

Library Watch on nicotine

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Cigarette prices and illicit drug use: is there a connection?

Goel RK. *Applied Economics* 41(9): 1071-1076, 2009. (14 refs.)

Using cross-sectional data from the United States, this study examines the effects of cigarette prices on the use of marijuana and illicit drugs (including marijuana, cocaine, heroin, inhalants, hallucinogens or any prescription drugs for nonmedical use). Five primary contributions of this work are: First, it provides evidence on the cross-relation between cigarettes and marijuana and illicit drugs. Second, besides the 'standard' control variables used in demand studies (namely, price, education and income), we also control for the influence of employment status and health insurance coverage. Third, this research provides new evidence on the price elasticity of cigarette demand for a recent time period. Fourth, the data used in this study are the latest available. Five, based on our results, implications for drug use policy are provided. Several key points may be noted from our results: (i) Cigarette demand seems to have become elastic in recent years. This is in contrast to findings in earlier years; (ii) Consumers seem to view cigarettes and marijuana as substitutes and cigarettes and illicit drugs as substitutes. (iii) Greater consumer income increases illegal drug use, but does not seem to have a significant impact on smoking and marijuana use; (iv) The unemployment rate and health insurance converge do not seem to significantly affect smoking or drug use; and (v) Policymakers should pay attention to the cross effects among drugs in framing drug use policies. Copyright 2009, Taylor & Francis.

Developmental consequences of prenatal tobacco exposure.

Cornelius MD; Day NL. *Current Opinion in Neurology* 22(2): 121-125, 2009. (34 refs.)

Purpose of review: This paper reviews results from published, in press, and conference proceedings from 2007 and 2008 that link in-utero tobacco exposure to neurodevelopmental outcomes in exposed offspring. Recent findings: Prenatal tobacco exposure (PTE) affected speech processing, levels of irritability and hypertonicity, attention levels, ability to self-regulate, need to be handled, and response to novelty preference

in infants. In early childhood, PTE effects were mostly behavioral outcomes including activity and inattention and externalizing behaviors, including conduct disorder and antisocial behavior. In adolescents, PTE predicted increased attention deficit hyperactivity disorder, modulation of the cerebral cortex and white matter structure, and nicotine addiction. Several studies found moderating effects with PTE and genetic susceptibilities including dopamine transporter, serotonergic synaptic function, and monamine oxidase pathways. Other studies suggested that environmental and genetic factors might be more important than the direct teratological effects of PTE. Summary: The majority of studies reviewed were prospective and tobacco exposure was quantified biologically. Most demonstrated a direct association between PTE and neurodevelopmental outcomes. More work is needed to examine multifactorial influences. Effects of PTE on the offspring appear to be moderated by genetic variability, neurobehavioral disinhibition, and sex. Copyright 2009, Lippincott, Williams & Wilkins.

Genetic variation as a predictor of smoking cessation success. A promising preventive and intervention tool for chronic respiratory diseases? (review).

Quaak M; van Schayck CP; Knaapen AM; van Schooten FJ. *European Respiratory Journal* 33(3): 468-480, 2009. (149 refs.)

Tobacco smoking continues to be the largest preventable cause of premature morbidity and mortality throughout the world, including chronic respiratory diseases such as asthma and chronic obstructive pulmonary disease. Although most smokers are highly motivated to quit and many smoking cessation therapies are available, cessation rates remain very low. Recent research strongly suggests that variation in genetic background is an important determinant of smoking behaviour and addiction. Since these genetic variants might also influence the response to smoking cessation pharmacotherapies, it is likely that assessment of genetic background could be a promising tool to guide selection of the most effective cessation treatment for an individual smoker. Recently, it has been shown that genetic variants in the dopaminergic system, opioid

receptors, the bupropion-metabolising enzyme CYP2B6 and the nicotine-metabolising enzyme CYP2A6 may play an important role in predicting smoking cessation responses to nicotine replacement therapy and bupropion treatment. Despite the progress that has been made, several challenges will still have to be overcome before genetically tailored smoking cessation therapy can be implemented in standard clinical practice. Copyright 2009, European Respiratory Society Journals Ltd.

