

Library Watch on nicotine

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A systematic review of the impact of work environment on smoking cessation, relapse and amount smoked. (review).

Albertsen K; Borg V; Oldenburg B. *Preventive Medicine* 43(4): 291-305, 2006. (50 refs.)

Background. Smoking is an important issue for the majority of the world's working population. It is important to explore in which ways the workplace might contribute to changes in smoking status and smoking behavior. The present article provides a systematic review and quality assessment of studies that have addressed the impact of factors in the work environment on smoking behavior. **Methods.** An evaluation of the methodological quality of 22 prospective studies was based on 14 explicit criteria, which included features of study design, statistical analysis, sampling issues and measurement. The level of scientific evidence was evaluated for each study. **Results.** There was strong evidence for an effect of the work environment on the amount smoked, but insufficient or mixed evidence regarding cessation and relapse. Summarizing the results, high job demands were associated with higher amount smoked and with increased likelihood of cessation. Resources at work and social support were positively associated with cessation and negatively associated with relapse and the amount smoked. **Conclusions.** The results supported the overall hypothesis that the work environment influences aspects of smoking behavior. **Recommendations** are made for more intervention studies where changes in work environment are carried out in combination with health promotion interventions. Copyright 2006, Elsevier Science.

Does maternal smoking during pregnancy predict the smoking patterns of young adult offspring? A birth cohort study.

Al Mamun A; O'Callaghan FV; Alati R; O'Callaghan M; Najman JM; Williams GM et al. *Tobacco Control* 15(6): 452-457, 2006. (32 refs.)

Objective: To examine the association between maternal smoking during pregnancy and the development of smoking behaviour patterns among young adult offspring. **Method:** Data were from the Mater- University of Queensland Study of Pregnancy (MUSP), a birth cohort of 7223 mothers and children

enrolled in Brisbane, Australia, in 1981. The development of smoking behaviours (early or late onset, or combination of onset and prevalence patterns) among offspring at age 21 years with different patterns of maternal smoking (never smoked, smoked before or after pregnancy but not during pregnancy, or smoked during pregnancy) were compared. Maternal smoking information was derived from the prospectively collected data from the beginning of pregnancy until the child was 14 years of age. Analyses were restricted to the 3058 mothers and children whose smoking status was reported. **Results:** The proportion of young adults who smoked regularly, either with early onset or late onset, was greater among those whose mothers had smoked during pregnancy compared with those whose mothers had never smoked. The smoking patterns among those adolescent offspring whose mothers stopped smoking during pregnancy, but who then smoked at other times during the child's life, were similar to those whose mothers had never smoked. This association was robust to adjustment for a variety of potential covariates. **Conclusions:** The findings provide some evidence for a direct effect of maternal smoking in utero on the development of smoking behaviour patterns of offspring and provide yet another incentive to persuade pregnant women not to smoke. Copyright 2006, BMJ Publishing Group.

Effects of a tobacco ban on long-term psychiatric patients.

Harris GT; Parle D; Gagne J. *Journal of Behavioral Health Services & Research* 34(1): 43-55, 2007. (50 refs.)

A total ban on all tobacco products was implemented in a diverse psychiatric institution. A post hoc evaluation examined the effect of the ban on long-term patients by comparing their characteristics the year before the ban to the year after. Several variables measuring physical health, psychiatric symptomatology, feelings of well-being, and interpersonal conflict were coded with very high reliability from health records. For the majority of patients who were in the maximum security forensic division, the tobacco ban was associated with almost no detectable ill effects with some clear benefits. Among the remainder

of the long-term patients, the ban might have been associated with a temporary increase in physical aggression towards staff members. It was concluded that successful implementation, and the avoidance of ill effects, depended entirely on the success staff members had in actually preventing patient access to tobacco. Copyright 2007, Springer.

Global use of alcohol, drugs and tobacco. (review).

Anderson P. *Drug and Alcohol Review* 25(6): 489-502, 2006. (138 refs.)

