Library Watch on nicotine

www.projectcork.org Fall 2006

Brief report: Pain and readiness to quit smoking cigarettes.

Hahn EJ; Rayens MK; Kirsh KL; Passik SD. *Nicotine & Tobacco Research* 8(3): 473-480, 2006. (36 refs.)

This study explored the relationship between smoking and significant pain. It was hypothesized that readiness to quit smoking would be negatively affected by pain issues. A cross-sectional design was used in this phone-based survey with randomly selected adult smokers. A total of 307 adult participants in the control group from a larger Quit and Win Study participated in the interview. Participants were contacted at home and completed a 20-min phone survey including measures of pain, stress, depressive symptoms, social support, tobacco use status, and readiness to quit smoking. A total of 28% reported significant pain in the past week. Participants who experienced significant pain smoked more cigarettes per day than those who did not report significant pain. However, pain was not associated with readiness to quit. More than half (58%) of those with significant pain were in the contemplation stage of change or higher. The fact that smokers with pain were just as likely as those without significant pain to be ready to quit demands that each individual patient with pain be assessed for readiness to quit so that a tailored approach can be adopted either to motivate the patient to quit or to assist the patient with evidence-based tobacco dependence treatment strategies if he or she wants such treatment. Placing formal tobacco dependence treatment programs within pain clinics and addressing pain in smoking cessation programs is recommended.

Characterizing nicotine withdrawal in pregnant cigarette smokers.

Heil SH; Higgins ST; Mongeon JA; Badger GJ; Bernstein IM. *Experimental and Clinical Psychopharmacology* 14(2): 165-170, 2006. (24 refs.)

Maternal smoking is a leading preventable cause of poor pregnancy outcomes and infant morbidity and mortality. Whereas pregnancy has been thought of as a "window of opportunity" when women are more motivated to change health behaviors such as smoking, only 20% of pregnant women quit smoking upon learning they are pregnant and remain abstinent at the end of the pregnancy. Greater understanding of possible obstacles to smoking during pregnancy, such as nicotine withdrawal, is needed. The symptoms of nicotine withdrawal have been well characterized in nonpregnant smokers, but there has been only I report conducted during pregnancy, and that was a retrospective study. The aim of the present study was to characterize nicotine withdrawal and craving in pregnant cigarette smokers. These data were collected as part of prospective clinical trials assessing the efficacy of voucher-based incentives to promote abstinence from cigarette smoking during pregnancy and postpartum. The authors examined results from the Minnesota Nicotine Withdrawal Scale (J. R. Hughes & D. K. Hatsukami, 1998) in 27 abstainers (reported no or very low levels of smoking, which was confirmed biochemically) and 21 smokers (smoked at > 80% of their baseline smoking level) during the first 5 days of a cessation attempt. Abstainers reported more impatience, anger, and difficulty concentrating than did smokers. The results also suggest that pregnant smokers generally may have elevated baseline levels of withdrawal, which need to be considered in the design and analysis of future studies.

Cigarette smoking during pregnancy and hyperactive-distractible preschoolers: A follow-up study.

Linnet KM; Obel C; Bonde E; Thomsen PH; Secher NJ; Wisborg K et al. *Acta Paediatrica* 95(6): 694-700, 2006. (30 refs.)

Aim: To study the association between intrauterine exposure to tobacco smoke and behavioural disorders in preschool children, primarily symptoms of inattention, hyperactivity and impulsivity but also hostile-aggressive and anxious-fearful symptoms. Methods: We conducted a follow-up study in 1355 singletons born to Danish-speaking mothers. Information on smoking habits during pregnancy and other lifestyle factors was obtained from self-administered questionnaires filled in during second and third trimester. Approximately 3.5 years later, the parents provided information on their child's behaviour using the self-administered Preschool Behaviour Questionnaire. The children were categorized into

