

# Library Watch on nicotine

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## **Treating smoking dependence in depressed alcoholics.**

Ait-Daoud N; Lynch WJ; Penberthy JK; Breland AB; Marzani-Nissen GR; Johnson BA. *Alcohol Research and Health* 29(3): 213-220, 2006. (62 refs.)

Alcoholism and nicotine dependence share many neurobiological underpinnings; the presence of one drug can cause a person to crave the other. Depressive illness can complicate comorbid alcohol and nicotine dependence by exacerbating the negative affect encountered during attempts to abstain from one or both drugs. Given the morbidity and mortality associated with cigarette smoking, it is imperative to identify treatments to promote smoking cessation and address comorbid psychiatric conditions contemporaneously. Pharmacotherapeutic options demonstrating varying degrees of efficacy and promise in preclinical and clinical studies include nicotine replacement therapy (NRT), selective serotonin reuptake inhibitors (SSRIs), bupropion, varenicline, tricyclic antidepressants, and bupropion plus NRT. Topiramate has shown potential for promoting smoking cessation in alcoholics, although its safety in depressed patients has not been fully explored. The efficacy of medications for treating nicotine dependence is generally enhanced by the inclusion of behavioral interventions such as cognitive behavioral therapy. When group cohesion and social support are stressed, success rates increase among depressed smokers undergoing smoking cessation treatment. Additional treatment strategies targeting dually dependent individuals with comorbid psychiatric disorders, including special populations such as women and adolescents, await further investigation. Public Domain.

## **Cadmium, lead, and thallium in smoke particulate from counterfeit cigarettes compared to authentic US brands.**

Pappas RS; Polzin GM; Watson CH; Ashley DL. *Food and Chemical Toxicology* 45(2): 202-209, 2007. (49 refs.)

Smoking remains the leading cause of preventable disease in the United States. Exposure to tobacco smoke leads to cancer, heart and lung disease, and addiction. The origin of the tobacco and cigarette manufacturing practices of counterfeit cigarettes are

unknown. Because toxic metals are incorporated into the tobacco lamina during cultivation, the ambient metal content of the soil could produce significant differences in metal levels in both the tobacco and smoke of counterfeit cigarettes. We compared mainstream smoke cadmium, thallium, and lead deliveries from counterfeit and authentic brands. Mainstream smoke levels of all three metals were far greater for counterfeit than the authentic brands, in some cases by an order of magnitude. Significant differences still existed even after normalizing mainstream smoke metal levels with nicotine delivery; the counterfeits typically delivered much higher levels of all three analytes. Our findings, based on 21 different counterfeit samples, suggest that counterfeit cigarettes potentially result in a markedly greater exposure to toxic heavy metals than authentic brands, even after correcting for differences in nicotine intake. In view of the unknown health risks associated with inhaling higher levels of toxic metals, it is prudent to minimize exposure to toxic substances whenever possible. Copyright 2007, Elsevier Science.

## **Community pharmacists and tobacco in Great Britain: From selling cigarettes to smoking cessation services.**

Anderson S. *Addiction* 102(5): 704-712, 2007. (33 refs.)

Aims: To illustrate the ways in which community pharmacists in Great Britain have been able to benefit from a close association with tobacco and smoking from its initial importation to the present time. Design: An analysis of relevant texts and documents, together with brief transcripts from an oral history investigation of community pharmacy in Great Britain. Setting: Community pharmacies in Great Britain during the 20th century. Participants: Retired and practising community pharmacists with experience of the sale of tobacco products during the period. Measurements: Oral testimony of retired and practising community pharmacists about the use and sale of tobacco products, and quantitative analysis of commercially available products designed to help people stop smoking during the period. Findings: Community pharmacists have been involved continuously with the tobacco habit since its first introduction into Britain.

During the course of the 20th century the emphasis shifted from the sale of tobacco products to the sale of medicines intended to help people to give up smoking. Smoking cessation initiatives continue to be an important part of the business of many pharmacies. Conclusions The paper illustrates the continuing tension that exists between pharmacy as business and pharmacy as profession. The sale of tobacco products and, more recently, products to help people give up smoking, has been a small but significant part of the business of many community pharmacists throughout the centuries. Copyright 2007, Society for the Study of Addiction to Alcohol and Other Drugs.

