

Library Watch on prevention

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Comparison of indirect sources of efficacy information in pretesting messages for campaigns to prevent drunken driving.

Anderson R. *Journal of Public Relations Research* 21(4): 428-454, 2009. (77 refs.)

Enabling publics to remove the constraints that prevent health enhancement is the focus of much scholarly research and professional practice. This experiment tested the impact of 2 forms of symbolic modeling and verbal persuasion on self-efficacy beliefs and intentions to prevent a friend from driving drunk. Three efficacy-enhancing public service announcements tested participants' beliefs in their confidence to intervene successfully. As predicted, behavioral and verbal modeling engendered greater perceived self-efficacy and behavioral intentions than did verbal persuasion, with behavioral modeling registering the greatest effects. Implications for designing campaigns of self-directed change to prevent drunken driving among college students are discussed, as well as possible directions for research on self-efficacy and the situational theory of publics. Copyright 2009, Taylor & Francis.

Evaluating the strength of school tobacco policies: The development of a practical rating system.

Boyce JC; Mueller NB; Hogan-Watts M; Luke DA. *Journal of School Health* 79(10): 495-504, 2009. (35 refs.)

BACKGROUND School tobacco control policies vary widely in their strength, extensiveness, and enforcement. Currently, no standardized method exists to assess the comprehensiveness of school tobacco policies. The purpose of this study was to develop a new practical rating system for school tobacco policies, assess its reliability, and present preliminary validation data. **METHODS** This study presents the systematic development of a rating system to assess the strength of school tobacco policies. Based on the empirical literature and the expertise of an advisory panel consisting of educational leaders and tobacco control advocates and practitioners, a "gold standard" school tobacco policy was developed and guided the content of the 40-point rating system. The 4 domains

of the School Tobacco Policy Index were: Tobacco-free environment (14 points), Enforcement (12 points), Prevention and treatment services (6 points), and Policy organization (8 points). **RESULTS** The Index was pilot-tested using 95 Missouri public school district tobacco policies and proved to be highly reliable among coders. The evaluated policies varied greatly between school districts, with the lowest total policy score of 0 and the highest score of 21. School district policy scores were significantly related to a number of county-level tobacco policy characteristics, including support for a tobacco excise tax increase. **CONCLUSIONS** The Index is a user-friendly, practical tool for tobacco control professionals and educators, providing them with the ability to easily evaluate their own school policies. Their evaluation efforts will be useful in strengthening existing policies and developing new comprehensive policies to protect the health of students, staff, administrators, and visitors. Copyright 2009, Wiley-Blackwell.

Using evidence-based research to redirect a conversation: Newspapers' coverage of strategies to address college binge drinking.

Campo S; Askelson NM; Mastin T; Slonske M. *Public Relations Review* 35(4): 411-418, 2009. (38 refs.)

This study examines selected newspapers' coverage of college binge drinking while also serving as an example of evidence-based practices that can be of use to public relations practitioners and health care professionals working to draw attention to important factors that are not being addressed in either public or policy conversations related to this issue. We examine newspaper coverage in 32 newspapers from 1997 to 2006 to determine which strategies to address college binge drinking are being covered and which of those are evidence-based and implemented by colleges. The mix of individual versus environmental strategies was examined based on Social Cognitive Theory. In the 255 articles analyzed, the majority of strategies covered were environmental. The most frequently covered strategy, increasing student knowledge, is individual and not evidence-based. Strategies classified as effective were not frequently covered. Media advocacy is offered as an evidence-based

practice that public relations and health care professionals can use to affect change. Copyright 2009, Elsevier Science.

The influence of "No Child Left Behind" legislation on drug prevention in US schools

Cho H; Hallfors DD; Iritani BJ; Hartman S.

Evaluation Review 33(5): 446-463, 2009. (28 refs.)