Humans have always used drugs, probably as part of their evolutionary and nutritional heritage. However, this previous biological adaptation is unlikely to be so in the modern world, in which 2 billion adults (48% of the adult population) are current users of alcohol, 1.1 billion adults (29% of the adult population) are current smokers of cigarettes and 185 million adults (4.5% of the adult population) are current users of illicit drugs. The use of drugs is determined largely by market forces, with increases in affordability and availability increasing use. People with socio-economic deprivation, however measured, are at increased risk of harmful drug use, as are those with a disadvantaged family environment, and those who live in a community with higher levels of substance use. Substance use is on the increase in low-income countries which, in the coming decades, will bear a disproportionate burden of substance-related disability and premature death. Copyright 2006, Taylor & Francis.

Impediment profiling for smoking cessation:

Application in the worksite.

O'Connell M; Comerford BP; Wall HK; Yanchou-Njike V; Faridi Z; Katz DL. *American Journal of Health Promotion* 21(2): 97-100, 2006. (11 refs.)

Purpose. To replicate results of a pilot smoking cessation study and demonstrate applicability to a worksite setting. **Methods.** Smokers employed by a community hospital participated in an onsite smoking cessation program. Participants used an "impediment profiling" instrument to rate Personal barriers to cessation and were assigned to between one and seven interventions. Cessation was defined as carbon monoxide concentration in expired air of ≤ 10 ppm. **Results.** Fifty-one employees participated. Subjects lost to follow-up were assumed to be smoking, resulting in a 39.2 %-year quit rate, -47.5 % of program completers (n = 40) were smoke-free at 1 year. Se (reported quit rate at 2.5 years was 25.5 % (17 lost to attrition assumed to be smoking) with 38.2 % of program completers smoke-free. **Discussion.** This study suggests that impediment profiling holds promise for smoking cessation and demonstrates

feasibility in a worksite setting. Further evaluation of this intervention in the context of randomized controlled trials is warranted. Copyright 2006, PNG Publications.

Internet-based smoking cessation initiatives - Availability, varieties, and likely effects on outcomes. (review).

McDaniel AM; Stratton RM. *Disease Management & Health Outcomes* 14(5): 275-285, 2006. (70 refs.)

Tobacco use remains widespread in every nation in the world. Worldwide, more than 1.3 billion people use tobacco products. Many smokers who attempt to quit need cessation assistance such as education, motivation, counseling, and pharmacologic treatments, but many lack access to these resources because of geographic isolation, economic constraints, and cultural barriers. As global Internet use continues to grow, Internet-based smoking cessation programs are a promising strategy for reaching smokers worldwide. The purpose of this article is to examine Internet-based initiatives to assist smokers to quit. The advantages and disadvantages of this type of forum, the likely effectiveness in achieving smoking cessation, and the impact on clinical and cost outcomes are discussed. The primary advantage of Internet-based smoking cessation initiatives is their potential public health reach. Disadvantages include the potential for privacy and security breaches, concerns about inferior quality of information, and failure of websites to utilize online technologies. Internet-based smoking cessation programs can extend the clinical encounter, in essence allowing the provider to offer 'virtual' support to the patient who is attempting to quit smoking. The potential of Internet technology to reach large numbers of smokers and provide reliable information for quitting is only beginning to be realized. Few studies have rigorously examined the question of efficacy, and many questions remain unanswered. To illustrate the important features of Internet-based smoking cessation initiatives, this review evaluated existing online programs. A smoking cessation program was defined as a structured, multi-component treatment plan specifically designed to aid in quitting. Twelve websites were identified from an Internet search (using an Internet search engine) that met our criteria. The interactive capabilities of Internet applications show great promise for customizing a smoking cessation plan 'on-the-fly' for individuals seeking support in quitting, but few websites offer programs that incorporate tailored approaches. Thus, patients should look to healthcare providers to help them understand the benefits and limitations of Internet-based

information resources for smoking cessation. Copyright 2006, Adis International Ltd.

