In this edition:

Am J Ob Gyn - Andersen

Maternal smoking and impaired endothelium-dependent nitric oxide-mediated relaxation of uterine small arteries in vitro


Andersen MR, Uldbjerg N, Stender S, Sandager P, Aalkjær C.

Abstract

OBJECTIVE: This study aimed to investigate the endothelium-dependent relaxation of uterine small arteries from pregnant nonsmokers, smokers, and ex-smokers who stopped smoking early in pregnancy.

STUDY DESIGN: Uterine arteries were dissected from myometrial biopsies obtained during elective cesarean sections of 34 uncomplicated, singleton pregnancies, and the vascular function was assessed in a wire myograph for isometric recordings. Serum cotinine verified self-reported smoking; 15 were nonsmokers, 10 were smokers, and 9 were ex-smokers.

RESULTS: Arteries from smokers and ex-smokers had reduced bradykinin-induced relaxation compared to arteries from nonsmokers (P < .05). The relaxation response to the nitric oxide donor sodium nitroprusside was similar in arteries from nonsmokers and smokers but was better in arteries from ex-smokers (P < .05).

CONCLUSION: The findings suggest that maternal smoking reduces endothelium-dependent nitric oxide-mediated relaxation in uterine small arteries and that smoking cessation early in pregnancy does not fully abolish this deleterious effect, despite improvement in relaxation to nitroprusside.

http://www.sciencedirect.com/science/journal/00029378

AJPH - Cobb

Editorial

Novel Nicotine Delivery Systems and Public Health: The Rise of the "E-Cigarette"

December 2010, Vol 100, No. 12 | American Journal of Public Health 2340-2342
Inhalation of smoke from burning tobacco remains the most deadly risky behavior in the United States. For years, corporations have sought alternative methods to administer nicotine to the brain without the harms of combustion while retaining the immediate rewarding aspects of cigarettes that make them so profitable, pleasurable, and addictive. The latest attempt at reduced harm products is a heterogeneous collection of battery-driven inhalers termed by the World Health Organization (WHO) as electronic nicotine delivery systems (ENDS) or more popularly as electronic cigarettes or e-cigarettes. These devices pose significant challenges to the public health community because their distribution and use has become widespread in the United States while simultaneously evading most regulatory structures. Ultimately, these devices force a close consideration of how the health and regulatory system evaluates claims of safety and harm reduction in a dynamic, consumer driven environment to ensure the broad protection of public health.

The ENDS tested so far have demonstrated poor quality control; toxic contaminants, albeit at low levels; misrepresentation of the nicotine delivered; and insufficient evidence of overall public health benefit. Ongoing, rigorous safety testing is needed, including determining real-world use patterns and further laboratory testing across device constructions to determine actual systemic nicotine delivery and exposure to harmful constituents. We recognize a manufacturer’s desire to market their product and advocates who say ENDS are logically safer than cigarettes. However, to allow their unregulated sale on presumption is not protecting public health. ENDS should be removed from the market and permitted back only if and when it has been demonstrated that they are safe, that their benefits outweigh their harms to overall public health, and that a comprehensive regulatory structure has been established under an appropriate FDA division. It is possible that ENDS-like devices will eventually provide safer alternatives to smoking that do not increase uptake among youths, that foster cessation, and that are less harmful or addictive than cigarettes. Until then, health and safety claims based on assumptions are unacceptable.

http://ajph.aphapublications.org/cgi/content/extract/100/12/...

AJPH - Klesges

Tobacco Use Harm Reduction, Elimination, and Escalation in a Large Military Cohort

December 2010, Vol 100, No. 12 | American Journal of Public Health 2487-2492

Robert C. Klesges, PhD, Deborah Sherrill-Mittleman, PhD, Jon O. Ebbert, MD, G. Wayne Talcott, PhD and Margaret DeBon, PhD

Abstract

Objectives. We evaluated changing patterns of tobacco use following a period of forced tobacco abstinence in a US military cohort to determine rates of harm elimination (e.g., tobacco cessation), harm reduction (e.g., from smoking to smokeless tobacco use), and harm escalation (e.g., from smoking to dual use or from smokeless tobacco use to smoking or dual use).

Methods. Participants were 5225 Air Force airmen assigned to the health education control condition in a smoking cessation and prevention trial. Tobacco use was assessed by self-report at baseline and 12 months.

Results. Among 114 baseline smokers initiating smokeless tobacco use after basic military training, most demonstrated harm escalation (87%), which was 5.4 times more likely to occur than was harm reduction (e.g., smoking to smokeless tobacco use). Harm reduction was predicted, in part, by higher family income and belief that switching from cigarettes to smokeless tobacco is beneficial to health. Harm escalation predictors included younger age, alcohol use, longer smoking history, and risk-taking.

Conclusions. When considering a harm reduction strategy with smokeless tobacco, the tobacco control community should balance anticipated benefits of harm reduction with the risk of harm escalation and the potential for adversely affecting public health.

http://ajph.aphapublications.org/cgi/content/abstract/100/12...
E-Cigarettes: A Rapidly Growing Internet Phenomenon

Annals of Internal Medicine
November 2, 2010 vol. 153 no. 9 607-609

Cyrus K. Yamin, BS; Asaf Bitton, MD, MPH; and David W. Bates, MD, MSc

Abstract

Electronic cigarettes (e-cigarettes) aerosolize nicotine and produce a vapor that emulates that of cigarettes but purportedly has fewer traditional toxins than secondhand smoke. Although e-cigarettes are widely sold online and by retailers, new research suggests that they may contain unexpected toxins and may provide unreliable nicotine delivery. Many countries have already banned or strictly regulated e-cigarettes. Currently in the United States, e-cigarettes are exempt from regulation as drug-delivery devices. Meanwhile, the presence of e-cigarettes on the Internet, including in Web searches, virtual user communities, and online stores where people sell e-cigarettes on commission, is increasing rapidly. Physicians should be aware of the popularity, questionable efficacy claims, and safety concerns of e-cigarettes so that they may counsel patients against use and advocate for research to inform an evidence-based regulatory approach.