This study examines prevention practices and perceptions in U. S. schools since passage of federal No Child Left Behind (NCLB) legislation, using survey data from state education agencies (SEA) and a population-based sample of school districts. Only one third of U. S. public school districts rely on evidence-based prevention curriculum in middle schools. Funding from other sources and large size were positively associated with using evidence-based curricula. States and districts differed on their perceptions of high-priority activities, and neither supported the federal priority on student drug testing. The findings suggest that there is a disconnect between what NCLB says and what is funded. Copyright 2009, Sage Publications.

Translational research in action: Implementation of the Communities that Care prevention system in 12 communities.

Fagan AA; Hanson K; Hawkins JD; Arthur MW.

Journal of Community Psychology 37(7): 809-829, 2009. (55 refs.)

Translational research (Pentz, Jaszaja, Rohrbach, Sussman, & Bardo, 2006; Woolf, 2008) is concerned with moving advances in prevention science into everyday practice in communities, yet there are few models for ensuring this transfer of knowledge. Communities That Care (CTC) provides a planned, structured, and data-driven system that trains community prevention coalitions to select evidence-based programs and replicate them, with strong implementation fidelity. In this article, the authors describe the implementation of the CTC prevention system over a 5-year period in 12 communities participating in the Community Youth Development Study. The results indicated that the intervention communities enacted, on average, 90% of the core components of the CTC system, and achieved high rates of implementation fidelity when replicating a variety of school, afterschool, and parent training programs. These results held over time; communities successfully launched their prevention coalitions and programs and maintained the quality of their prevention services over 5 years. These results indicate that the CTC system can be used to foster translational research. Copyright 2009, John Wiley & Sons.

If cannabis caused schizophrenia: How many cannabis users may need to be prevented in order to prevent one case of schizophrenia? England and Wales calculations.

Hickman M; Vickerman P; Macleod J; Lewis G; Zammit S; Kirkbride J et al. *Addiction* 104(11): 1856-1861, 2009. (24 refs.)

Background: We consider how many cannabis users may need to be prevented in order to prevent one case of schizophrenia or psychosis [defined as number needed to prevent (NNP)]. Method: Calculation for England and Wales using best available estimates of: incidence of schizophrenia; rates of heavy and light cannabis use; and risk that cannabis causes schizophrenia. Results: In men the annual mean NNP for heavy cannabis and schizophrenia ranged from 2800 [90% confidence interval (CI) 2018-4530] in those aged 20-24 years to 4700 (90% CI 3114-8416) in those aged 35-39. In women, mean NNP for heavy cannabis use and schizophrenia ranged from 5470 (90% CI 3640-9839) in those aged 25-29 to 10 870 (90% CI 6786-22 732) in 35-39-year-olds. Equivalent mean NNP for heavy cannabis use and psychosis were lower, from 1360 (90% CI 1007-2124) in men aged 20-24 and 2480 (90% CI 1408-3518) in women aged 16-19. The mean and median number of light cannabis users that would need to be prevented in order to prevent one case of schizophrenia or psychosis per year are four to five times greater than among heavy users. Conclusions: The number of young people who need to be exposed to an intervention to generate NNP and prevent one case of schizophrenia will be even larger. The public health importance of preventing cannabis to reduce schizophrenia or psychosis remains uncertain. More attention should be given to testing the hypothesis that cannabis is related causally to psychotic outcomes, and to considering what strategies will be the most effective in reducing heavy cannabis use among young people. Copyright 2009, Society for the Study of Addiction.

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.

Alcohol price and intoxication in college bars.

O'Mara RJ; Thombs DL; Wagenaar AC; Rossheim ME; Merves ML; Hou W et al. *Alcoholism: Clinical and Experimental Research* 33(11): 1973-1980, 2009. (24 refs.)