three not mutually exclusive behaviour groups: hyperactive - distractible (13.6%), hostile - aggressive (4.6%), and anxious-fearful (6.4%) children. Results: Compared with children of non-smokers, children born to women who smoked 10 or more cigarettes per day had a 60% increased risk of hyperactivity and distractibility perceived by the parents (OR 1.6; 95% CI 1.0 - 2.3; P < 0.05). The results were adjusted for maternal lifestyle factors and socioeconomic characteristics. Additional adjustment for perinatal factors and parental psychiatric hospitalization did not change the results substantially (OR 1.7; 95% CI 1.1-2.6). We found no statistically significant association between maternal smoking in pregnancy and hostile - aggressive and anxious-fearful behaviour in the offspring. Conclusion: Exposure to tobacco smoke in utero was associated with hyperactive-distractible behaviour in preschool children.

Correlates of motivation to quit smoking among alcohol dependent patients in residential treatment.
Martin RA; Rohsenow DJ; MacKinnon SV; Abrams DB; Monti PM. *Drug and Alcohol Dependence* 83(1): 73-78, 2006. (45 refs.)
Substance use and smoking co-occur at high rates and substance abusers smoke more and have greater difficulty quitting smoking compared to the General population. Methods of increasing smoking cessation among alcoholics are needed to improve their health. This study investigated predictors of motivation to quit smoking among patients early in residential treatment for substance abuse. The 198 alcohol dependent patients were participating is a larger smoking study at an inner-city residential substance abuse treatment program. Motivation was measured by the Contemplation Ladder. A hierarchical multiple regression was conducted to assess whether perceived barriers to smoking cessation and self-efficacy about quitting were associated with motivation to quit smoking independent of the influence of degree of tobacco involvement, substance use, and comorbid depressive symptoms. Motivation was higher with longer previous smoking abstinence, fewer barriers to quitting, and greater self-efficacy but was not influenced by smoking rate, dependence, or.-ender. While the combination of alcohol and drug use, alcohol and drug problem severity, and depressive symptoms predicted motivation, no one of these variables was significant. Since barriers to change and self-efficacy are potentially modifiable in treatment, these could be salient targets for intervention efforts. This could be integrated into treatment by assessing barriers and providing corrective information about consequences and methods of overcoming barriers and by providing coping skills to increase confidence in one's ability to quit smoking.

Does a failed quit attempt reduce cigarette consumption following resumption of smoking? The effects of time and quit attempts on the longitudinal analysis of self-reported cigarette smoking intensity.
Knoke JD; Anderson CM; Burns DM. *Nicotine & Tobacco Research* 8(3): 415-423, 2006. (15 refs.)
California Tobacco Survey respondents were asked the intensity of their cigarette smoking 1 year previously and at the time of the survey. Respondents reported a generally lower smoking intensity at survey time compared with 1 year previously. Multivariable statistical models on the change in smoking intensity in the past year were fitted to assess the effects of low-tar cigarette use, a quit attempt in the past year, smoking intensity 1 year previously, and demographic variables (age, education, income, and race). The most important predictor of change in intensity was the intensity 1 year previously. The next most important predictor was whether a quit attempt had been made in the previous year. The demographic variables also were found to have a significant effect, although their effects were of smaller magnitude. Low-tar cigarette use was not a significant predictor of change in intensity in multivariable analysis. The effect of a quit attempt on the reduction in intensity of smoking suggests that periods of cessation may reduce the intensity of smoking and the level of addiction for several months following relapse. Consequently, it may be important to control for cessation activity in studies comparing exposures from conventional tobacco products to exposures from new products that purport to offer lower harm.