...[L]ittle empirical research exists to determine whether e-cigarettes have potential as smoking cessation products. Aggressive affiliate marketing tactics are equally likely to dissuade smokers attempting to quit and could promote relapse to smoking. E-cigarettes may be less toxic than their paper analogues and may be developed as smoking cessation products, but evidence supporting these theories is currently lacking. We urgently need high-quality objective research to evaluate e-cigarette companies’ claims about harm reduction and smoking cessation potential.

Health professionals need to monitor the biological, social, and addictive effects of e-cigarettes and be aware of their rapid dissemination online. National health surveys that track trends in tobacco use also should inquire about e-cigarette use. Although the safety and efficacy of e-cigarettes is uncertain, we believe that clearly counseling patients against e-cigarette use, as well as other tobacco use, is prudent. Meanwhile, e-cigarette salespersons have open access to the public.

http://www.annals.org/content/153/9/607.abstract

Association of waterpipe smoking and road traffic crashes


Saadat S, Karbakhsh M.

Abstract

BACKGROUND: The purpose of this research was to examine whether waterpipe smokers experience increased risk of motor vehicle crashes.

METHODS: In a telephone survey, a random sample of Iranian drivers were asked to report their age, gender, vehicle age, whether their vehicles were equipped with anti-lock braking system (ABS), average daily drive time (DDT), whether they smoked cigarette or waterpipe, whether they had diabetes mellitus (DM), number of traffic crashes during the last calendar year and whether the crash involved a pedestrian or another vehicle.

RESULTS: A total of 2070 motor vehicle owners with the mean age of 41.6 +/- 11.45 were interviewed. The annual incidence of Road Traffic Crashes (RTC) was 14.9%; 14.0% involved a collision/s with other vehicles and 0.9% with pedestrians. There was an association between the RTC and male gender, DDT, being a
cigarette smoker, being a waterpipe smoker and DM in univariable analysis. The association between RTC and being a waterpipe smoker and also cigarette smoker was significant in multivariable analysis after adjustment for DDT.

CONCLUSIONS: Being waterpipe and/or cigarette smoker and DDT were the independent predictors of the number of traffic crashes in Poisson regression model. If the increased risk of RTC among waterpipe or cigarette smokers is seen in other studies, it would be beneficial to promote tobacco cessation and control strategies through injury prevention initiatives.

http://www.biomedcentral.com/1471-2458/10/639
http://www.biomedcentral.com/content/pdf/1471-2458-10-639.pdf

Also:

Cardiovascular risk estimated after 13 years of follow-up in a low-incidence Mediterranean region with high prevalence of cardiovascular risk factors
http://www.biomedcentral.com/1471-2458/10/640
http://www.biomedcentral.com/content/pdf/1471-2458-10-640.pdf

Note: Full text PDFs freely available from links immediately above.

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Br J Health Psych - Mercken

No smoke without fire: The impact of future friends on adolescent smoking behaviour

Br J Health Psychol. 2010 Oct 19. [Epub ahead of print]

Mercken L, Candel M, van Osch L, de Vries H.

Abstract

Objectives This study examined the impact of future friends and the contribution of different social influence and selection processes in predicting adolescents' smoking behaviour by extending the theory of planned behaviour (TPB). We investigated the impact of previous smoking, direct pressure from friends, descriptive norms of present and future friends, smoking-based selection of future friends, and distinguished between reciprocal and desired friends. Design A longitudinal design with three measurements was used. Methods The sample consisted of 1,475 Dutch high school students (mean age=12.7 years) that participated as a control group in the European Smoking prevention Framework Approach study at three measurements. Results Structural equation modelling revealed that adolescent smoking was influenced by intention, previous smoking, descriptive norms of parents and siblings, and that desired as well as reciprocal friends were selected based on similar smoking behaviour. Future friends indirectly influenced adolescent smoking through intention, as did attitude, subjective norms of parents and siblings, previous smoking, and descriptive norms of reciprocal friends and siblings. Conclusions The present results suggest that descriptive norms and selection of friends need to be considered as major factors explaining smoking behaviour among adolescents besides the TPB components. These insights contribute to the further refinement of smoking prevention strategies.

http://www.ingentaconnect.com/content/bpsoc/bjhp/pre-prints/

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CMAJ - Stanbrook/Temple/Brewster

Editorial

The federal government’s senseless policy change on tobacco warning labels

CMAJ
Tobacco control is an area where government policy initiatives are uniquely effective in yielding widespread public health benefits. A decade ago, Canada led the world in enacting tough and effective tobacco policy regulations, particularly regarding warning labels on tobacco products. Since then, 38 other countries have implemented similar programs and many have far more stringent requirements.