Background: Many population studies find that alcohol prices are inversely related to alcohol consumption and alcohol-related problems, including among college students and young adults. Yet, little is known about the "micro-level" effects of alcohol price on the behavior of individual consumers in natural drinking settings such as college bars. Therefore, we assessed patron's cost per gram of ethanol consumed at on-premise drinking establishments and its association with intoxication upon leaving an establishment. Methods: On 4 consecutive nights during April 2008, data were collected from 804 patrons exiting 7 on-premise establishments in a bar district located adjacent to a large university campus in the southeastern United States. Anonymous interview and survey data were collected as well as breath alcohol concentration (BrAC) readings. We calculated each patron's expenditures per unit of ethanol consumed based on self-reported information regarding the type, size, number, and cost of consumed drinks. Results: A multivariable model revealed that a 10-cent increase in cost per gram of ethanol at on-premise establishments was associated with a 30% reduction in the risk of exiting an establishment intoxicated (i.e., BrAC \geq 0.08 g/210 l). Conclusions: The results are consistent with economic theory and population-level research regarding the price elasticity of alcoholic beverages, which show that increases in alcohol prices are accompanied by less alcohol consumption. These findings suggest that stricter regulation of the drink discounting practices of on-premise drinking establishments would be an effective strategy for reducing the intoxication levels of exiting patrons. Copyright 2009, Research Society on Alcoholism.

Preventing growth in amphetamine use: Long-term effects of the Midwestern Prevention Project (MPP) from early adolescence to early adulthood.

Riggs NR; Chou CP; Pentz MA. *Addiction* 104(10): 1691-1699, 2009. (38 refs.)

Aim: The aim of the current study was to examine the long-term effect of an early adolescent substance abuse prevention program on trajectories and initiation of amphetamine use into early adulthood. Design: Eight middle schools were assigned randomly to a program or control condition. The randomized controlled trial followed participants through 15 waves of data, from ages 11-28 years. This longitudinal study design includes four separate periods of development from early adolescence to early adulthood. Setting: The intervention took place in middle schools. Participants: A total of 1002 adolescents from one large mid-western US city were the participants in the study. Intervention: The intervention was a multi-component community-based program delivered in early adolescence with a primary emphasis on tobacco, alcohol and marijuana use. Measures: At each wave of data collection participants completed a self-report survey that included questions about life-time amphetamine use. Findings: Compared to a control group, participants in the Midwestern Prevention Project (MPP) intervention condition had reduced growth (slope) in amphetamine use in emerging adulthood, a lower amphetamine use intercept at the commencement of the early adulthood and delayed amphetamine use initiation. Conclusions: The pattern of results suggests that the program worked first to prevent amphetamine use, and then to maintain the preventive effect into adulthood. Study findings suggest that early adolescent substance use prevention programs that focus initially on the 'gateway' drugs have utility for long-term prevention of amphetamine use. Copyright 2009, Society for the Study of Addiction.

Preventing substance use among adolescent girls: 1-year outcomes of a computerized, mother-daughter program.

Schinke SP; Fang L; Cole KC. *Addictive Behaviors* 34(12): 1060-1064, 2009. (32 refs.)

This study tested a computerized gender-specific, parent-involvement intervention program grounded in family interaction theory and aimed at preventing substance use among adolescent girls. Following program delivery and 1 year later, girls randomly assigned to the intervention arm improved more than girls in a control arm on variables associated with reduced risks for substance use, including communication with their mothers, knowledge of

family rules about substance use, awareness of parental monitoring of their discretionary time, non-acceptance of peer substance use, problem-solving skills, and ability to refuse peer pressure to use substances. Relative to control-arm girls, those in the intervention arm also reported less 30-day use of alcohol and marijuana and lower intentions to smoke, drink, and take illicit drugs in the future. Girls' mothers in the intervention arm reported greater improvements after the program and relative to control-arm mothers in their communication with their daughters, establishment of family rules about substance use, and monitoring of their daughters' discretionary time. Study findings lend support to the potential of gender-specific, parent-involvement, and computerized approaches to preventing substance use among adolescent girls. Copyright 2009, Elsevier Science.

