

# Library Watch on nicotine

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spring 2010

## **In alcohol-dependent drinkers, what does the presence of nicotine dependence tell us about psychiatric and addictive disorders comorbidity?**

Strat Y; Ramoz N; Gorwood P. *Alcohol and Alcoholism* 45(2): 167-172, 2010. (44 refs.)

Methods: Drawn from a US national survey of 43,000 adults (The National Epidemiologic Survey on Alcohol and Related Conditions) who took part in a face-to-face interview, data were examined on the 4782 subjects with lifetime alcohol dependence, and comparisons were made between those with and those without nicotine dependence. Results: Nicotine dependence was reported by 48% of the alcohol-dependent respondents. They reported higher lifetime rates of panic disorder, specific and social phobia, generalized anxiety disorder, major depressive episode, manic disorder, suicide attempt, antisocial personality disorder and all addictive disorders than those without nicotine dependence. After controlling for the effects of any psychiatric and addictive disorder, alcohol-dependent subjects with nicotine dependence were more than twice as likely as non-nicotine-dependent, alcohol-dependent subjects to have at least one other lifetime addiction diagnosis (adjusted odds ratio 2.36; 95% confidence interval 2.07-2.68). Conclusions: Nicotine dependence represents a general marker of psychiatric comorbidity, particularly of addictive comorbidity. It may be used as a screening measure for psychiatric diagnoses in clinical practice as well as in future trials. Copyright 2010, Oxford University Press.

## **Randomized crossover trial of the acceptability of snus, nicotine gum, and Zonnic therapy for smoking reduction in heavy smokers.**

Caldwell B; Burgess C; Crane J. *Nicotine & Tobacco Research* 12(2): 179-183, 2010. (11 refs.)

Introduction: Novel approaches to nicotine replacement therapy (NRT) are needed to improve the modest long-term quit rate of 10%. Snus (Swedish tobacco) and Zonnic (oral nicotine sachet) rapidly deliver nicotine via buccal absorption and have potential as NRTs. As a prelude to formal evaluation of either product as a smoking cessation therapy, it is necessary to determine their acceptability and the

willingness of smokers to use them in populations with no history of access to oral tobacco products. Methods: An open-label crossover study of ad libitum snus, Zonnic, and nicotine gum among 63 smokers for 2 weeks each, and smoking reduction if the subjects did not feel the desire to smoke. Diary cards recorded use of products and cigarettes; formal and ad hoc scales measured urges to smoke, withdrawal symptoms, and the sensory quality of the products. Results: Subjects preferred snus and Zonnic over gum. Snus and Zonnic were superior to gum in reducing urges to smoke and caused fewer side effects. All three products suppressed withdrawal symptoms. Subjects reduced their smoking by Ms of 33%, 37%, and 42% during the gum, snus, and Zonnic fortnights, respectively. Discussion: Most subjects reported a strong desire to use Zonnic or snus to quit smoking. Subjects preferred snus and Zonnic, which both had significantly fewer gastrointestinal side effects than gum and resulted in greater reductions in smoking. Snus and Zonnic are effective in suppressing desires to smoke and reducing smoking, and further studies are warranted to investigate their effect on long-term quit rates. Copyright 2010, Oxford University Press.

## **The effect of chewing gum on self-reported nicotine withdrawal: Is it the flavor, the act of chewing, or both?**

Cortez-Garland M; Cohen LM; VanderVeen JW; Cook K. *Addictive Behaviors* 35(3): 224-228, 2010. (24 refs.)