**Co-occurring risk factors for alcohol dependence and habitual smoking: Update on findings from the Collaborative Study on the Genetics of Alcoholism.**

Gruza RA; Bierut LJ. *Alcohol Research and Health* 29(3): 172-178, 2006. (30 refs.)

Habitual smoking and alcohol dependence frequently co-occur, and the genetic factors that influence both conditions appear to overlap. The Collaborative Study on the Genetics of Alcoholism (COGA) has investigated genetic factors that contribute to both alcohol dependence and habitual smoking. Using a sample of families densely affected with alcohol dependence, COGA investigators have identified regions of the genome likely to contain genes that specifically contribute to alcohol dependence and habitual smoking, as well as regions likely to contain genes that contribute to the development of both conditions. Further genetic analyses (i.e., candidate gene studies) have helped identify specific genes that may contribute to the development of alcohol dependence and habitual smoking. These analyses have implicated several genes that encode parts of receptors for the neurotransmitter gamma-aminobutyric acid (GABA) in the development of alcohol or nicotine dependence, respectively. Other studies have identified additional candidate genes for alcohol or nicotine dependence. The results to date suggest that both common and drug-specific genetic influences play a role in the development of alcohol and nicotine dependence. Public Domain.

**Does childhood sexual abuse have an effect on young adults' nicotine disorder (dependence or withdrawal)? Evidence from a birth cohort study.**

Al Mamun A; Alati R; O'Callaghan M; Hayatbakhsh MR; O'Callaghan FV; Najman JM et al. *Addiction* 102(4): 647-654, 2007. (40 refs.)

Aims To examine whether there is evidence of an independent association between childhood sexual abuse (CSA) and nicotine disorder in youth and to

explore the mechanisms underlying this association in a prospective cohort study. Design Birth cohort study followed-up to 21 years. Setting One of two major obstetric hospitals in Brisbane, Australia. Participants The Mater-University of Queensland Study of Pregnancy involves a prospective birth cohort from a population-based sample involving 7223 singletons whose mothers were enrolled between 1981 and 1984 at the first antenatal visit. The present cohort consisted of a subgroup of 2571 youth who completed the lifetime version of the Composite International Diagnostic Interview-computerized version (CIDI-Auto) at the 21-year follow-up. Measurements Nicotine disorder was measured based on Diagnostic and Statistical Manual version IV (DSM-IV) diagnostic criteria and measures of CSA, including retrospective self-reports of rape, were obtained at 21 years. Results Of 2571 young adults, 16.6% met the criteria for either dependence (12.8%) or withdrawal (8.5%). Non-penetrative sexual abuse was reported by 15.5% of respondents and 8.0% reported penetrative sexual abuse. For any types of sexual abuse including non-penetrative, penetrative and self-reported rape before age 16 years, young adults had significantly higher rates of nicotine disorder than young adults who did not experience CSA. This relationship was independent and appeared direct after adjustment for a range of potential confounding and mediating factors. Conclusions This study shows that CSA is associated with young adult nicotine disorder. The results extend the public health significance of findings in this area and highlight the importance of not only intensifying public health efforts to address substance use problems among those who have experienced CSA, but of early intervention, so that emerging risky behaviours may be targeted in the earliest stages. Copyright 2007, Society for the Study of Addiction to Alcohol and Other Drugs.

**Effects of abstinence from tobacco: Valid symptoms and time course. (review).**

Hughes JR. *Nicotine & Tobacco Research* 9(3): 315-327, 2007. (131 refs.)