Did youth smoking behaviors change before and after the shutdown of Minnesota Youth Tobacco Prevention Initiative?

Alesci NL; Forster JL; Erickson DJ. *Nicotine & Tobacco Research* 11(10): 1196-1204, 2009. (48 refs.) No previous studies document the effects of both comprehensive tobacco control and its defunding on youth smoking. This study tests the effect of the youth-focused Minnesota Youth Tobacco Prevention Initiative (MYTPI) and its shutdown on youth smoking and determines whether these effects differed by age. The Minnesota Adolescent Community Cohort is a population-based, observational study designed to evaluate the MYTPI. The sample included cohorts of youth aged 12-16 years at baseline in Minnesota (N = 3,636) and a comparison group in six other Midwestern states (n = 605). Biannual surveys assessed youth smoking from October 2000, 5 months after the MYTPI launch, through October 2005, 2 years postshutdown. Adjusted piecewise linear trajectories predicted smoking stage (measured on a 1-6 continuum) comparing Minnesota with a comparison group during the MYTPI (Slope 1) and postshutdown (Slope 2) for each baseline age cohort. Analysis then compared baseline age cohorts with each other by centering their intercepts on age 16. Neither slope of smoking stage differed between Minnesota and comparison groups, showing no period effects for the MYTPI or shutdown. However, younger cohorts, with early teen experience of MYTPI, smoked less than older cohorts by the same age. Mean smoking stage at age 16 differed by almost a half stage from the youngest (2.04) to the oldest (2.46) age cohort. The study offers no evidence of period effects for the MYTPI or its shutdown. Design limitations, national

or continued post-MYTPI statewide tobacco control efforts, or program flaws could explain the findings. Copyright 2009, Oxford University Press.

Overview of preventive interventions addressing underage drinking state of the evidence and steps toward public health impact.

Spoth R; Greenberg M; Turrise R. *Alcohol Research & Health* 32(1): 53-66, 2009. (81 refs.)

Because underage drinking is a serious public health concern and associated with numerous detrimental consequences, many interventions to prevent underage drinking have been developed. However, the effectiveness of all these interventions has not been proven. A recent review of the relevant literature that used stringent criteria for the types of studies and interventions included, as well as for the evaluation and classification of the studies, found that out of more than 400 studies screened, only 127 could be evaluated for efficacy and only 41 showed some evidence of effects. In addition, several areas were identified in which intervention research could be strengthened. For example, increased coverage is needed for understudied areas of intervention (e.g., specific types of interventions or interventions in specific populations). Other aspects of the knowledge base in this area that can benefit from further improvement include, among others, the availability of longitudinal studies, availability of information on alcohol-specific outcomes, or availability of replication studies. The standards for determining and reporting evidence of effectiveness in different studies also need to be clarified. Finally, prevention research needs to adopt public health impact-oriented models to accurately determine the potential of existing interventions to prevent underage drinking and its consequences. Copyright 2009, National Institute on Alcohol Abuse and Alcoholism.

Universal intervention as a protective shield against exposure to substance use: Long-term outcomes and public health significance.

Spoth R; Gyll M; Shin C. *American Journal of Public Health* 99(11): 2026-2033, 2009. (52 refs.)

Objectives. We examined universal preventive intervention effects on adolescents' exposure to opportunities for substance use and on illicit substance use in the long term. Methods. Public schools (N = 22) were randomly assigned to the Iowa Strengthening Families Program (ISFP) or a control condition. We used odds ratio (OR) calculations and structural modeling to test the effects of the ISFP in the 6th grade on exposure to substance use across adolescence, as well as on 12th-grade illicit substance

use occurring via reductions in exposure. Results. The ISFP was associated with reduced exposure to illicit substance use (1.25 \leq OR \leq 2.37) that was, in turn, associated with reduced 12th-grade substance use (2.87 \leq OR \leq 6.35). The ISFP also reduced the rate of increase in exposure across adolescence (B = -0.37; P < .001), which was associated with the likelihood of 12th-grade illicit substance use (B = 0.30; P = .021), with a significant indirect effect (B = -0.11; P = .048). Conclusions. The ISFP in the 6th grade reduced substance use through a "protective shield" of reduced exposure. The relative reduction rate was 49%, which suggests that universal prevention shields can contribute to significant reductions in illicit substance use among adolescents. Copyright 2009, American Public Health Association.