A healthy alternative that has been shown to lessen the severity of nicotine withdrawal symptoms during brief periods of nicotine abstinence (e.g., 3-4 h) is confectionary chewing gum (Cohen and colleagues, 1997, 1999, & 2001). The current study sought to build upon this line of research by examining the impact of chewing gum on nicotine withdrawal severity over an extended period of nicotine abstinence (e.g., 24 h) while also identifying the specific attributes of chewing gum that may be responsible for the reported decreases in withdrawal. Specifically, the acts of chewing, flavor, as well as the combination of the two, were independently examined. Twenty-four dependent cigarette smokers participated in three

experimental conditions (e.g., a flavorless gum base, flavor strips, and flavored chewing gum) as well as a no product control across four weeks while abstaining from smoking for 24 h each week. Using repeated measures ANOVAs, a significant difference in withdrawal severity was reported by participants across conditions,  $F(3, 69) = 2.89$ ,  $p < .05$ . Follow-up analyses revealed that the flavored gum condition yielded significantly lower withdrawal scores than the flavorless gum base and no product control conditions. These findings indicate that chewing gum appears useful in lessening the severity of nicotine withdrawal symptoms over a 24-hour period of nicotine abstinence and that it is a combination of flavor and chewing that appears to lead to this effect. Copyright 2010, Elsevier Science.

### **Establishing the predictive validity of intentions to smoke among preadolescents and adolescents surviving cancer.**

Klosky JL; Tyc VL; Hum A; Lensing S; Buscemi J; Garces-Webb DM et al. *Journal of Clinical Oncology* 28(3): 431-436, 2010. (36 refs.)

**Purpose:** A significant proportion of adults surviving childhood cancer are smokers. Although these estimated rates of smoking are slightly lower than those in the US population, they remain alarmingly high for this high-risk group. The purpose of this study was to examine the predictive validity of adolescent self-reported smoking intentions for later smoking among childhood cancer survivors. **Patients and Methods:** Baseline tobacco intentions were collected from 119 nonsmoking cancer survivors, age 10 to 18 years, who participated in a tobacco-based clinical trial during the late 1990s. Follow-up smoking status was systematically collected annually up to 10 years postintervention (median follow-up, 6.0 years; interquartile range, 3.0 to 6.9 years) as part of clinical survivorship care. **Results:** Twenty-seven participants (22.7%) subsequently initiated tobacco use within 5 years of study enrollment. The 5-year cumulative incidence was 29.8% +/- 6.0% for those who were susceptible to smoking compared with 12.8% +/- 5.4% for those who were committed never smokers ( $P = .022$ ). Past use ( $P < .001$ ) and having friends who smoked ( $P = .038$ ) were also associated (univariate model) with tobacco initiation, and there was a trend for an association for older adolescents ( $P = .073$ ). Every unit increase on the intentions scale was associated with a 17% increase in the risk for tobacco initiation ( $P = .002$ ) after adjusting for age group and past tobacco use in a multivariable model. **Conclusion:** Because early intentions to smoke are predictive of later tobacco use, survivors as young as 10 years of

age who waver in their commitment to remain tobacco abstinent should be targeted for tobacco prevention interventions. Copyright 2010, American Society of Clinical Oncology.

### **Difference in lifetime medical expenditures between male smokers and non-smokers.**

Hayashida K; Imanaka Y; Murakami G; Takahashi Y; Nagai M; Kuriyama S et al. *Health Policy* 94(1): 84-89, 2010. (19 refs.)

**Objectives:** It is controversial whether smokers have higher lifetime medical expenditures than non-smokers, because smokers have high annual medical expenditures but comparatively short lives. We examined differences in lifetime medical expenditures between them. **Methods:** We constructed life tables for male smokers and non-smokers from 40 years of age. We calculated average annual medical expenditures of them categorized by survivors and deceased, which were used to examine differences in lifetime medical expenditures between them and perform sensitivity analyses. **Results:** Smokers had a higher mortality rate, shorter life expectancy, and generally higher annual medical expenditures than non-smokers. We also observed tendencies for smokers to have higher inpatient expenditures, but non-smokers to have higher outpatient expenditures. Although non-smokers had lower long-term cumulative medical expenditures between 64 and 81 years of age, their lifetime medical expenditures were higher by a minimal amount. **Sensitivity analyses** did not change this result. **Conclusions:** Smoking may not cause increases in lifetime medical expenditures because smokers had lower lifetime medical expenditures than non-smokers. However, it was clear that smokers, especially survivors, often had higher annual medical expenditures than nonsmokers. The importance of tobacco control is still relevant. Copyright 2010, Elsevier Science.