Obstetricians and gynecologists' perceptions and use of nicotine replacement therapy.
Price JH; Jordan TR; Dake JA. *Journal of Community Health* 31(3): 160-175, 2006. (29 refs.)
The objective of this study was to assess Ohio obstetricians/gynecologists' perceptions and use of nicotine replacement therapy (NRT) with pregnant smokers. A three-wave mailing procedure was used and 154 responded (44%) to a valid and reliable 36-item questionnaire regarding: Stage of Change in using NRT, perceptions of prescribing NRT, confidence in using NRT, barriers to prescribing NRT, and use of 5 A's counseling steps. One-fourth (26%) prescribed NRT to pregnant smokers. One-third (32%) perceived

NRT as safe, yet few (14%) perceived it as effective. Respondents were most likely to prescribe NRT if the patient requested it (44%). Those most likely to prescribe NRT were more likely to: perceive use of NRT in pregnancy as safe (OR = 20.0); perceive NRT as effective in pregnancy (OR = 4.3); have high confidence in their ability to effectively prescribe NRT (OR = 3.86); and believed most or some of their colleagues prescribed NRT to pregnant smokers (OR = 6.7). The majority did not prescribe NRT possibly because few respondents received cigarette smoking cessation training in medical school or their residencies. Significant revisions in professional training and more continuing medical education are needed regarding smoking cessation and use of NRT.

Proactive telephone counseling as an adjunct to minimal intervention for smoking cessation: A meta-analysis.

Pan W. *Health Education Research* 21(3): 416-427, 2006. (79 refs.)

Proactive telephone counseling is an effective adjunct to minimal intervention for smoking cessation, but its effect has not been quantitatively synthesized thoroughly. The present meta-analysis reviewed 22 studies published between January 1990 and December 2003 and found that there was a heterogeneous, significant adjunct effect of proactive telephone counseling for smoking cessation. This meta-analytic review also found that the following study characteristics explained most of the variation in the adjunct effect: year of publication, follow-up time, mean age of participants, proportion of female participants, participants' readiness to quit smoking and number of cigarettes smoked per day before intervention. In other words, based on the 22 studies, proactive telephone counseling is effective as an adjunct to other minimal interventions for younger, male, light-smoking participants. The results of this meta-analytic review imply that researchers and health care providers may need to focus on participants as much as on intervention process to obtain more effective interventions.

Is the association of smoking and depression a recent phenomenon?

Johnson EO; Breslau N. *Nicotine & Tobacco Research* 8(2): 257-262, 2006. (41 refs.)

Part of the hardening hypothesis to explain the persistence of smoking-despite powerful antismoking forces-links smoking with psychopathology, especially depression. It has been proposed that the association between depression and smoking has emerged in more recent cohorts as smoking rates declined, disproportionately leaving among current smokers those who found it more difficult to quit because of their psychopathology. We examined the association of regular smoking and depression in a cohort who began smoking prior to the decline in smoking rates in the United States and assessed a corollary hypothesis that smokers with depression were more likely to persist in smoking than were those without depression. Data were from the Wisconsin Longitudinal Study of a random sample of high school graduates from the class of 1957. In the 1992 follow-up, a subset of these 53-54-year-olds were assessed for lifetime and current depression and smoking (n=4,858). A modest association between regular smoking and depression was found (OR= 1.4, 95% CI=1.2-1.6); persistence of smoking (current smoking among ever regular smokers) was unrelated to single-episode or recurrent depression (OR = 1. 1, 95% CI= 0.8-1.5). The results do not support the proposition that the association between smoking and depression emerged when smoking rates declined, or that self-medication of depression through smoking is a likely mechanism for the persistence of smoking.

Promoting smoking cessation during hospitalization for coronary artery disease.

Reid RD; Pipe AL; Quinlan B. *Canadian Journal of Cardiology* 22(9): 775-780, 2006. (14 refs.)

Background: Quitting smoking is the most effective intervention to reduce mortality in patients with coronary artery disease who smoke. Guidelines for the treatment of tobacco dependency recommend that health care institutions develop plans to Support the consistent and effective identification and treatment of tobacco users. The University of Ottawa Heart Institute (Ottawa, Ontario) has implemented an institutional program to identify and treat all smokers admitted to the Institute. Objectives: The objectives of the present paper are to describe core elements of this program and present data concerning its reach and effectiveness. Program Description:: The goal of the program is to increase the number of smokers who are abstinent front smoking six months after a coronary artery disease-related hospitalization. Core elements of the program include: documentation of smoking status at hospital admission; inclusion of cessation intervention on patient care maps; individualized, bedside counselling by a nurse Counsellor; the appropriate and timely use of nicotine replacement therapy; automated telephone follow-up; referral to outpatient cessation resources; and training of medical

