Smoking & Tobacco Abstracts & News

STAN Bulletin
32nd Edition
13-September-2012

Editor's Note: It is not clear if the Canadian study from the MNI (Montreal Neurological Institute) on genetics, the brain and smoking addiction refers to published or ongoing research, but any relevant paper will be highlighted in a future issue of this bulletin. In important news from Canada's smallest province, Prince Edward Island, thirteen tobacco companies have been sued to recover health care costs. Unfortunately, the Statement of Claim is not currently available online but will also be highlighted in a future edition if and when it is obtained.

Stan Shatenstein

Noteworthy:
"Although our findings indicate that there may have been a significant increase during the past decade in the percent of programs that included tobacco control in their curriculum, it is still clear that pediatric residency training programs must do more to prepare residents to address tobacco use and smoke exposure. In particular, training programs must go beyond coverage of health effects of tobacco use and smoke exposure to include more emphasis on how to intervene to prevent tobacco use onset, help patients and parents who smoke or use other forms of tobacco to quit, and partner with parents to protect youth from exposure to harmful tobacco smoke." [Hymowitz N, Schwab JV. Pediatric Residency Training Director Tobacco Survey II, *Pediatr*]

In the News:
- Australia: *Plain package row: tobacco company resorts to 'sick joke'*
- Australia: ACT: *Capital Territory Chief Minister to tighten smoking bans: Poll*
- Australia: SA: *Tobacco ban backed for next generation: Survey: Move against new mouthths*
  - Australia/Hong Kong/US: *Trans Pacific Partnership: PM: Big Tobacco warning at free-trade talks*
- Canada: PEI: *Province sues 13 tobacco companies to recover health care costs: Students smoking less*
- Canada: Quebec: *E-cigarette teen popularity prompts concerns; Health Ministry not doing enough: Video [Français]*
- Canada: MNI: *Genetics & Addictions: How Genes Predict the Brain's Reaction to Smoking [PR]*
- CGESOC: *Scientists find a link between smoking & ovarian cancer [Lancet Oncol]*
- Denmark: EU: *Smokeless tobacco ban to be enforced following legal threats*
- Indonesia: *With Tobacco Bill at Final Stage, Industry Told to Quit: Women's groups reject international TI event*
- Indonesia: *Two-thirds of men smoke: 60 million; Significant increase [WHO: GATS] [Lancet: Giovino]*
- Philippines: *Health Minister worries tobacco lobby could water down 'sin tax' bill*
- Philippines: *Star: Opinion: Increase cigarette tax & save lives; JTI urges government rethink on taxes*
- S. Korea: *Country has cheapest tobacco, 2nd-highest smoking rate in OECD*
- UK: *Second-hand smoking damages memory [Addiction: Hefferman]*
- US: *Smoking: Quitting is tough for teens, too [N&TR: Bidwell]*
- US: *Giant federal tobacco tax hike spurs historic drop in smoking*
  - Zimbabwe/S. Africa: *Illicit cigarette flow across borders, tobacco farming performing well*

In this Edition:
- Appl Health Econ Health Pol - Olsen: Norway: What Explains Willingness to Pay for Cessation Treatments?
- Eur J Neurol - Maniaol: Norway: Smoking & socio-economic status may affect myasthenia gravis
Abstracts:

What Explains Willingness to Pay for Smoking-Cessation Treatments - Addiction Level, Quit-Rate Effectiveness or the Opening Bid?


Olsen JA, Røgeberg OJ, Stavem K.

Abstract

Background: Several countries have now passed laws that place limitations on where smokers may smoke. A range of smoking-cessation treatments have become available, many of which have documented increased quit rates. Population surveys show that most smokers wish to quit, and most non-smokers would prefer to reduce the prevalence of smoking in society. The strengths of these preferences, however, as measured by their willingness to pay (WTP), have not yet been investigated. Objective: This study aims to identify variables that explain variations in people's answers to WTP questions on smoking-cessation treatments. Methods: A representative sample of the Norwegian population was asked their WTP in terms of an earmarked contribution to a public smoking-cessation programme. A sub-group of daily smokers was, in addition, asked about their WTP for a hypothetical treatment that would remove their urge to smoke. The impact of variation in the question format (different opening bids) on stated WTP was compared with that of factors suggested by economic theory, such as quit-rate effectiveness, degree of addiction as measured by the 12-item Cigarette Dependence Scale (CDS-12), and degree of peer group influence as measured by the proportion of one's friends who smoke. Results: In both programmes, the most important determinant for explaining variations in WTP was the size of the opening bid. Differences in quit-rate effectiveness did not matter for people's WTP for the smoking-cessation treatment. Addiction, and having a small proportion of friends who smoke, were positively associated with smokers' WTP to quit smoking. Conclusion: Variations in WTP were influenced more by how the question was framed in terms of differences in opening bids, than by variables reflecting the quality (effectiveness) and need (addiction level) for the good in question. While the WTP method is theoretically attractive, the findings that outcomes in terms of different quit rates did not affect WTP, and that WTP answers can be manipulated by the chosen opening bid, should raise further doubts on the ability of this method to provide valid and reliable answers that reflect true preferences for health and healthcare.


