug (alcohol and marijuana), drug sales and index offenses was supported by the data. Research, theoretical, and policy implications of the results are drawn. Copyright 2002, Haworth Press, Inc.

Variability in drug use prevalence across school districts in the same locale in Ohio.

Falck RS; Wang JC; Carlson RG; Siegal HA. *Journal of Laboratory and Clinical Medicine* 72(7): 288-293, 2002. (28 refs.)

Substance use by adolescents continues to present a problem schools must address. Data from survey research can prove useful in helping schools determine the nature and extent of youth drug use. This study identified variations in drug use prevalence among ninth grade students in different school districts in the same locale in Ohio. Possible explanations for the differences were explored. Students (n = 3,016) from 12 suburban high schools anonymously completed self-report drug use questionnaires. School and community-level data were collected from other sources. Cluster analysis was used

to group the school districts. ANOVA revealed statistically significant differences (P less than or equal to 0.001) in levels of drug use by cluster. The cluster with significantly lower levels of drug use consisted of districts with at least one fulltime drug abuse prevention coordinator, higher economic levels, and the highest per pupil expenditures. Drug use among youth is influenced, at least in part, by local contextual factors. Local survey data can inform local policy and programs. These findings have practical implications for policymakers, program developers, and school districts in other areas of the country. Copyright 2002, Mosby-Yearbook, Inc.

Preparing adolescent patients for college. (review).

Goldstein MA. *Current Opinion in Pediatrics* 14(4): 384-388, 2002. (42 refs.)

Adolescents making the transition to college should have a thorough medical evaluation during the year prior to matriculation. In addition to required and recommended immunizations and tests, a comprehensive history and physical examination is important. Screening for substance abuse, sexual activity, depression, and suicidality is needed with appropriate anticipatory guidance, examinations, and treatment, if indicated. The teen should also be counseled on stress, sleep, and self-care, with information on when to seek medical care. The adolescent should be encouraged to continue communications with the primary care clinician during college. While respecting the adolescent's confidentiality, it is important that the physician communicate all significant medical and psychiatric health information to the college health center before the adolescent arrives on campus.

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Sports doping in the adolescent athlete: The hope, hype, and hyperbole. (review).

Greydanus DE; Patel DR. *Pediatric Clinics of North America* 49(4): 829-VIII, 2002. (129 refs.)

The drive toward success in sports and the need for a cosmetically acceptable appearance has driven many adolescents to take a wide variety of substances. The consuming of these chemicals in the hope 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" dietary products available to our youth. Some of the agents used by athletes include drugs such as anabolic steroids, beta blockers, human growth hormone, stimulants, and erythropoietin; also noted are dietary supplements such as creatine, androstenedione, protein and amino acids, minerals, and antioxidants. The use of these agents has

considerable potential to cause physical and psychological damage. Misuse of drugs in this manner (or the "sports doping phenomenon," as it is called), should be discouraged. This discussion reviews some of these 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. Copyright 2002, W.B. Saunders Co.

Parent figure transitions and delinquency and drug use among early adolescent children of substance abusers.

Keller TE; Catalano RF; Haggerty KP; Fleming CB.

American Journal of Drug and Alcohol Abuse 28(3): 399-427, 2002. (83 refs.)

Children of substance abusing parents have an elevated risk for experiencing disruptions in household composition and for engaging in problem behaviors. This study investigated whether, multiple parent figure transitions predicted the likelihood of delinquency and drug use among a sample of early adolescents with parents receiving methadone treatment for opiate addiction. Controlling for baseline delinquency, child characteristics, family conflict, parental depression, and parent criminal history, a greater number of parenting disruptions during the longitudinal study period was associated with a higher probability of delinquent behavior. Gender moderated the effect of parent figure transitions in a parallel analysis for drug use. After accounting for baseline drug use and potentially confounding factors, only adolescent females had a higher likelihood of drug use as the number of family disruptions increased. In contrast, age was strongly associated with drug use for males. A subgroup of youths who experienced tremendous family instability and had no single consistent parent figure during the study period were at extreme risk for delinquent behavior. The findings are interpreted in terms of cumulative stress resulting from multiple parenting disruptions over time and differential influences on the expression of problem behaviors depending on gender.