However, rather than moving Canada further ahead, the federal government now seems poised to abandon this legacy. In late September, Health Canada abruptly announced at a closed-door meeting with provincial and territorial representatives that it was suspending plans to move forward with larger and more graphic warning labels as well as a prominently displayed toll-free number for a quit-smoking line. Instead, the federal government's tobacco policy will now focus on fighting contraband cigarettes...

The federal Minister of Health has previously shown leadership in getting tobacco control legislation passed through Parliament. Her leadership is needed again. Minister Aglukkaq must take action to ensure that the new warning labels go forward without further delay. She should commit Health Canada to an ongoing process of regular and timely renewal of the labels, given the clear evidence that this is necessary. She should also give careful consideration to the initiatives of other countries that have surpassed Canada's lead in fighting tobacco consumption, such as Australia's recent decision to require plain packaging of cigarettes.

We should all be outraged about the suspension of efforts to renew tobacco warning labels. Few people — even in government — would likely dispute the great importance and high incidence of the often gruesome consequences of smoking illustrated on cigarette packages. Let us therefore hope that our elected federal officials hear and heed the many Canadians whom their senseless policy shift has disappointed and angered.

http://www.cmaj.ca/cgi/rapidpdf/cmaj.101583v1

CMAJ Correspondence & related Editorial:

Governments, pay for smoking cessation
http://www.cmaj.ca/cgi/content/full/182/16/1761-c
http://www.cmaj.ca/cgi/reprint/182/16/1761-c

Medical education needed for smoking cessation
http://www.cmaj.ca/cgi/content/full/182/16/1761-b
http://www.cmaj.ca/cgi/reprint/182/16/1761-b

Governments, pay for smoking cessation
http://www.cmaj.ca/cgi/rapidpdf/cmaj.101140v1

Note: Full text PDFs freely available from links immediately above.

Referenced Cochrane Data Syst Rev:

Healthcare financing systems for increasing the use of tobacco dependence treatment
http://mrw.interscience.wiley.com/cochrane/clsysrev/articles...

Clin Exp Hypertens - Scallan

The combined effect of hypertension and smoking on arterial stiffness


Scallan C, Doonan RJ, Daskalopoulou SS.

Abstract

Arterial stiffness plays a critical role in the function of the cardiovascular system as it represents the coupling of the left ventricle and arterial tree. Increased arterial stiffness is associated with a number of cardiovascular complications. Increased stiffness occurs with age and with the development of chronic conditions (e.g., hypertension) and the presence of vascular risk factors (e.g., smoking). Measuring arterial stiffness is increasingly gaining popularity as a method of assessing cardiovascular health and treatment efficacy. The
The purpose of this review was to assess the combined effect of hypertension and smoking on arterial stiffness. A systematic review of the literature revealed four relevant studies; hypertension and smoking were found to be independent detrimental factors for raising arterial stiffness, and combined they raise arterial stiffness more than either solitary factor. However, a need was identified for future studies to determine the extent to which smoking cessation therapy combined with the appropriate anti-hypertensive medication can lead to stabilization or even reversal of arterial stiffness.

http://informahealthcare.com/doi/abs/10.3109/106419609034435...

Clin Gastroent Hepatol - Leufkens/Côté

Cigarette Smoking and colorectal cancer risk in the EPIC study


Abstract

BACKGROUND & AIMS: There has been consistent evidence for a relationship between smoking and colorectal cancer (CRC), although it is not clear whether the colon or rectum is more sensitive to the effects of smoking. We investigated the relationships between cigarette smoking and risk of CRC and tumor location.

METHODS: We analyzed data from 465,879 participants in the European Prospective Investigation into Cancer and Nutrition (EPIC) study; 2,741 developed CRC during the follow-up period (mean 8.7 years). Cox proportional hazard regression models were used to estimate hazard ratios (HRs) and 95% confidence intervals (95% CIs).

RESULTS: The risk of colon carcinoma was increased among ever smokers (HR 1.18, 95%CI 1.06-1.32) and former cigarette smokers (HR 1.21, 95%CI 1.08-1.36), compared with never smokers; the increased risk for current smokers was of borderline significance (HR 1.13, 95%CI 0.98-1.31). When stratified for tumor location, the risk of proximal colon cancer was increased for former (HR 1.25, 95%CI 1.04-1.50) and current smokers (HR 1.31, 95%CI 1.06-1.64), but the risks for cancers in the distal colon or rectum were not. Subsite analyses showed a non-significant difference between the proximal and distal colon (p=0.45) for former smokers and a significant difference for current smokers (p=0.02). For smokers that had stopped smoking for at least 20 years, the risk of developing colon cancer was similar to that of never smokers.

CONCLUSIONS: Ever smokers have an increased risk of colon cancer, which appeared to be more pronounced in the proximal than the distal colon location.

Also:

Alcohol and smoking as risk factors in an epidemiology study of patients with chronic pancreatitis

http://www.sciencedirect.com/science/journal/15423565

Eur J Gastroent Hepatol - Wahed

Tobacco dependence and awareness of health risks of smoking in patients with inflammatory bowel disease

Eur J Gastroenterol Hepatol. 2010 Oct 27. [Epub ahead of print]
Abstract

BACKGROUND AND AIM: Smoking is a risk factor for developing Crohn's disease (CD) and worsens its outcome. Conversely, in ulcerative colitis (UC), the onset may be triggered by the smoking cessation and smoking may be beneficial. To help to ascertain whether patients with inflammatory bowel disease (IBD) would benefit from attending a smoking cessation clinic, we assessed: first, the prevalence of smoking; second, patients' awareness of the effects of smoking, and finally nicotine dependence in IBD patients compared with the healthy and disease-matched controls.