Smoking and socio-economic status may affect myasthenia gravis


Maniaol AH, Boldingh M, Brunborg C, Harbo HF, Tallaksen CM.
Abstract

BACKGROUND AND PURPOSE:

The influence of environmental factors in myasthenia gravis (MG) is unknown. The aim of this cross-sectional population-based study was to investigate if smoking and socio-economic status (SES) were associated with MG in the Norwegian population.

METHODS:

Subjects were 491 MG patients identified in Norway at time of the study (point prevalence 12.7/100 000). A questionnaire covering smoking habits and markers of SES (education and occupation) was mailed to all patients. Population data were obtained from Statistics Norway.

RESULTS:

A total of 375 (76.6%) patients completed the questionnaire (236 women, mean age 59 ± 18 years), of which 193 reported to be early onset MG (EOMG, onset ≤ 40 years, 155 women). Compared with the general population, current smoking was more prevalent amongst MG patients [Risk ratio (RR) 1.5: 95% confidence interval (CI) 1.1-1.9], most of whom had EOMG. Female MG patients had higher education compared with the general population (RR 4.5; 95% CI 3.2-6.2). Male MG patients were similar to the general population regarding both education and occupation, except for a subset of late onset MG who had shorter education (RR 1.9; 95% CI 1.1-3.2) and had worked in crafts and related trades. About half of working age MG patients received disability pension, a finding significantly related with low educational level and a more severe disease course (P < 0.001).

CONCLUSION:

This is the first report indicating that smoking and SES may affect MG. Further studies investigating their role as potential risk factors are warranted.


Second trimester amniotic fluid adiponectin level is affected by maternal tobacco exposure, insulin, and PAPP-A level


Abstract

OBJECTIVES:

Adiponectin is an adipocyte-derived plasma protein with insulin-sensitizing and antiatherosclerotic properties. The objectives of the present study were to determine the amniotic fluid (AF) concentration of adiponectin during the second trimester of pregnancy and to demonstrate its association with maternal and fetal variables and AF concentrations of insulin, leptin, and pregnancy-associated-plasma-protein A (PAPP-A).

STUDY DESIGN:

We performed a cross-sectional study of 222 pregnant women who underwent amniocentesis at 15-18 weeks for genetic reasons. No malformation or chromosomal disorder was found in the newborn after birth. AF adiponectin, leptin, PAPP-A, and insulin concentrations were measured using commercially available assays. All maternal, fetal, and biochemical variables were studied using univariate and multivariate linear regression analysis to determine their association with the AF concentration of adiponectin.

RESULTS:
Adiponectin concentration was negatively correlated with maternal smoking status ($\beta=-5.208; p<0.001$) and positively correlated with levels of insulin ($\beta=0.621; p=0.002$) and PAPP-A ($\beta=40.150; p<0.001$). Non-significant correlations were found between adiponectin concentration and maternal age, maternal body mass index, gestational age at amniocentesis, fetal gender, and AF level of leptin.

**CONCLUSION:**

These findings suggest that the fetus and its membrane adipocytokines, in relationship with maternal and other fetal variables, play a dynamic role in the regulation of energy and oxidative stress homeostasis due to its insulin-sensitizing and antiatherosclerotic effects. The association of these molecules with maternal tobacco consumption during pregnancy could have perinatal implications.

http://www.ejog.org/article/S0301-2115%2812%2900350-8/abstract

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**Parental smoking and childhood refractive error: the STARS study**

**Eye (Lond).** 2012 Aug 31. doi: 10.1038/eye.2012.160. [Epub ahead of print]

Iyer JV, Low WC, Dirani M, Saw SM.

**Abstract**

**Purpose**

To assess the relationship between parental smoking and childhood refractive errors in Singapore Chinese children aged 6-72 months recruited through the STrabismus, Amblyopia, and Refractive errors in Singaporean children study.