This article updates a 1990 review of the effects of tobacco abstinence by reviewing (a) which symptoms are valid indicators of tobacco abstinence and (b) the time course of tobacco abstinence symptoms. The author searched several databases to locate more than 3,500 citations on tobacco abstinence effects between 1990 and 2004; 120 of these were used in this review. Data collection and interpretation were based solely on the author's subjective judgments. For brevity, the review does not evaluate craving, hunger, performance, and several other possible outcomes as withdrawal symptoms. Anger, anxiety, depression,

difficulty concentrating, impatience, insomnia, and restlessness are valid withdrawal symptoms that peak within the first week and last 2-4 weeks. Constipation, cough, dizziness, increased dreaming, and mouth ulcers may be abstinence effects. Drowsiness, fatigue, and several physical symptoms are not abstinence effects. In conclusion, no major changes are suggested for DSM-IV criteria for tobacco/nicotine withdrawal, but some deletions are suggested for ICD-10 criteria. Future studies need to investigate several possible new symptoms of withdrawal and to define more clearly the time course of symptoms. Copyright 2007, Taylor & Francis.

### **Overcoming barriers to recruitment and retention in adolescent smoking cessation.**

Kealey KA; Ludman EJ; Mann SL; Marek PM; Phares MM; Riggs KR et al. *Nicotine & Tobacco Research* 9(2): 257-270, 2007. (51 refs.)

Participant recruitment and retention have been identified as challenging aspects of adolescent smoking cessation interventions. Problems associated with low recruitment and retention include identifying smokers, obtaining active parental consent, protecting participants' privacy, respecting participants' autonomy, and making participation relevant and accessible to adolescents. This paper describes nine strategies for minimizing these recruitment and retention problems via a proactive telephone counseling intervention, and reports on their simultaneous implementation among 1,058 smokers from 25 high schools in Washington state. Results are as follows: (a) 85.9% of parents of minor-age seniors provided active consent for their teen's participation, (b) 89.8% of eligible smokers were successfully contacted by counselors, (c) 86.5% of contacted smokers consented to participate in the cessation counseling, (d) 93.8% of consented smokers participated in smoking cessation counseling calls, and (e) 72.2% of participating smokers completed their full intervention. These results demonstrate that older teens who smoke, and their parents, are receptive to confidential cessation counseling that is personally tailored, supportive of their autonomy, and proactively delivered via the telephone. Copyright 2007, Taylor and Francis.

### **'It's interesting how few people die from smoking': Tobacco industry efforts to minimize risk and discredit health promotion.**

Smith EA. *European Journal of Public Health* 17(2): 162-170, 2007. (93 refs.)

Background: It is well known that the tobacco industry has placed articles in scientific literature to maintain

controversy over the dangers of tobacco use, while claiming that smokers are well-informed about risk. This study illuminates an industry attempt to directly undermine popular understanding of the hazards of smoking using an industry-created organization called Associates for Research in the Science of Enjoyment (ARISE). Methods: Searches of tobacco industry documents contained in the Legacy Tobacco Documents Library, British American Tobacco Documents Library, and British Columbia's Tobacco Industry documents were performed as well as searches of the LexisNexis database for news articles on ARISE published between 1989 and 2005. Qualitative analysis focused on industry motives, media strategies, and rhetorical tactics; quantitative content analysis focused on media coverage. Results: Between 1989 and 2005, at least 846 articles appeared in the European, Australian, and US press mentioning ARISE, its members, or its activities. Many of these articles presented two themes: smoking was a healthful 'pleasure', and health promotion practices, including cessation, were stressful and unhealthy. Few articles included responses from health advocates, questioned ARISE's claims, or mentioned its funding. Conclusions: ARISE successfully planted stories in the press, designed to allay the health concerns of smokers and to discredit health promotion information and practices. ARISE's later interest in food suggests that counterfactual 'health' messages on almost any topic could be promoted similarly, regardless of their implausibility. Copyright 2007, Oxford University Press.

### **Predictors of participation in a smoking cessation program among young adult smokers.**

Audrain-McGovern J; Halbert CH; Rodriguez D; Epstein LH; Tercyak KP. *Cancer Epidemiology, Biomarkers & Prevention* 16(3): 617-619, 2007. (33 refs.)