METHODS: A total of 246 consecutive IBD outpatients (173 patients with CD, 73 patients with UC) completed a questionnaire on smoking habits and its effect on IBD. Smokers were assessed for dependence using the Fagerstrom test for nicotine dependence (FTND) score and their results were compared with those of age, sex, and ethnicity-matched healthy (five controls for each IBD patient) and asthma controls (one control for each IBD patient) attending a smoking cessation clinic.

RESULTS: Thirty five out of 173 patients (20%) with CD and nine out of 73 patients (12%) with UC were current smokers, with 52 out of 173 patients (30%) with CD and 28 out of 73 patients (38%) with UC being ex-smokers. Ninety out of 173 patients (52%) with CD knew that smoking worsens CD, whereas only 15 out of 73 patients (21%) with UC knew of the beneficial effects of smoking on their disease (P=0.032). Knowledge was unrelated to smoking status. In patients with CD, the median (range) FTND score was 3 (0-8) compared with 7 (2-10) in healthy (P<0.001) and 6 (2-9) in asthma controls (P<0.0001). Only seven of the 35 (20%) smoking patients with CD were highly dependent (FTND score ≥6). Similarly, in the patients with UC, the FTND score was 1 (0-4), lower than in healthy, [6 (2-10), and asthma controls, [7 (4-10); (P<0.004 for both groups)].

CONCLUSION: Patients with CD were better informed about the effects of smoking on their own disease than the patients with UC. Nicotine dependence in IBD patients is lower than in smokers' clinic clients and comparable with that of the general population. Their low nicotine dependence suggests that most IBD patients could be weaned off the smoking habit successfully in the IBD clinic and referral to a smoking cessation clinic was offered to the highly dependent minority and others expressing interest in attending.

http://journals.lww.com/eurojgh/Abstract/publishahead/Tobacc...

Eur J Pediatr - Aycicek

Maternal active or passive smoking causes oxidative stress in placental tissue


Aycicek A, Varma M, Ahmet K, Abdurrahim K, Erel O.

Abstract

The aim of this study was to assess the influence of active and passive maternal smoking on placenta total antioxidant/antioxidant status in term infants. The levels of cord blood total antioxidant capacity (TAC), total oxidant status (TOS), and oxidative stress index (OSI) were measured in samples of fetal placental tissue, cord blood, and the maternal peripheral blood serum and from 19 mothers who were active smokers, 19 who were passive smokers, and 22 who were nonsmokers (not exposed to active or passive smoking). The pregnancies were between 37 and 40 weeks' gestation, were uncomplicated, and the infants were delivered vaginally. Birth weight and head circumference in the active smokers were significantly (P<0.001) lower than those in the controls. Placenta, cord blood, and the maternal peripheral blood serum and from 19 mothers who were active smokers, 19 who were passive smokers, and 22 who were nonsmokers (not exposed to active or passive smoking). The pregnancies were between 37 and 40 weeks' gestation, were uncomplicated, and the infants were delivered vaginally. Birth weight and head circumference in the active smokers were significantly (P<0.001) lower than those in the controls. Placenta, cord blood, and the maternal peripheral TAC levels were significantly lower in the active smokers compared with the controls (P<0.001), while TOS and OSI levels were significantly higher in the active and passive smokers than in the controls (P<0.001). A positive significant correlation was found between active maternal smoking and placenta TOS and OSI levels (P<0.016), and a significant negative correlation was found between number of cigarettes exposed to and birthweight and head circumference (P<0.05). In conclusion, active or passive maternal smoking is associated with important alterations in oxidant and antioxidant balance in fetal placental tissue and causes potent oxidative stress.
HEB - McKnight-Eily

Prevalence and Psychosocial Correlates of Current Smoking Among Adolescent Students in Thailand, 2005

*Health Educ Behav*
Published online before print October 27, 2010.

Lela McKnight-Eily, PhD, René Arrazola, MPH, Robert Merritt, MA, Ann Malarcher, PhD, Nithat Sirichotiratana, DrPH

Abstract

This article examines the prevalence of current smoking and associated psychosocial correlates and whether these correlates differ by sex among adolescent students in Thailand. Data were analyzed from the Thailand Global Youth Tobacco Survey (GYTS), a school-based, cross-sectional survey conducted in 2005 and completed by Mathayom 1, 2, and 3 (U.S. seventh through ninth grades) students. Weighted prevalence estimates of the percentage of students who were current smokers (smoked on ≥1 day during the past 30 days) and noncurrent smokers were calculated for the sample and for each psychosocial variable. Separate logistic regression models were calculated for males and females to examine the independent association of the psychosocial correlates of current smoking. Significant correlates for both males and females included close peer smoking, secondhand smoke exposure, being offered a free cigarette by a tobacco industry representative, and belief that smoking is not harmful. These correlates are examined in the context of comprehensive tobacco control laws in Thailand.

Health Place - Spilková/Mistry

Inequalities in smoking in the Czech Republic: Societal or individual effects?

*Health Place*, 2010 Oct 14. [Epub ahead of print]

Spilková J, Dzúrová D, Pikhart H.