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Ketamine injection among high risk youth: Preliminary findings from New York City.

Lankenau SE; Clatts MC. *Journal of Drug Issues* 32(3): 893-905, 2002. (16 refs.)

Ketamine, a synthetic drug commonly consumed by high risk youth, produces a range of experiences, including sedation, dissociation, and hallucinations. While ketamine is more typically sniffed, we describe a small sample of young ketamine injectors (n=25) in New York City and highlight risks associated with this emerging type of injection drug use. Our findings indicate that the injection practices, inject-

ion groups, and use norms surrounding ketamine often differ from other injection drug use: intramuscular injections were more common than intravenous injections; injection groups were often large; multiple injections within a single episode were common; bottles rather than cookers were shared; and the drug was often obtained for free. Our findings suggest that the drug injection practices exercised by ketamine injectors place them at risk for bloodborne pathogens, such as HIV, HBV, and HCV. We conclude that ketamine injectors represent an emerging, though often hidden, population of injection drug users, particularly among high risk, street-involved youth.

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Behavior change counseling in the emergency department to reduce injury risk: A randomized, controlled trial.

Johnston BD; Rivara FP; Droesch RM; Dunn C; Copass MK. *Pediatrics* 110(2): 267-274, 2002. (30 refs.)

Objective. To determine whether a brief session of behavior change counseling (BCC), offered to injured adolescents in the emergency department (ED) as a therapeutic intervention, could be used to change injury-related risk behaviors and the risk of re-injury. **Study Design.** A randomized, controlled trial. **Participants.** Adolescents between 12 and 20 years old who were undergoing treatment for an injury in the ED and who were cognitively able to participate in the intervention. **Setting.** An urban ED at a level 1 pediatric trauma center. **Intervention.** Study participants completed a baseline risk behavior prevalence assessment. Participants were then randomly assigned to receive BCC or routine ED care. Those in the treatment group underwent a brief session of BCC with a study social worker focused on changing an identified injury-related risk behavior (seat-belt use, bicycle helmet use, driving after drinking, riding with an impaired driver, binge drinking, or carrying a weapon). Participants were recontacted 3 months and 6 months after enrollment to assess the prevalence of positive behavior change and the interim occurrence of medically treated injuries. **Results.** We enrolled 631 participants (78% of those eligible) and obtained follow-up for 76% at 3 months and 75% at 6 months. The relative risk of a positive behavior change with respect to seatbelt use was 1.34 (95% confidence interval [CI]: 1.00, 1.79) at 3 months, favoring the intervention group. The relative risk for the same outcome was 1.47 (95% CI: 1.09, 1.96) at 6 months. A positive change in bicycle helmet use was 1.81 (95% CI: 1.02, 3.18) times more likely at 3 months and 2.00 (95% CI: 1.00, 4.00) times more likely at 6

months in the intervention group. There was no effect of the intervention on changes in other target behaviors. Over the 6-month follow-up period, the risk of reinjury requiring medical attention did not differ between treatment groups. **Conclusions.** Brief BCC can be delivered to adolescents undergoing treatment for injury in the ED and can be used to address injury-related risk behaviors. The intervention was associated with a greater likelihood of positive behavior change in seatbelt and bicycle helmet use. This effect lasted over 6 months of follow-up. BCC was not associated with changes in other risk behaviors and could not be shown to significantly reduce the risk of re-injury.

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Risk perceptions and alcohol consumption among young people.

Lundborg P; Lindgren O. *Journal of Risk and Uncertainty* 25(2): 165-183, 2002. (27 refs.)

Swedish cross-sectional survey data on young individuals was used to analyse the determinants of perceived risks of alcohol use and how these perceptions relate to drinking behaviour. Three major conclusions were drawn: (1) that people overestimate the risks of alcoholism, (2) that these risk perceptions fall substantially with age, but nevertheless imply risk overestimation, and (3) that education about alcohol, narcotics and tobacco leads individuals to perceive risks more correctly and to have lower risk beliefs. An additional finding was that individuals with higher perceived risks were less likely to consume alcohol. Equations were estimated both separately and simultaneously.