### **Cracking down on youth tobacco may influence drug use.**

Jason LA; Pokorny SD; Adams M; Nihs A; Kim HY; Hunt Y. *Journal of Community Psychology* 38(1): 1-15, 2010. (26 refs.)

This study evaluated the influence of tobacco possession-use-purchase (PUP) law enforcement and illicit drug use and offers. Twenty-four towns were randomly assigned into two conditions. Both conditions focused on reducing minors' access to commercial sources of tobacco. The communities assigned to the experimental condition also increased their PUP law enforcement, whereas among communities in the control condition, PUP law

enforcement remained at low levels. A hierarchical linear modeling analytical approach was selected due to the multilevel data and nested design. The likelihood of a child currently using, drugs, ever having used drugs, or illicit drug offers was lower in the experimental versus control conditions. These outcomes suggest that police efforts to reduce specific substance use behaviors (i.e., underage tobacco use) may have a positive spillover effect and help reduce teen drug use and illicit drug offers. Copyright 2010, John Wiley & Sons.

**Smoking and drinking among college students:  
"It's a package deal".**

Nichter M; Nichter M; Carkoglu A; Lloyd-Richardson E. *Drug and Alcohol Dependence* 106(1): 16-20, 2010. (34 refs.)

Background: This paper reports on qualitative research on smoking in contexts associated with drinking among college students. Although a plethora of survey research has shown a positive association between smoking and alcohol use, little attention has been given to the utility functions of these co-occurring behaviors. Methods: Data are drawn from semi-structured interviews with college freshmen at a large Mid-western university in the U.S. (n = 35). In addition, eleven focus groups with fraternity and sorority members were conducted (n = 70). Interviews and focus groups focused on a range of issues including current smoking behavior, reasons for smoking, and smoking and drinking. Results: A review of qualitative responses reveals that smoking served multiple utility functions for this population including (1) facilitating social interaction across gender, (2) allowing one to structure time and space at a party, (3) enabling "party" smokers to smoke with fewer negative side effects, and (4) helping to calm one down when drunk. Conclusions: Whereas smoking was stigmatized during the context of one's everyday life as a student, at parties while consuming alcohol, smoking was viewed as normative and socially acceptable. Preventive interventions are needed on college campus that target co-substance use and address widespread misperceptions about the harm of tobacco use and addiction. Copyright 2010, Elsevier Science.

**Recent cigarette smoking and assisted reproductive technologies outcome.**

Fuentes A; Munoz A; Barnhart K; Arguello B; Diaz M; Pommer R. *Fertility and Sterility* 93(1): 89-95, 2010. (29 refs.)

Objective: To assess the association between recent cigarette smoking (CS) in female and male partners

and assisted reproduction technology (ART) outcomes. Design: Cohort prospective study. Setting: University ART program in Chile. Patient(s): One hundred sixty-six couples seeking pregnancy through ART. Intervention(S): Follicular fluid (FF) and serum cotinine concentrations were measured in female partners. Self-reported CS data were collected through personal interviews. Main Outcome Measure(s): The association between female recent smoking, assessed by FF and serum cotinine concentrations, and ART outcomes, such as number of ova retrieved and implantation rates, and the association between self-reported male recent smoking and live birth rates. Result(s): A significant age-adjusted association between increased FF cotinine level and decreased number of ova retrieved was found. The male partner's smoking habit significantly decreased the live birth rate from 21.1% to 7.8%. Serum cotinine concentrations paralleled those of FF. Conclusion(s): The hypothesis of a detrimental effect of recent female smoking over implantation rates is rejected. However, recent male smoking is associated with significantly decreased live birth rates even after adjusting for confounders. Female recent smoking was significantly associated with decreased number of retrieved ova. Copyright 2010, Elsevier Science.