Abstract

Smoking constitutes one of the main public health problems worldwide. In the Czech Republic, one of the post-communist countries undergoing societal transition, there was a significant decrease in smoking prevalence during 1985-1997, followed by certain stagnation in prevalence of smokers. The most serious problem is the smoking among young population and socially disadvantaged groups. This paper examines social inequalities in smoking in the Czech population using multilevel approach. Data were analysed by multilevel modelling using smoking in the past, current smoking and current moderate/heavy smoking as outcomes of interest. Men were significantly more likely to be smokers than women. Further, the analysis confirmed that current smoking is the most common among young people. Education was strongly inversely related to all smoking outcomes. Smoking was also significantly more reported by divorced and unemployed individuals. While the association between small-area characteristics and smoking was limited, smoking was more common in the areas with higher unemployment and higher proportion of non-Czech nationals.
**Hum Psychopharm - Greenbaum**

*Why do young women smoke? VII COMT as a risk modifying gene for Nicotine dependence - role of gene-gene interaction, personality, and environmental factors*

*Hum Psychopharmacol.*, 2010 Oct 25. [Epub ahead of print]


**Abstract**

OBJECTIVES: Catechol-O-methyltransferase (COMT) may be a risk modifying gene for Nicotine dependence (ND) rather than a direct susceptibility gene for this phenotype. Brain nicotinic cholinergic receptors modulate dopaminergic transmission, and several variants within the neighboring CHRNA5-CHRNA3 genes have been associated with ND. Therefore, it is biologically reasonable to study the interactive contribution of COMT and the CHRNA5 and CHRNA3 genes to ND.

METHODS: Using a case-control sample of 90 young, Israeli, Jewish female smokers (FTND ≥ 4) and 108 controls (FTND = 0 during heaviest period of smoking), we studied association with ND of 8 COMT tagging SNPs, their interaction with tagging CHRNA5-A3 SNPs and the role of background, personality, and environmental factors.

RESULTS: None of the COMT SNPs were associated directly with ND. In pairwise interaction analysis of SNPs from the two loci (COMT SNP-CHRNA5-CHRNA3 SNP), the interaction of intronic COMT SNP, rs9332377, with CHRNA3 3'UTR SNP rs660652 was significantly associated with ND (p = 0.0005), withstanding correction for multiple testing.

CONCLUSION: Addition of the genetic interaction variable into a model of non-genetic ND predictors [parental smoking, novelty seeking (NS), and lifetime history of trauma], substantially increases the percentage of ND variance explained by the model, as well as the percentage of cases correctly identified by it.


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**Ind J Comm Med - Deshpande/Shenoy**

*Study of secondhand smoke levels pre and post implementation of the comprehensive smoking ban in Mumbai*


Deshpande A, Kudtarkar P, Dhaware D, Chowgule R.

**Abstract**

OBJECTIVES: This research was undertaken with the aim of assessing the indoor air quality in popular hospitality venues, as also to evaluate the effectiveness of the nationwide comprehensive public smoking ban. The analysis was split into two halves - baseline study taken up prior to implementation of the said ban on 2(nd) October 2008, and the follow-up study after it came into effect.

MATERIALS AND METHODS: Twenty-five venues including five restaurants, fourteen resto-bars, two hookah (smoking water-pipe) cafes and four pubs were selected using a mix of random, convenience and purposeful sampling. Particulate matter (PM(2.5)) measurements at these venues were made using TSI SidePak AMS10 Personal Aerosol Monitor.

RESULTS: The average PM(2.5) level in venues where smoking was permitted prior to implementation of ban was found to be 669.95 µg/m(3) in the baseline study. Post ban, the average PM(2.5) level in same test venues reduced to 240.8 µg/m(3). The hookah cafes were an exception as the average PM(2.5) levels exceeded the permissible limits before as well as post ban.
CONCLUSION: The baseline study showed that the hospitality venues had hazardous levels of PM(2.5) particles arising from second-hand smoke prior to smoking ban. These decreased by a maximum of 64% after the law took effect. A substantial improvement in air quality at these venues post implementation of the smoking ban indicated the effectiveness of the law.

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2963881/

Also:

Tobacco Use Among Rural Schoolchildren of 13-15 Years Age Group: A Cross-Sectional Study
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2963887/

**Note:** Full text html freely available from links immediately above.

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**Int J Neuropsychopharm - Esterlis**

**Brain β2*-nicotinic acetylcholine receptor occupancy after use of a nicotine inhaler**


**Abstract**

The Nicotrol® (Pfizer, USA) nicotine inhaler reduces craving by mimicking the behavioural component of cigarettes and delivering controlled doses of nicotine, which binds to the beta-2 subunit-containing nicotinic acetylcholine receptors (β2*-nAChRs). Previous studies examined β2*-nAChR occupancy after administration of regular and low-nicotine cigarettes. Here, we measured occupancy of β2*-nAChRs after administration of nicotine via inhaler, and the relationship between occupancy and changes in craving for tobacco smoking and withdrawal symptoms. Tobacco smokers participated in [123I]5-IA-85380 SPECT studies with either a nicotine inhaler (n=9) or tobacco cigarette (n=4) challenge. [123I]5-IA was administered as a bolus plus constant infusion. After equilibrium was achieved, three 30-min baseline scans were collected, and subjects either used the nicotine inhaler or a regular cigarette, and up to six additional scans were obtained. Receptor occupancy was determined based on the Lassen plot method. Craving for tobacco smoking and withdrawal symptoms were evaluated pre- and post-challenge. Use of the nicotine inhaler produced an average 55.9±6.4% occupancy of β2*-nAChRs 2-5 h post-challenge, whereas use of a cigarette produced significantly higher receptor occupancy (F=10.6, p=0.009) with an average 67.6±14.1% occupancy 1.5-5 h post-challenge. There was a significant decrease in withdrawal symptoms post-nicotine inhaler use (F=6.13, p=0.04). These results demonstrate significant differences in occupancy of β2*-nAChRs by nicotine after use of the inhaler vs. a cigarette and confirm the ability of the nicotine inhaler to relieve withdrawal symptoms.