residents and nursing staff. Program reach and effectiveness were measured over a one year period. Results: Between April 2003 and March 2004, almost 1300 stackers were identified at admission, and 91% received intervention to help them quit smoking. At six-month follow-up, 44% were smoke-free. Conclusions: Hospitalization for coronary artery disease provides an important opportunity to intervene with smokers when their motivation to quit is high. An institutional approach reinforces the importance of smoking cessation in this patient population and increases the rate of smoking cessation. Post-hospitalization quit rates should be a benchmark of cardiac program performance.

The effectiveness of anti-smoking legislation: A review.

Goel RK; Nelson MA. *Journal of Economic Surveys* 20(3): 325-355, 2006. (103 refs.)

This survey focuses on government efforts to curb the use of undesirable goods, notably tobacco products. We synthesize the economics literature and examine the effectiveness of government curbs on tobacco consumption through non-price controls (such as bans on cigarette advertising, health warnings, and workplace smoking bans) and price measures (or higher prices through higher taxes). This literature review is unique in that we do not merely aim to provide a summary of the literature. Rather, our main focus is to draw conclusions from the literature regarding the effectiveness of alternate policy measures across countries in checking smoking and to provide directions/suggestions for extending the scope of government intervention to other tobacco products.

Interventions to facilitate smoking cessation.

Okuyemi KS; Nollen NL; Ahluwalia JS. *American Family Physician* 74(2): 262-271, 2006. (43 refs.)

Tobacco use, primarily cigarette smoking, is the leading cause of preventable morbidity and mortality in the United States, and nearly one third of those who try a cigarette become addicted to nicotine. Family physicians, who see most of these patients, in their offices every year, have an important opportunity to decrease smoking rates with office-based interventions. The U.S. Public Health Service recommends that primary care physicians use the five A's (Ask, Advise, Assess, Assist, and Arrange) model when treating patients with nicotine addiction. Physicians can improve screening and increase cessation rates by asking patients about tobacco use at every office visit. Behavioral modification can improve long-term smoking cessation success; even brief (five minutes or less) advice on smoking cessation during an office visit can increase cessation rates. The effectiveness of nonpharmacologic treatments generally is lower; therefore, pharmacotherapy is recommended for smokers who are willing to attempt cessation, unless medical contraindications exist. The pharmacologic agents approved by the U.S. Food and Drug Administration for treatment of tobacco dependence include bupropion (a non-nicotine therapy) and nicotine replacement therapies in the form of a gum, patch, nasal spray, inhaler, and lozenge. These agents have similar long-term success rates.

Smoking and surgery.

Dureuil B; Dautzenberg B; Masquelet AC. *Presse Medicale* 35(6, Part 2): 1009-1015, 2006. (24 refs.)

Smokers have on elevated risk of perioperative respiratory distress and of transfer to intensive core. Tobacco smoke substantially alters the healing process and constitutes a documented risk factor for postoperative complications (anastomotic leakage, delayed healing etc.). Risk of postoperative infection is also higher in smokers. When patients stop smoking 6 to 8 weeks before surgery the incidence of complications related to tobacco smoke drops nearly to zero. Even stopping for a short period reduces the risk of complications, although the benefits of stopping increase with length of time. Preoperative smoking cessation should take place as early as possible. The general practitioner and the surgeon both hove essential roles to play. Identification of smokers must be accompanied by measures to help the patient stop smoking, including advice, and if necessary nicotine substitutes. Anxiety levels are higher in smokers than nonsmokers. Nonetheless smoking cessation for hospitalization does not increase these levels even without nicotine substitutes. There is no interaction between anesthetic agents and nicotine substitutes: the latter may be continued through the morning of surgery and reinitiated in the immediate postoperative period. Patients who stop smoking for surgery should be encouraged to continue to stop, permanently. The general practitioner's support is essential for this.