Modeling the effect of alcohol on smoking lapse behavior.

McKee SA; Krishnan-Sarin S; Shi J; Mase T; O'Malley SS. *Psychopharmacology* 189(2): 201-210, 2006. (75 refs.)

Objectives: The primary aim of this project was to examine the role of alcohol use in smoking lapse behavior, as alcohol consumption is a known risk factor for poor smoking cessation outcomes. **Materials and methods:** We have developed a novel human laboratory model to examine two primary aspects of alcohol-mediated tobacco relapse: (1) Does alcohol facilitate the initiation of the first cigarette? (2) Once the first cigarette is initiated, does alcohol facilitate subsequent smoking? Using a within-subject design, 16 daily smokers who were also heavy social drinkers received a priming drink (0.03 g/dl or taste-masked placebo) and then had the option of initiating a tobacco self-administration session or delaying initiation by 5-min increments for up to 50 min in exchange for monetary reinforcement. Subsequently, the tobacco self-administration session consisted of a 1-h period in which subjects could choose to smoke their preferred brand of cigarettes using a smoking topography system or receive monetary reinforcement for cigarettes not smoked. Alcohol craving, tobacco craving, subjective reactivity to alcohol, and nicotine withdrawal were assessed as secondary outcomes. **Results:** Results demonstrated that after consuming the alcohol beverage, subjects were less able to resist the first cigarette and initiated their smoking sessions sooner, and smoked more cigarettes compared to the placebo beverage. These findings have implications for smoking cessation in alcohol drinkers and model development to assess smoking lapse behavior. Copyright 2006, Springer.

Pictures worth a thousand words: Noncommercial tobacco content in the lesbian, gay, and bisexual press.

Smith EA; Offen N; Malone RE. *Journal of Health Communication* 11(7): 635-649, 2006. (90 refs.)

Smoking prevalence in the lesbian, gay, and bisexual (LGB) community is higher than in the mainstream population. The reason is undetermined; however, normalization of tobacco use in the media has been shown to affect smoking rates. To explore whether this might be a factor in the LGB community, we examined noncommercial imagery and text relating to tobacco and smoking in LGB magazines and newspapers. Tobacco-related images were frequent and overwhelmingly positive or neutral about tobacco

use. Images frequently associated smoking with celebrities. Text items unrelated to tobacco were often illustrated with smoking imagery. Text items about tobacco were likely to be critical of tobacco use; however, there were three times as many images as text items. The number of image items was not accounted for by the number of text items: nearly three quarters of all tobacco-related images (73.8%) were unassociated with relevant text. Tobacco imagery is pervasive in LGB publications. The predominant message about tobacco use in the LGB press is positive or neutral; tobacco is often glamorized. Noncommercial print images of smoking may normalize it, as movie product placement does. Media advocacy approaches could counter normalization of smoking in LGB-specific media. Copyright 2006, Taylor & Francis.

Prevalence of DSM/ICD-defined nicotine dependence. (review).

Hughes JR; Helzer JE; Lindberg SA. *Drug and Alcohol Dependence* 85(2): 91-102, 2006. (87 refs.)

We conducted a qualitative review to estimate for adults (1) the lifetime and current prevalence of DSM/ICD-defined nicotine dependence and (2) the prevalence of individual DSM/ICD dependence criteria. Systematic computer searches and other methods located eleven population-based surveys of adults (≥ 18 year olds) and two of young adults (18-30 year olds). In the USA and Germany, about 25% of adults had been dependent on nicotine in their lifetime, including 15% who were currently dependent. Similar or higher rates were seen in Asian men but $< 5\%$ of Asian women had been dependent. About a third of ever-smokers and half of current smokers either had been or were currently dependent on nicotine and this did not consistently differ by age, country or sex. Impaired control over tobacco use was the most commonly endorsed criteria and giving up activities to use and spending lots of time with nicotine were the least commonly endorsed. Nicotine dependence is one of the most common mental disorders; however, about half of current smokers do not meet DSM/ICD dependence criterion. Copyright 2006, Elsevier Science.