http://journals.cambridge.org/action/displayAbstract?fromPag...
parental change in body weight, smoking habits and levels of physical activity were associated with adiposity in their children. Methods. The study population consisted of 3 681 adolescents and their parents from the Nord-Trøndelag-Health-Study (HUNT). The parents participated in the two first waves of HUNT (HUNT-1:1984-86, HUNT-2:1995-97), where information on anthropometry, smoking habits and physical activity were obtained. The adolescents participated in the Youth-Part of HUNT-2. We used logistic regression to calculate odds-ratios (ORs) for adolescent offspring overweight according to parental change in body-weight, smoking habits and physical activity, adjusting for these factors in both parents, as well as for socioeconomic status and adolescent age and sex. Results. Children of parents who changed weight from normal weight to overweight from HUNT-1 to HUNT-2 had higher OR for overweight in adolescence than children of parents who remained normal weight (mothers: 1.9 [95% CI: 1.4,2.5], fathers: 2.2 [95% CI: 1.5,3.0]. Children of mothers who reduced their weight from overweight to normal weight had no higher OR for overweight in adolescence than mothers who remained normal weight (OR: 1.0; 95% CI: 0.2, 4.7). Children of mothers who quit smoking (OR: 0.5; 95% CI: 0.3, 0.8) had lower OR for overweight in adolescence than children of mothers who persisted in smoking. Conclusions. Healthy changes in parental life-style during childhood are associated with lower occurrence of offspring overweight in adolescence.

http://informahealthcare.com/doi/abs/10.3109/17477166.2010.5...

JAMA - Levene

Association of Features of Primary Health Care With Coronary Heart Disease Mortality

JAMA. 2010;304(18):2028-2034.

Louis S. Levene, MB, BCChir, FRCGP; Richard Baker, MD, FRCGP; M. John G. Bankart, MSc, PhD; Kamlesh Khunti, MD, PhD, FRCGP

Abstract

Context The goal of US health care reform is to extend access. In England, with a universal access health system, coronary heart disease (CHD) mortality rates have decreased by more than two-fifths in the last decade, but variations in rates between local populations persist.

Objective To identify which features of populations and primary health care explain variations in CHD mortality rates between the 152 primary care trust populations in England.

Design, Setting, and Participants A cross-sectional study in England of all 152 primary care trusts (total registered population, 54.3 million in 2008) using a hierarchical regression model with age-standardized CHD mortality rate as the dependent variable, and population characteristics (index of multiple deprivation, smoking, ethnicity, and registers of individuals with diabetes) and service characteristics (level of provision of primary care services, levels of detected hypertension, pay for performance data) as candidate explanatory variables.


Results The mean age-standardized CHD mortality rates per 100,000 European Standard Population were 97.9 (95% confidence interval [CI], 94.9-100.9) in 2006, 93.5 (95% CI, 90.4-96.5) in 2007, and 88.4 (95% CI, 85.7-91.1) in 2008. In all 3 years, 4 population characteristics were significantly positively associated with CHD mortality (index of multiple deprivation, smoking, white ethnicity, and registers of individuals with diabetes), and 1 service characteristic (levels of detected hypertension) was significantly negatively associated with CHD mortality (adjusted $\hat{r}^2 = 0.66$ in 2006, adjusted $\hat{r}^2 = 0.68$ in 2007, and adjusted $\hat{r}^2 = 0.67$ in 2008). Other service characteristics did not contribute significantly to the model.

Conclusion In England, variations in CHD mortality are predominantly explained by population characteristics; however, greater detection of hypertension is associated with lower CHD mortality.

http://jama.ama-assn.org/cgi/content/short/304/18/2028
Influence of experiences of racial discrimination and ethnic identity on prenatal smoking among urban black and Hispanic women

J Epidemiol Community Health. 2010 Oct 25. [Epub ahead of print]

Nguyen KH, Subramanian SV, Sorensen G, Tsang K, Wright RJ.

Abstract

Background Although the prevalence of prenatal smoking among minority women exceeds the projected 2010 national objective, data on the determinants of prenatal smoking among minorities remain sparse. Methods We examined associations between self-reported experiences of racial discrimination on prenatal smoking among urban black and Hispanic women aged 18-44 years (n=677). Our main independent variable was created from the Experiences of Discrimination (EOD) scale. Multivariable logistic regression models were estimated to examine the relationship between EOD (moderate EOD as the referent group) and smoking for the entire sample and then separately by race/ethnicity adjusted for sociodemographic variables. We also examined the role of ethnic identity (EI) as a buffer to racial discrimination (n=405). Results The prevalence of smoking was 18.1% versus 10% for black and Hispanic women, respectively (p=0.002). There were no significant differences in the level of EOD based on race. In multivariate regressions, compared to those reporting moderate EOD, women reporting high discrimination (OR 2.64, 95% CI 1.25 to 5.60) had higher odds of smoking. In stratified analyses, this relationship remained significant only in black women. Results suggest that foreign-born Hispanic women with higher EI were less likely to smoke compared to their low-EI counterparts (3.5 vs 10.1%; p=0.08). Conclusion These are the first data in pregnant minority women showing an association between discrimination and increased risk of smoking particularly among black women. Ethnic identity and nativity status were also associated with smoking risk. Smoking cessation programmes should consider such factors among childbearing minority women.

http://jech.bmj.com/content/early/2010/10/25/jech.2009.10751...