Management of emergent psychiatric symptoms during smoking cessation. (review).

Aubin HJ. *Current Medical Research and Opinion* 25(2): 519-525, 2009. (46 refs.)

Background: Tobacco smoking is a major risk factor for cardiovascular disease, respiratory disease and cancer and, for current smokers, smoking cessation is one of the most effective therapeutic interventions for reducing the risk of all-cause morbidity and mortality. However, smoking cessation causes nicotine withdrawal syndrome, a condition with symptoms that overlap those of major depression and anxiety disorders. Scope: The objective of this review was to examine the evidence that smoking cessation may be associated with new onset of psychiatric illness, particularly in individuals with no history of psychiatric disease, and to provide recommendations for the management of emergent psychiatric symptoms in smokers attempting cessation. Relevant articles were obtained from a MEDLINE search (articles indexed up to, and including, October 2008, with no historical date limit), and citation review of selected primary and review articles. Findings: There is evidence that smoking cessation can result in new onset of major depressive disorder, even in individuals with no history of depression. It has also been suggested that nicotine may be used as a form of self-medication for depression, and that smoking cessation can reveal a previously undiagnosed condition. There is little evidence of an association between smoking cessation and increased risk for other types of psychiatric illness. The management of emergent psychiatric symptoms in smokers attempting abstinence is discussed. Conclusion: The overall health benefits of quitting smoking undoubtedly outweigh any potential side-effects associated with nicotine withdrawal. However, a well-managed quit attempt must plan for the emergence of nicotine withdrawal, monitor for symptoms of depression and psychiatric disease, and manage these conditions appropriately should they present. Copyright 2009, Librapharm/Informa Healthcare.

Maternal smoking impairs arousal patterns in sleeping infants.

Richardson HL; Walker AM; Horne RSC. *Sleep* 32(4): 515-521, 2009. (39 refs.)

Objective: Impairment of the arousal process from sleep is thought to be involved in the pathogenesis of sudden infant death syndrome (SIDS). We hypothesized that a greater propensity for cortical arousal in the prone position may, in a normal infant, be a protective mechanism to promote complete arousal in a vulnerable sleeping position, a protection that is absent in SIDS victims. We aimed to examine the arousal process in a group of infants exposed to maternal smoking, who are thus at higher risk for SIDS. Design: Twelve healthy, full-term infants born to smoking mothers were studied using daytime polysomnography at 2 to 4 weeks, 2 to 3 months and 5 to 6 months postnatal age. Data were compared with 13 healthy infants born to nonsmoking mothers. Arousal was induced by pulsatile air-jet stimulation to the nostrils during active and quiet sleep, in both supine and prone positions. For each stimulus, physiologic and electroencephalogram changes were visually assessed and arousal responses were classified as sub-cortical activation or cortical arousal. Results: In smoke-exposed infants, the progression from sub-cortical activation to cortical arousal was depressed at 2 to 4 weeks and 5 to 6 months. There was no effect of maternal smoking observed at 2 to 3 months; however, a significant dose-dependent relationship between cortical activation proportions and urinary cotinine levels was present in both supine and prone positions. Conclusion: We have shown that maternal smoking is associated with impaired arousal processes to trigeminal stimulation that may increase the risk for SIDS. This further highlights the importance of public education of the risks of maternal smoking. Copyright 2009, American Academy of Sleep Medicine.

No more business as usual: Enticing companies to sharply lower the public health costs of the products they sell.

Sugarman S. *Public Health* 123(3): 275-279, 2009. (22 refs.)

Cigarettes, alcohol, junk food and motor vehicles cause a staggeringly high level of death, injury and disease. Business leaders from the industries that make these products currently try to frame these negative outcomes as 'collateral damage' that is someone else's problem. That framing is not only morally objectionable, but also overlooks the possibility that, with proper prodding, industry could substantially mitigate these public health disasters. A promising regulatory tool called 'performance-based regulation' is

a new approach to combating the problem. Simply put, performance-based regulation would impose a legal obligation on manufacturers to reduce their negative social costs. Rather than suing the firms for damages, or telling them how they should run their businesses differently (as typical 'command and control' regimes do), performance-based regulation allows the firms to determine how best to decrease today's negative public health consequences. Like other public health strategies, performance-based regulation shifts the focus away from individual consumers to those who are far more likely to achieve real public health gains. Analogous to a tax on oil causing harm that exceeds a threshold level, performance-based regulation seeks to harness private initiative in pursuit of the public good. Copyright 2009, The Royal Society for Public Health.