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Privileged but pressured? A study of affluent youth.

Luthar SS; Becker BE. *Child Development* 73(5): 1593-1610, 2002. (97 refs.)

The purpose of this study was to build on preliminary findings of unusually high internalizing symptoms and substance use among suburban high school students. The sample consisted of 302 sixth- and seventh-grade students in an affluent, suburban community. Findings corroborated expectations regarding several domains of vulnerability, showing (1) high rates of clinically significant depressive symptoms among older girls, (2) significant links between various internalizing symptoms and substance use among both boys and girls, and (3) peers' approval of substance use among older boys. In exploring potential causes of distress in this suburban sample, associations were found for achievement pressures (particularly excessive perfectionistic strivings), and isolation from parents (particularly low perceived closeness to mothers). Findings of this study are discussed in terms of widespread stereotypes about affluent families, as well as implications for future research and

preventive interventions for a subgroup of youth typically viewed as being at "low risk".

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Nonproblem drinking outcomes in adolescents treated for alcohol use disorders.

Maisto SA; Martin CS; Pollock NK; Cornelius JR;

Chung TA. *Experimental and Clinical*

Psychopharmacology 10(3): 324-331, 2002. (33 refs.)

Change to nonproblem drinking was studied in 159 adolescents (70% male) presenting for alcohol use disorders (AUDs) treatment. A community sample (n = 148, 47% male) also was assessed. Clinical participants had a current AUD at baseline; 1 year later, 17% remained abstinent, 60% had at least 1 AUD symptom (problem drinkers), and 23% were drinking but had no AUD symptoms (nonproblem drinkers). Drinking among the nonproblem drinkers decreased and was lower than in the problem drinkers. Nonproblem drinkers increased in psychosocial functioning and decreased in the number of illicit drugs used relative to problem drinkers and generally did not differ from the abstainers. The results suggest alternative views of treatment goals, relapse, and treatment outcome in adolescents.

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Caffeine use and dependence in adolescents: One-year follow-up.

Oberstar JV; Bernstein GA; Thuras PD. *Journal of Child & Adolescent Psychopharmacology* 12(2): 127-135, 2002. (27 refs.)

The objectives were to conduct a 1-year follow-up of daily caffeine-using adolescents to further describe caffeine dependence symptoms and to determine whether caffeine dependence is associated with other substance dependence disorders. Twenty-one of 36 (58.3%) adolescents who participated in a study of caffeine dependence returned for follow-up. The previous study was a case series of adolescents who consumed caffeine daily and met some Diagnostic and Statistical Manual of Mental Disorders (fourth edition) substance dependence criteria as applied to caffeine. At follow-up, caffeine consumption from beverages was 179.9+/-151.8 mg/day. Of the 21 teenagers, 23.8% (n=5) met criteria for caffeine dependence. Four of these participants developed caffeine dependence during the follow-up period. Other substance dependence disorders were not overrepresented in the caffeine dependent group compared to the caffeine nondependent group. The most commonly reported withdrawal symptoms in dependent teenagers (at baseline and follow-up combined) were feeling drowsy/tired, fatigued, or

sluggish/slowed down (83.3% each) and headache (75.0%). Caffeine dependence occurs in some adolescents who drink caffeine daily and is marked by symptoms similar to those found in adults.

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What motivates adolescent smokers to make a quit attempt?

Riedel BW; Robinson LA; Klesges RC; McLain-Allen B.

Drug and Alcohol Dependence 68(2): 167-174, 2002. (28 refs.)