A review of cost-effectiveness of varenicline and comparison of cost-effectiveness of treatments for major smoking-related morbidities


Zimovetz EA, Wilson K, Samuel M, Beard SM.

Abstract

This review aims to examine economic evaluations of varenicline, to compare the reported cost-effectiveness of varenicline with that of treatments for major smoking-related diseases and to evaluate the findings. A literature search was performed to identify Studies for decision making. Methods published articles in English indexed in MEDLINE and the Cochrane Library (Issue 1, 2009), which includes the Economic Evaluation Database. Additional sources also were searched to identify unpublished varenicline studies, including conference abstracts. The search for varenicline studies was limited from 2006 to October 2009; searches for all other types of studies were limited from 1990 to October 2009. The search yielded a total of 20 relevant economic to October 2009. Results evaluations of varenicline. In addition, 37 reviews of economic evaluations in chronic obstructive pulmonary disease, non-small cell lung cancer and cardiovascular disease, as well as studies evaluating the impact of economic rewarding were considered in this review. From these identified economic evaluations, the incremental cost-effectiveness ratios for varenicline ranged 582 per quality-adjusted life-year (including indirect costs). These estimates appeared substantially lower when compared with incremental cost-effectiveness ratios reported for secondary prevention of smoking-related diseases, which in some cases were as high as 66 to be cost-effective from the perspective of both health care payers and employers, because of reduced health care consumption and costs. The cost-effectiveness of varenicline also compares favourably to that of interventions recommended for the treatment and prevention of smoking-related diseases.
Mil Med - Poston

Military line leadership and tobacco control: perspectives of military policy leaders and tobacco control managers


Abstract

Despite progress in policy changes, tobacco use rates are still high in the military. Little is known about the views of those who create and implement tobacco control policies within the Department of Defense. These individuals determine what policy initiatives will be developed, prioritized, and implemented. We conducted key informant interviews with 16 service-level policy leaders (PLs) and 36 installation-level tobacco control managers (TCMs). PLs and TCMs believed that line leadership view tobacco control as a low priority that has minimal impact on successful mission completion. They also identified cultural factors that perpetuate tobacco use, such as low cost and easy accessibility to tobacco, smoke breaks, and uneven or unknown enforcement of current tobacco policies.

MMWR - Fairley


Morbidity and Mortality Weekly Report (MMWR) Weekly

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Lung cancer is the second most commonly diagnosed cancer in both males and females and the leading cause of cancer-related death in the United States (1). Lung cancer affects some races more than others; blacks have higher incidence and mortality rates than do whites (2,3). This report presents the first analysis of lung cancer incidence among racial/ethnic groups by U.S. census region. CDC analyzed data collected by CDC’s National Program of Cancer Registries (NPCR) and the National Cancer Institute’s Surveillance, Epidemiology, and End Results (SEER) Program for the period 1998--2006. These combined data reflect new lung cancer cases representing approximately 80% of the U.S. population. During this study period, annual incidence per 100,000 population was highest among blacks (76.1), followed by whites (69.7), American Indians/Alaska Natives (AI/ANs) (48.4), and Asian/Pacific Islanders (A/PIs) (38.4). Hispanics had lower lung cancer incidence (37.3) than non-Hispanics (71.9). Incidence varied greatly with age, peaking among persons aged 70--79 years (426.7). The region with the highest incidence was the South (76.0); the lowest was the West (58.8). Among whites, the highest lung cancer incidence was in the South (76.3); the highest incidence among blacks (88.9), AI/ANs (64.2), and Hispanics (40.6) were in the Midwest, and the highest incidence among A/PIs was in the West (42.5). These findings identify the racial/ethnic populations and geographic regions that would most benefit from enhanced efforts in primary prevention, specifically by reducing tobacco use and exposure to environmental carcinogens...

During 1998--2006, a total of 1,433,172 persons received lung cancer diagnoses (annual incidence: 69.3 per 100,000) in the United States (Table 1). Annual incidence per 100,000 was higher among males (88.2) than females (55.4). Incidence was highest among blacks (76.1), followed by whites (69.7), AI/ANs (48.4), and A/PIs (38.4). Hispanics had lower lung cancer incidence (37.3) than non-Hispanics (71.9). By age group, incidence was highest among persons aged 70--79 years (426.7), followed by ≥80 years (354.8), 60--69 years (258.0), 50--59 years (86.5), 40--49 years (21.8), and <40 years (0.9), a pattern that persisted within racial and ethnic categories (Table 2). Lung cancer incidence was higher among blacks and whites than among AI/ANs or A/PIs for all age groups. When analyzed by U.S. census region,¶ lung cancer incidence
was highest in the South (76.0), followed by the Midwest (73.0), Northeast (68.6), and West (58.8) (Figure). Among whites, the highest lung cancer incidence was in the South (76.3); incidence among blacks (88.9), AI/ANs (64.2 [not significant]), and Hispanics (40.6 [not significant]) was highest in the Midwest, and incidence among A/PIs was highest in the West (42.5).