This study investigated the predictors of participation in a smoking cessation trial for young adults ages 18 to 30 years old. Eligible smokers (n = 164) completed a telephone survey that measured demographic, smoking history, and psychosocial variables before the initiation of smoking cessation treatment. Young adult smokers who attended at least one smoking cessation session were compared with those who did not attend any sessions. Logistic regression analysis indicated that race and age were statistically significant multivariate predictors of participation. Caucasians were over six times (odds ratio, 6.03; 95% confidence interval, 2.41-15.05) more likely to participate in the smoking cessation program compared with non-Caucasians (61% versus 19%). For every SD increase in age (SD, 2.45), there was about a 2-fold increase in

the likelihood that a young adult smoker participated in the smoking cessation program (odds ratio, 1.82; 95% confidence interval, 1.23-2.71). Future research should investigate how to promote participation in smoking cessation programs among smokers in emerging adulthood and among non-Caucasian young adult smokers to prevent a lifelong habit associated with disproportionate morbidity and mortality. Copyright 2007, American Association of Cancer Research.

**The acute effects of exercise on cigarette cravings, withdrawal symptoms, affect and smoking behaviour: A systematic review. (review).**

Taylor AH; Ussher MH; Faulkner G. *Addiction* 102(4): 534-543, 2007. (70 refs.)

Aim: To review the effects of a single session of exercise on cigarette cravings, withdrawal symptoms and smoking behaviour. Methods A systematic search and critical appraisal of all 14 relevant studies. Results All 12 studies that compared a bout of exercise with a passive condition reported a positive effect on cigarette cravings, withdrawal symptoms and smoking behaviour. Two other studies that compared two intensities of exercise revealed no differences in outcomes. Single and multi-item measures of cigarette cravings, withdrawal symptoms and negative affect decreased rapidly during exercise and remained reduced for up to 50 minutes after exercise. Effect sizes for seven studies that assessed 'strength of desire to smoke' showed a mean reduction, 10 minutes after exercise, of 1.1 (SD 0.9). Four studies reported a two- to threefold longer time to the next cigarette following exercise. Cravings and withdrawal symptoms were reduced with an exercise intensity from as high as 60-85% heart rate reserve (HRR) (lasting 30-40 minutes) to as low as 24% HRR (lasting 15 minutes), and also with isometric exercise (for 5 minutes). All but one study involved participants temporarily abstaining for the purposes of the experiment. Distraction was probably not the primary reason for the effects. Conclusions: Relatively small doses of exercise should be recommended as an aid to managing cigarette cravings and withdrawal symptoms. Further research to understand the mechanisms involved, such as stress

reduction or neurobiological mechanisms, could lead to development of more effective and practical methods to reduce withdrawal phenomena. Copyright 2007, Society for the Study of Addiction to Alcohol and Other Drugs.

**Barriers to the provision of smoking cessation services reported by clinicians in underserved communities.**

Blumenthal DS. *Journal of American Board of Family Medicine* 20(3): 272-279, 2007. (41 refs.)

Purpose: This qualitative study describes barriers to the provision of smoking cessation services among primary care providers serving medically underserved populations in the state of Georgia. Methods: Eighty-two health care professionals, including clinicians, nurses, administrators, and support staff, participated in 10 focus groups. All sessions were audiotaped and transcribed. A line-by-line analysis of each transcript was conducted. Results: Barriers were grouped into 5 major themes: lack of time, patient unreadiness to change, inadequate patient resources, inadequate provider resources, and inadequate cessation clinical skills. Within this framework, a number of barriers were identified that are of special importance when caring for the underserved. Examples included the tendency of patients to present in "crisis" rather than on an appointment basis; patients' inability to pay out-of-pocket expenses for drug therapy; patients' inability to take time from work for cessation services; limited prescribing authority for clinicians in certain settings; inadequate availability of patient education materials, especially non-English materials; and the need for additional training in smoking cessation for providers. Conclusion: "Safety net" providers encounter barriers to providing smoking cessation services that are similar to barriers faced by clinicians serving more affluent and nonminority populations, but also encounter additional barriers that apply most particularly to the underserved. Copyright 2007, American Board of Family Medicine.