Pet owners' attitudes and behaviours related to smoking and second-hand smoke: A pilot study.

Milberger SM; Davis RM; Holm AL. *Tobacco Control* 18(2): 156-158, 2009. (14 refs.)

Background: Although research indicates that second-hand smoke (SHS) harms both human and animal health, data on the percentage of pet owners who smoke or allow smoking in their homes are not readily available. Objective: To investigate pet owners' smoking behaviour and policies on smoking in their homes, and the potential for educational interventions to motivate change in pet owners' smoking behaviour. Methods: A web-based survey was used with 3293 adult pet owners. The main outcome measures were smoking behaviour of pet owners and their cohabitants; policies on smoking in pet owners' homes; and impact of information about the dangers of pet exposure to SHS on pet owners' smoking intentions. Results: Of respondents, 21% were current smokers and 27% of participants lived with at least one smoker. Pet owners who smoke reported that information on the dangers of pet exposure to SHS would motivate them to try to quit smoking (28.4%) and ask the people with whom they live to quit smoking (8.7%) or not to smoke indoors (14.2%). Moreover, non-smoking pet owners who live with smokers said that they would ask the people with whom they live to quit (16.4%) or not smoke indoors (24.2%) if given this information. About 40% of current smokers and 24% of non-smokers living with smokers indicated that they would be interested in receiving information on smoking, quitting, or SHS. Conclusions: Educational campaigns informing pet owners of the risks of SHS exposure for pets could motivate some owners to quit smoking. It could also motivate these owners and non-smoking owners who

cohabit with smokers make their homes smoke-free. Copyright 2009, BMJ Publishing Group.

Scared straight? Fear-appeal anti-smoking campaigns, risk, self-efficacy and addiction.

Thompson LE; Barnett JR; Pearce JR; Pearce J R. *Health Risk & Society* 11(2): 181-196, 2009. (67 refs.) Smokers are becoming increasingly stigmatised in the contemporary West. Based on a qualitative study in Christchurch, New Zealand, this research aimed to investigate the ways that people respond to anti-smoking campaigns and to raise concerns about the ways that fear-appeal campaigns in particular may serve to reinforce the stigmatisation of 'hard-core' smokers. Generally, campaigns have been effective and behaviour change has occurred in groups and individuals who have high levels of self-efficacy. Those who do not perceive that they are efficacious respond in a variety of ways to these campaigns, but those unable or unwilling to change their smoking behaviour represent a hard-core of smokers, who may never be able to quit. Rather than simply cast these people as deviant or unruly, we argue that the nature of nicotine addiction should be addressed more broadly. Addiction to nicotine is perceived very differently to addiction to other addictive substances. More attention needs to be paid to different strategies to attempt to address the undeniable health implications for those who continue to smoke. As well as the strategies and campaigns that are currently used throughout the Western world, the on-going use of NRT should be considered as should various smokeless tobacco products. Copyright 2009, Taylor & Francis.

Smoking cessation during substance abuse treatment: What you need to know. (review).

Baca CT; Yahne CE. *Journal of Substance Abuse Treatment* 36(2): 205-219, 2009. (195 refs.)

Patients in substance abuse treatment frequently smoke cigarettes and often die of tobacco-related causes. Substance abuse treatment programs too often ignore tobacco use. Many patients have expressed interest in stopping smoking, although they may be ambivalent about smoking cessation during substance abuse treatment. This article provides a review of tobacco cessation literature and successful methods of intervention. Research supports two key findings: (a) smoking cessation during substance abuse treatment does not impair outcome of the presenting substance abuse problem and (b) smoking cessation may actually enhance outcome success. We will discuss how to incorporate smoking cessation. Copyright 2009, Elsevier Science.

Smoking-related disease on Australian television news: Inaccurate portrayals may contribute to public misconceptions.