Reported by

TL Fairley, PhD, E Tai, MD, JS Townsend, MS, SL Stewart, PhD, CB Steele, DO, Div of Cancer Prevention and Control, National Center for Chronic Disease Prevention and Health Promotion; SP Davis, PhD, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion; JM Underwood, PhD, EIS Officer, CDC.

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5944a2.htm

Also:

Great American Smokeout --- November 18, 2010
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5944a1.htm
http://www.cdc.gov/mmwr/pdf/wk/mm5944.pdf

Note: Full text PDF of complete MMWR Weekly issue freely available from link immediately above.

Resp Med - Nielsen

Excessive costs of COPD in ever-smokers. A longitudinal community study


Nielsen R, Johannessen A, Omenaas ER, Bakke PS, Askildsen JE, Gulsvik A.

Abstract

AIM: We aimed to estimate the societal treatment-related costs of COPD in hospital- and population-based subjects with spirometry defined COPD, relative to a control group.

METHODS: 81 COPD cases and 132 controls without COPD were randomly recruited from a general population, as were 205 COPD patients from a hospital register. All participants were ever-smokers of at least 40 years of age, followed for 12 months. Data on comorbid conditions and spirometry were collected at baseline. Standardized telephone interviews every third month gave information on use of healthcare services and exacerbations of respiratory symptoms.

RESULTS: The increased (excessive) median annual costs per case having stage II, stage III and stage IV COPD were $400 (95% CI 105-695), 1918 (1268-2569) and 1870 (1031-2709), respectively, compared to the population-based controls. Costs increased with $81 (95% CI 50-112) per exacerbation of respiratory symptoms and $461 (95% CI 354-567) per comorbid condition. Excessive costs for hospital COPD patients were threefold that of the population-based COPD cases.

CONCLUSION: The excessive treatment-related cost of COPD stage II+ in ever-smokers of at least 40 years was estimated to $105 million for Norway. Comorbidity was a dominant predictor of excessive cost in COPD.

http://www.sciencedirect.com/science/journal/09546111

Soc Sci Med - Hajat

Do the wealthy have a health advantage? Cardiovascular disease risk factors and wealth

Abstract

The use of wealth as a measure of socioeconomic status (SES) remains uncommon in epidemiological studies. When used, wealth is often measured crudely and at a single point in time. Our study explores the relationship between wealth and three cardiovascular disease (CVD) risk factors (smoking, obesity and hypertension) in a US population. We improve upon existing literature by using a detailed and validated measure of wealth in a longitudinal setting. We used four waves of data from the Panel Study of Income Dynamics (PSID) collected between 1999 and 2005. Inverse probability weights were employed to control for time-varying confounding and to estimate both relative (risk ratio) and absolute (risk difference) measures of effect. Wealth was defined as inflation-adjusted net worth and specified as a six category variable: one category for those with less than or equal to zero wealth and quintiles of positive wealth. After adjusting for income and other time-varying confounders, as well as baseline covariates, the risk of becoming obese was inversely related to wealth. There was a 40%-89% higher risk of becoming obese among the less wealthy relative to the wealthiest quintile and 11 to 25 excess cases (per 1000 persons) among the less wealthy groups over six years of follow up. Smoking initiation had similar but more moderate effects; risk ratios and differences both revealed a smaller magnitude of effect compared to obesity. Of the three CVD risk factors examined here, hypertension incidence had the weakest association with wealth, showing a smaller increased risk and fewer excess cases among the less wealthy groups. In conclusion, this study found a strong inverse association between wealth and obesity incidence, a moderate inverse association between wealth and smoking initiation and a weak inverse association between wealth and hypertension incidence after controlling for income and other time-varying confounders.

http://www.sciencedirect.com/science/journal/02779536

Span J Psych - Becoña

Spanish adaptation of the NDSS (Nicotine Dependence Syndrome Scale) and assessment of nicotine-dependent individuals at primary care health centers in Spain


Becoña E, López A, Fernández del Río E, Míguez MC, Castro J.

Abstract

The availability of adequate instruments for the assessment of nicotine dependence is an important factor that is relevant in the area of tobacco addiction. In this study, we present a Spanish validation of the Nicotine Dependence Syndrome Scale (NDSS) (Shiffman, Waters, & Hickcox, 2004). The sample was composed of patients, all daily smokers, who visited their General Practitioner (GP) at five Primary Health Care Centers in different cities of Spain (N = 637). The results indicated adequate reliability for the general factor that assesses nicotine dependence (NDSS-Total) (Cronbach’s alpha = .76). Factor analysis confirms the five factors of the original validation: Drive, Continuity, Stereotypy, Priority, and Tolerance. It must be noted that reliability is adequate for the first, and moderate or low for the rest. The NDSS-T and its scales correlate significantly with the Fagerström Test for Nicotine Dependence (FTND), with the nicotine dependence criteria of the Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV) as assessed through the Structured Clinical Interview for DSM-IV (SCID), with carbon monoxide levels in expired air (CO), and with the number of cigarettes smoked. The ROC curve indicates that the NDSS-T has a score of .79 which is under the curve (.69 for the FTND), thus the prediction of nicotine dependence is adequate. We conclude that this instrument is useful (in terms of its total score NDSS-T) for assessing nicotine dependence for Spanish smokers (in Spain), as has been found in other countries, language groups, and cultures.

http://www.ucm.es/info/psi/docs/journal/v13_n2_2010/art951.p...

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