A sample of 120 adolescent smokers (80 males, 40 females), most of whom were referred by school personnel after being caught with cigarettes at school (n = 113), reported motivations for making a quit attempt during a smoking cessation project. Most students (n = 76) were randomly assigned to a four session cessation program that included discussion of a number of motivational topics, and the remaining students were assigned to a self-help control group that received a pamphlet recommending strategies for quitting. Reported motivations for quitting did not differ significantly across the two treatment conditions. Concern about future health (73%) was the most popular reason given for making a quit attempt, followed by concern about current health (65%). Concerns about physical appearance (59%), the cost of cigarettes (52%), and athletic performance (51%) were also listed as motivators by a majority of the participants. Future health was the most popular choice for the most important motivator to quit (35%). Females and participants with fewer best friends smoking were more likely to report that the prevalence of non-smoking teenagers, the relationship between smoking and weight, and physical appearance concerns were motivators to quit. African Americans were more likely than Whites to list current health concern as the most important motivator. Copyright 2002, Elsevier Scientific Publishers Ireland, Ltd.

Multiple hospital presentations by adolescents who use alcohol or other drugs.

Tait RJ; Hulse GK; Robertson SI; Sprivulis P. *Addiction* 97(10): 1269-1275, 2002. (23 refs.)

Aims To investigate 'all cause' and the subset of 'alcohol or other drug' (AOD) related hospital emergency department (ED) presentations over 12 months by adolescents with a previously identified AOD ED presentation. Design and setting A retrospective review of medical records in four metropolitan hospitals in Perth, Australia. Participants One hundred and fifty-two adolescents (13-19 years) identified during a previous 4-week study. The median age was 17.5 (interquartile range (IQR) 16-19); 61.1% (40%) were female. Method Medical records were reviewed for the 6 months either side of a previously identified index AOD

presentation. Hospital events in this period were collapsed as 'all cause' morbidity with a subclassification of AOD related. Findings Over half (n = 87, 57%) had no additional hospital events and 101 had only 'follow-up' treatment for their index event. The drug identified for both these groups was primarily alcohol or alcohol plus other drugs compared with mainly heroin or prescription drugs for those with multiple presentations. There were 55(36%) adolescents who had 236 presentations, including 39 with 147 AOD presentations: six polydrug users accounted for 47% of multiple presentations. Polydrug users had more 'all cause' and AOD presentations (Mann-Whitney U = 168.5, P < 0.001) than single drug users, as did 'heroin users' compared with other AOD users (U = 1, 77.5, P < 0.001). There were no significant gender differences in the total number of 'all cause' or AOD presentations. Conclusions Alcohol users were the largest group at index presentation, but accounted for few of the presentations over 12 months. Polydrug users typically had multiple presentations and may benefit from additional non-medical hospital support. A more labour-intensive and structured approach might help the small number of polydrug users who accounted for a large proportion of repeat presentations over the 12-month period. Copyright 2002, Society for the Study of Addiction to Alcohol and Other Drugs.

Cannabis use and psychosocial adjustment in adolescence and young adulthood.

Fergusson DM; Horwood LJ; Swain-Campbell N. *Addiction* 97(9): 1123-1135, 2002. (49 refs.)

Aim: To examine the associations between frequency of cannabis use and psychosocial outcomes in adolescence/young adulthood. **development and adjustment**
Design: A 21-year longitudinal study of the health development and adjustment of a birth cohort of 1,265 New Zealand children. **Measurements** Annual assessments of the frequency of cannabis use were obtained for the period from age 14-21 years, together with measures of psychosocial outcomes including property/violent crime, depression suicidal ideation, suicide attempt and other illicit drug use. **Findings** The frequency of cannabis use was associated significantly with all outcomes, and particularly other illicit drug use. **Statistical control** for confounding by both fixed and time-dynamic factors substantially reduced the strength of association between cannabis use and outcome measures. Nevertheless, cannabis use remained significantly (P < 0.05) associated with all outcomes and particularly other illicit drug use, after adjustment for confounding. For the measures of crime, suicidal

behaviours and other illicit drug use there was evidence of age related variation in the strength of association with cannabis use, with younger (14-15 years old) users being more affected by regular cannabis use than older (20- 21 years old) regular users. However, the association between cannabis use and depression did not vary with age. **Conclusions:** Cannabis use, and particularly regular or heavy use, was associated with increased rates of a range of adjustment problems in adolescence/young adulthood --other illicit drug use, crime, depression and suicidal behaviours -- with these adverse effects being most evident for school-aged regular users. The findings reinforce public health concerns about minimizing the use of cannabis among school-aged populations. Copyright 2002, Society for the Study of Addiction to Alcohol and Other Drugs.