Prevention and drug treatment.

Testa MF; Smith B. *Future of Children* 19(2): 147-168, 2009. (65 refs.)

Evidence linking alcohol and other drug abuse with child maltreatment, particularly neglect, is strong. But does substance abuse cause maltreatment? According to Mark Testa and Brenda Smith, such co-occurring risk factors as parental depression, social isolation, homelessness, or domestic violence may be more directly responsible than substance abuse itself for maltreatment. Interventions to prevent substance abuse-related maltreatment, say the authors, must attend to the underlying direct causes of both. Research on whether prevention programs reduce drug abuse or help parents control substance use and improve their parenting has had mixed results, at best. The evidence raises questions generally about the effectiveness of substance abuse services in preventing child maltreatment. Such services, for example, raise only marginally the rates at which parents are reunified with children who have been placed in foster care. The primary reason for the mixed findings, say Testa and Smith, is that almost all the parents face not only substance abuse problems but the co-occurring issues as well. To prevent recurring maltreatment and promote reunification, programs must ensure client progress in all problem areas. At some point in the intervention process, say Testa and Smith, attention must turn to the child's permanency needs and well-being. The best evidence to date suggests that substance-abusing parents pose no greater risk to their children than do parents of other children taken into child protective custody. It may be sensible, say the authors, to set a six-month timetable for parents to engage in treatment and allow twelve to eighteen months for them to show sufficient progress in all identified problem areas. After that, permanency plans

should be expedited to place the child with a relative caregiver or in an adoptive home. Investing in parental recovery from substance abuse and dependence, the authors conclude, should not substitute for a comprehensive approach that addresses the multiple social and economic risks to child well-being beyond the harms associated with parental substance abuse. Copyright 2009, Princeton University.

Infusing neuroscience into the study and prevention of drug misuse and co-occurring aggressive behavior (review).

Fishbein D; Tarter R. *Substance Use & Misuse* 44(9/10, Special Issue): 1204-1235, 2009. (179 refs.)

The etiology of behavioral precursors to substance misuse and aggression is viewed from the perspective of a developmental, multifactorial model of complex disorders. Beginning at conception, genetic and environmental interactions have potential to produce a sequence of behavioral phenotypes during development that bias the trajectory toward high-risk outcomes. One pathway is theorized to emanate from a deviation in neurological development that predisposes children to affective and cognitive delays or impairments then, in turn, generate dysregulatory behaviors. The plasticity of these neurobiological systems is highly relevant to the prevention sciences; their functions are reliant upon environmental inputs and can be altered, for better or for worse. contingent upon the nature of the inputs. Thus, social contextual factors confer significant influence on the development of this neural network and behavioral outcomes by increasing risk for, or protecting(1) against, dysregulatory outcomes. A well-designed intervention can exploit the brain's plasticity by targeting biological and social factors at sensitive time points to positively influence emergent neurobiological functions and related behaviors. According, prevention research is beginning to focus on perturbations in developmental neural plasticity during childhood that increase the likelihood of risky behaviors and may also moderate intervention effects on behavior. Given that the more complex features of neurobiological functions underlying drug misuse and aggression (e.g., executive cognitive function, coping skills, affect regulation) do not coalesce until early adulthood when prefrontal-limbic brain networks consolidate, it is critical that mechanisms underlying developmental risk factors are identified. An empirically driven prevention approach, thus, may benefit from consideration of (i) the type, effect, and developmental timing of the environmental impact on the brain, and (ii) the type and effect on brain function, and developmental timing of the intervention. This

translational approach promises to eventually offer some direction for the design of effective interventions to prevent drug misuse and concomitant aggression. Copyright 2009, Taylor & Francis.