**Prevalence and predictors of smoke-free policy implementation and support among owners and managers of multiunit housing.**

King BA; Travers MJ; Cummings KM; Mahoney MC; Hyland AJ. *Nicotine & Tobacco Research* 12(2): 159-163, 2010. (21 refs.)

Introduction: Exposure to secondhand smoke causes disease and premature death. Although many municipalities have instituted policies prohibiting smoking in public areas, personal living areas remain largely unregulated. Individuals who reside in multiunit housing (MUH) facilities where smoking is permitted are particularly susceptible to involuntary exposure. This study assessed the prevalence and predictors of smoke-free policy implementation and support among owners and managers of MUH throughout Western New York State. Methods: A telephone survey was administered to a sample of owners and managers of MUH buildings in the Erie and Niagara counties, New York. A total of 127 respondents completed the survey between March and July 2008 (62% response rate). Logistic regression was used to assess predictors of policy implementation and support, while adjusting for participant smoking status, quantity of units owned/managed, government subsidy status, as well as building age, construction type, and size. Results: Only 13% of participants

reported smoking restrictions within any of their buildings. Among those without a smoke-free policy, 75% would be interested in restricting smoking in at least one of their units, with interest being significantly higher among participants with government-subsidized units (odds ratio = 3.12, 95% CI = 1.14-8.52). Primary barriers to policy implementation included concern over increased vacancy (27%) and a decreased market base (21%). Discussion: Few Western New York MUH owners and managers have implemented smoke-free policies in their buildings, but most are receptive to doing so. Therefore, opportunities exist for interventions to enhance policy acceptance, implementation, and enforcement among these individuals. Copyright 2010, Oxford University Press.

### **Smoking and male fertility: A contemporary review. (review).**

Ragheb AM; Sabanegh ES. *Archives of Medical Science* 5(1A, Special Issue): S13-S19, 2009. (63 refs.) The turn of the past century has witnessed a remarkable increase in public awareness of the potential hazards of many environmental factors to general health. Extensive research efforts have focused on the effect of smoking on male reproduction. Smoking has been proved to cause deleterious effects on male fertility at various levels, starting from the early stages of spermatogenesis to the post-natal period. We review the current literature on these adverse effects on male fecundity extending our focus beyond the basic semen analysis to sperm DNA damage and the implications of this damage on pregnancy outcomes. Copyright 2009, Termedia Publishing.

### **The disproportionate cost of smoking for African Americans in California.**

Max W; Sung HY; Tucker LY; Stark B. *American Journal of Public Health* 100(1): 152-158, 2010. (46 refs.)

Objectives. We estimated the economic impact of smoking on African Americans in California in 2002, including smoking-attributable health care expenditures and productivity losses from smoking-caused mortality. Methods. We estimated econometric models of smoking-attributable ambulatory care, prescription drugs, inpatient care, and home health care using national and state survey data. We assessed smoking-attributable mortality using epidemiological models. Results. Adult smoking prevalence for African Americans was 19.3% compared with 15.4% for all Californians. The health care cost of smoking

was \$626 million for the African American community. A total of 3013 African American Californians died of smoking-attributable illness in 2002, representing a loss of over 49000 years of life and \$784 million in productivity. The total cost of smoking for this community amounted to \$1.4 billion, or \$1.8 billion expressed in 2008 dollars. Conclusions. Although African Americans account for 6% of the California adult population, they account for over 8% of smoking-attributable expenditures and fully 13% of smoking-attributable mortality costs. Our findings confirm the need to tailor tobacco control programs to African Americans to mitigate the disproportionate burden of smoking for this community. Copyright 2010, American Public Health Association.

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