MacKenzie R; Johnson N; Chapman S; Holding S. *Australian and New Zealand Journal of Public Health* 33(2): 144-146, 2009. (20 refs.)

Objectives: To describe the range and frequency of reportage of tobacco-related disease on Australian television news. Methods: Content analysis of all news items mentioning smoking-related disease broadcast on five free-to-air Sydney television channels 2 May 2005 to 31 December 2007. Results: Three in four tobacco-related disease news reports focus on lung cancer. Other cancers and smoking attributable diseases attract modest coverage. Conclusion: Television news coverage may contribute to public misconceptions regarding the associated health risks of smoking, limiting understanding about the many risks involved. Tobacco control advocates should seek to increase the newsworthiness of diseases in addition to lung cancer. Implications: While the Australian public is generally aware of the connection between lung cancer and tobacco, considerable misconception exists as to the broad range of tobacco-related mortality and disease. Given television's role as a key source of public information on health issues in Australia, such coverage can limit understanding about the many attributable risks involved. Tobacco control advocates need to find ways to improve the newsworthiness of tobacco related illness. Copyright 2009, Public Health Association of Australia.

Targeting pregnant and parental smokers: Long-term outcomes of a practice-based intervention.

Moss DR; Cluss PA; Watt-Morse M; Pike F. *Nicotine & Tobacco Research* 11(3): 278-285, 2009. (42 refs.)

This study aimed to assess the change in obstetric and pediatric provider smoking cessation practices following implementation of a practice guideline-driven office-based program. This pre-post evaluation took place between May 2003 and August 2006 in 1 pediatric and 1 obstetric hospital-based clinic. The intervention involved provider training combined with office system supports. A total of 1,080 exit interviews were collected to measure outcomes of clinic practices at baseline and at 1 month, 6 months, 1 year (obstetric), and 2 years (pediatric) after implementation. Trend analysis was used to assess change in practice rates over time. Following program implementation, pediatric provider "Ask" rates

increased (49% before to 86% 2 years after, $p < .0001$); changes in pediatric "Advise" and "Assist" rates were not significant: 44%-59% ($p = .19$) and 18%-28% ($p = .26$), respectively. In the obstetric clinic, whereas no significant changes were detected in provider "Ask" (59%-65% 1 year after, $p = .17$) or "Advise" (72%-85%, $p = .27$) rates, "Assist" rates rose from 28% to 62% ($p = .0075$) 1 year after program implementation. Implementation of the office-based program achieved significantly improved trends in pediatric provider "Ask" rates and obstetric provider "Assist" rates over time. Further research is needed on office strategies to create long-term provider behavior changes in smoking cessation practices. Copyright 2009, Oxford University Press.

What do persons with mental illnesses need to quit smoking? Mental health consumer and provider perspectives.

Morris CD; Waxmonsky JA; May MG; Giese AA. *Psychiatric Rehabilitation Journal* 32(4): 276-284, 2009. (50 refs.)

Objectives: Forty-one percent (41%) of persons in the U.S. who reported having recent mental illnesses also smoke cigarettes. Tobacco use among this population is associated with up to 25 less years of life and excess medical comorbidity compared to the general population. While research demonstrates that tobacco interventions can be effective for persons with mental illnesses, they are not commonly utilized in clinical practice. The current study explored how to adapt evidence-based tobacco cessation interventions to meet the unique physiological, psychological, and social challenges facing persons with mental illnesses. Methods: Ten focus groups were conducted utilizing a semi-structured discussion; 5 for adult mental health consumers ($n = 62$) and 5 with mental health clinicians and administrators ($n = 22$). Content analysis was used to organize themes into categories. Results: Five thematic categories were found: (1) Barriers to treatment, (2) Resources and infrastructure, (3) Negative influences on smoking behavior, (4) Knowledge deficits, and (5) Treatment needs. Conclusions: These findings are instructive in developing appropriate tobacco cessation services for this population. Specifically, these data have been incorporated into a mental health provider toolkit for smoking cessation and have informed the development of a tobacco cessation intervention study. Copyright 2009, Center for Psychiatric Rehabilitation.