Patterns of substance use in early through late adolescence.

Zapert K; Snow DL; Tebes JK. *American Journal of Community Psychology* 30(6): 835-852, 2002. (37 refs.)

This study examined patterns of substance use throughout adolescence. A cluster analytic approach was used to identify subgroups of adolescents on the basis of their levels of substance use from early through late adolescence (Grades 6 through 11). Six distinct clusters of substance users emerged -- 2 groups representing relatively stable patterns of substance use from early through late adolescence (i.e., nonusers and alcohol experimenters), and 4 groups of users showing escalating patterns of substance use (i.e., low escalators, early starters, late starters, and high escalators). The study provides a comprehensive view of adolescent substance use by examining the progression of use from early to late adolescence, demonstrates the usefulness of studying patterns of use across multiple substances, and underscores the importance of building classification schemes based on repeated measurements of substance use to reflect changes over time. Implications of the findings for future research and for identifying high-risk subgroups of adolescents for purposes of intervention based on timing and pattern of escalation are discussed. Copyright 2002, Plenum Press.

The role of self-control in early escalation of substance use: A time-varying analysis.

Wills TA; Stoolmiller M. *Journal of Consulting and Clinical Psychology* 70(4): 986-997, 2002. (73 refs.)

This research tested predictions about the role of temperament and self-control in early substance use (tobacco, alcohol, and marijuana). A sample of 1,526 participants was assessed in 6th grade (mean age = 11.5 years) and followed with yearly assessments through 9th grade. Latent growth models showed temperament dimensions were related to early substance use, and their

effects were mediated through generalized self-control ability. Time-varying effects indicated rate of growth in substance use was higher among participants who showed increases in poor self-control and lower among participants who showed increases in good self-control. Results in self-report data were corroborated by independent teacher ratings. Findings are discussed with reference to epigenetic models of protection and vulnerability.

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A longitudinal study of the effects of tobacco and cannabis exposure on lung function in young adults.

Taylor DR; Fergusson DM; Milne BJ; Horwood LJ; Moffitt TE; Sears MR; Poulton R. *Addiction* 97(8): 1055-1061, 2002. (21 refs.)

Aim To assess the possible effects of tobacco and cannabis smoking on lung function in young adults between the ages of 18 and 26. **Setting and participants** A group of over 900 young adults derived from a birth cohort of 1037 subjects born in Dunedin, New Zealand in 1972/73 were studied at age 18, 21 and 26 years. **Measurements** Cannabis and tobacco smoking were documented at each age using a standardized interview. **Lung function**, as measured by the forced expiratory volume in one second/vital capacity (FEV1/VC) ratio, was obtained by simple spirometry. A fixed effects

regression model was used to analyse the data to take account of confounding factors. **Findings** When the sample was stratified for cumulative use, there was evidence of a linear relationship between cannabis use and FEV1/VC ($P < 0.05$). In the absence of adjusting for other variables, increasing cannabis use over time was associated with a decline in FEV1/VC with time; the mean FEV1/VC among subjects using cannabis on 900 or more occasions was 7.2%, 2.6% and 5.0% less than non-users at ages 18, 21 and 26, respectively. After controlling for potential confounding factors (age, tobacco smoking and weight) the negative effect of cumulative cannabis use on mean FEV1/VC was only marginally significant ($P < 0.09$). Age ($P < 0.001$), cigarette smoking ($P < 0.05$) and weight ($P < 0.001$) were all significant predictors of FEV1/VC. Cannabis use and daily cigarette smoking acted additively to influence FEV1/VC. **Conclusions** Longitudinal observations over 8 years in young adults revealed a dose-dependent relationship between cumulative cannabis consumption and decline in FEV1/VC. However, when confounders were accounted for the effect was reduced and was only marginally significant, but given the limited time frame over which observations were made, the trend suggests that continued cannabis smoking has the potential to result in clinically important impairment of lung function.

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