Smoking among shift workers: More than a confounding factor.

van Amelsvoort LGPM; Jansen NWH; Kant I. *Chronobiology International* 23(6): 1105-1113, 2006. (21 refs.)

In studies on the cardiovascular disease risk among shift workers, smoking is considered to be a confounding factor. In a study of 239 shift and 157 daytime workers, it was found that shift work was

prospectively related to increased cigarette consumption, indicating that smoking might be in the causative pathway; however, the number of study subjects was too low to warrant sound conclusions. Therefore, data from the Maastricht Cohort study were used to investigate the longitudinal relation between smoking and shift work in a much larger population. In this study, a total of 12,140 employees were followed for two years by means of self-administered questionnaires. The authors compared workers who normally worked during daytime hours only (74%) with those who worked other than day shifts (26%). Logistic regression analyses were performed, adjusting for demographic factors of age, gender, and educational level to evaluate the risk of starting to smoke (n=25) in the group of non-smoking workers and the risk of quitting (n=318) in the group of smoking workers. Logistic regression analysis showed a significant association between shift work and taking up smoking during the two-year follow-up (odds ratio: 1.46, p =0.03). The risk to stop smoking was somewhat lower in shift workers (odds ratio: 0.91) but not statistically significant (p =0.5). To conclude, this study showed that, independent of educational level, shift workers are more prone to start smoking. This finding might have important implications for studies on the health effects of shift workers and for possible interventions aimed at the reduction of the excess health risk among shift workers. Copyright 2006, Taylor & Francis.

The anesthesia preoperative assessment: An opportunity for smoking cessation intervention.

Quraishi SA; Orkin FK; Roizen MF. *Journal of Clinical Anesthesia* 18(8): 635-640, 2006. (56 refs.) Smoking is the single most cause of preventable disease and premature death in the United States. In this paper, we discuss potential hazards that the anesthesiologist should be aware of when caring for patients who abuse tobacco. A review of recent preoperative smoking cessation initiatives is also provided in addition to recommendations on how

anesthesiologists may use the preoperative visit as an opportunity to play a more active role in reducing the burden of tobacco-related disease. Copyright 2006, Elsevier Science.

New lower nicotine cigarettes can produce compensatory smoking and increased carbon monoxide exposure.

Strasser AA; Lerman C; Sanborn PM; Pickworth WB; Feldman EA. *Drug and Alcohol Dependence* 86(2/3): 294-300, 2007. (43 refs.)

Potential reduced exposure products (PREPs) are marketed as a means to reduce exposure to tobacco toxicants. Quest (R) cigarettes, a new type of PREP, use genetically modified tobacco to provide a nicotine step-down approach, and are available as 0.6, 0.3 and 0.05 mg nicotine cigarettes. However, these cigarettes deliver equivalent levels of tar (10 mg). Prior research on low nicotine cigarettes suggests smokers will compensate for lower nicotine delivery by increasing their puffing behavior to extract more nicotine. This study tested the hypothesis that compensatory smoking will occur with this PREP as nicotine levels decrease, increasing exposure to tobacco toxins. Fifty smokers completed a within-subject human laboratory study investigating the effect of cigarette nicotine level on smoking behavior. Cigarette nicotine level was double-blinded and order of presentation counter-balanced. Breath carbon monoxide (CO) boost was used as a biomarker of smoke exposure; total puff volume to assess smoking behavior. Total puff volume was greatest for the 0.05 mg nicotine cigarette and CO boost was moderately greater after smoking the 0.3 and 0.05 mg cigarettes compared to the 0.6 mg nicotine cigarette. These data provide novel behavioral and biochemical evidence of compensatory smoking when smoking lower nicotine cigarettes. Although marketed as a PREP, increases in CO boost suggest this product can potentially be a harm-increasing product. Copyright 2007, Elsevier Science.