Toward prevention of alcohol exposed pregnancies: Characteristics that relate to ineffective contraception and risky drinking.

Fabbri S; Farrell LV; Penberthy JK; Ceperich SD; Ingersoll KS. *Journal of Behavioral Medicine* 32(5): 443-452, 2009. (49 refs.)

Alcohol-exposed pregnancy is a leading cause of preventable birth defects in the United States. This paper describes the motivational patterns that relate to risky drinking and ineffective contraception, two behaviors that can result in alcohol-exposed pregnancy. As part of an intervention study aimed at reducing alcohol-exposed pregnancy 124 women were recruited and reported demographic characteristics, readiness to change, stages of change, drinking, contraception, and sexual behavior history. Our results showed the following. Drinking: A significant positive correlation was found between the number of drinks consumed in 90 days and the Importance to reduce drinking ($r = .23$, $p = .008$). A significant negative correlation between number of drinks and confidence to reduce drinking ($r = -.39$, $p = .000$) was found as well. Significant differences were found in the total number of drinks consumed in 90 days between the five stages of change ($F = (4,118)$, 3.12 , $p = .01$). Women in Preparation reported drinking a significantly higher number of drinks than women in other stages of change. Contraception: There were significant negative correlations between ineffective contraception and Importance ($r = -.38$, $p = .00$), confidence ($r = -.20$, $p = .02$) and Readiness ($r = -.43$, $p = .00$) to use contraception effectively. Significant differences in contraception ineffectiveness were found for women in different stages of change ($F = (4,115)$ 8.58 , $p = .000$). Women in Precontemplation reported significantly higher levels of contraception ineffectiveness compared to women in other stages of change. Results show a clear relationship between higher alcohol consumption and higher levels of motivation to reduce drinking. In contrast, higher levels of ineffective contraception were related to

lower levels of motivation to use contraception effectively. This suggests risky drinking may be better targeted with brief skills building interventions and ineffective contraception may require interventions that enhance problem awareness and motivation. Copyright 2009, Springer.

Influence of participation in leisure time physical activity on tobacco and alcohol consumption among former athletes and non athletes.

Woitak-Slubowska D. *Journal of Human Kinetics* 21: 119-126, 2009. (38 refs.)

The purpose of the study was to recognise relationships between participation in leisure time physical activity (LTPA) and smoking and alcohol consumption among former athletes (FA) and individuals with no sports experience (NA). In Spring-Summer periods in the years 1997-2002 within the purposively sampled groups of FA ($n=312$) and people NA ($n=417$) - an anonymous survey was conducted concerning their socioeconomic status, participation in LTPA, smoking and alcohol consumption. The age of examined FA and NA ranged from 18 to 51 years. Respondents' participation in LTPA was measured as follows: frequency, time and forms of LTPA. For evaluation of respondents' smoking status in the last six months the following categories were used: 1 do not smoke, I smoked occasionally, I smoked 1 to 10 cigarettes/day, and I smoked more than 10 cigarettes/day. Variables describing alcohol consumption involve frequency of drinking alcohol beverages and type of consumed alcohol beverages. It has shown that among male FA was a significantly lower rate of non-smokers, as compared to male NA. No correlation was found between LTPA and smoking and alcohol consumption among women FA and NA. Negative correlation between participation in LTPA and smoking and alcohol consumption was found in both male groups. The results obtained allow, us to draw, a conclusion that promoting participation in competitive sports or LTPA is a valuable means to complement intervention programmes focused on the reduction and elimination of tobacco smoking and alcohol consumption addressed to men. Copyright 2009, Academy of Physical Education- Katowice.