**Methods**

A total of 4164 children were recruited, with a positive response rate of 72.3% (n=3009). Cycloplegic refraction measurements were obtained from all children by trained eye professionals. Parents underwent an interviewer-administered questionnaire with information on demographics, lifestyle, and parental smoking history being obtained.

**Results**

Spherical equivalent readings were obtained for 87.7% of the children. In all, 52.1% were male (n=1375). The overall prevalence of myopia (at least -0.5 D) was 11.0%. Overall, 37.1% of the fathers interviewed gave a history of smoking. Among the mothers interviewed, 9.2% gave a history of smoking, 6.6% had smoked during the child's life, and 2.2% had smoked during the pregnancy. Maternal history of ever smoking, smoking during child's life, and smoking during pregnancy were associated with decreased odds ratio (OR) of childhood myopia (OR 0.50 (P=0.01), OR 0.39 (P=0.01), and OR 0.3 (P=0.14), respectively). Paternal history of smoking was associated with decreased OR of childhood myopia (OR of 0.72 (P=0.02)).

**Conclusion**

In light of this finding of an inverse association between parental smoking and childhood myopia, further studies are suggested to better understand the role of nicotinic acetylcholine receptor pharmacology in ocular development. This may pave the way for the development of targeted treatment strategies for prevention of myopia.

http://www.nature.com/eye/journal/vaop/ncurrent/full/eye2012160a.html

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**Monitoring of Exhaled Carbon Monoxide to Promote Preoperative Smoking Abstinence**

**Health Psychol.** 2012 Aug 27. [Epub ahead of print]

Shi Y, Ehlers S, Hinds R, Baumgartner A, Warner DO.

**Abstract**

**Objective:** Brief preoperative abstinence from cigarette smoking reduces risk for perioperative complications in surgical patients. This study tested the hypothesis that the efficacy of brief advice recommending abstinence the morning of surgery would be increased if patients were informed that exhaled carbon monoxide (CO) levels would be monitored to assess compliance. Method: Cigarette smokers scheduled for elective surgery were randomized to 2 groups. Subjects in both groups received brief advice (BA) recommending smoking abstinence on the morning of surgery. The CO-informed + BA group was also told that their smoking status would be checked before surgery using exhaled CO monitoring; the other group (BA only) was not. Results: CO levels on the morning of surgery were not significantly different in the CO-informed + BA (n = 80) and BA-only groups (n = 84; M = 9.7, SD = 8.0, and M = 9.3, SD = 6.6 parts per million (ppm), respectively, p = .67). When the data from both groups were combined and compared with data from 506 additional surgical patients receiving only usual care, CO levels were significantly higher in those patients receiving usual care. Conclusions: Informing patients that their smoking status would be checked the morning of surgery by CO monitoring does not further increase the efficacy of BA to abstain the morning of surgery.
Mass media exposure to tobacco messages among secondary school children in Mumbai


Surani NS, Shroff HP.

**Abstract**

The objectives of this study were to explore differences in exposure to media messages (pro- and antitobacco messages, marketing and promotions) between students consuming tobacco, areca nut, nonconsumers, and those intending to quit and to examine differences between municipal and private school students. The Global Youth Tobacco Survey was completed by secondary school students (N = 534) from municipal and private schools in Mumbai. Overall, the number of students who reported ever use of tobacco was quite low (5.1%). There was no significant difference in exposure to media messages between users of tobacco, areca nut, and nonusers. There were significantly higher numbers of ever users of tobacco in private compared to municipal schools. There was a significant association between exposure to marketing and promotions and intention to quit, but not with the other exposure variables. Media exposure may be related to intention to quit but not to quitting behavior.

DNA and protein adducts in human tissues resulting from exposure to tobacco smoke

*International Journal of Cancer*

**Accepted Article.** These manuscripts have been accepted, but have not been edited or formatted. They will be published at a future date.

Accepted manuscript online: 10 SEP 2012

David H. Phillips and Stan Venitt

**Abstract**

Tobacco smoke contains a variety of genotoxic carcinogens that form adducts with DNA and protein in the tissues of smokers. Not only are these biochemical events relevant to the carcinogenic process, but the detection of adducts provides a means of monitoring exposure to tobacco smoke. Characterisation of smoking-related adducts has shed light on the mechanisms of smoking-related diseases and many different types of smoking-derived DNA and protein adducts have been identified. Such approaches also reveal the potential harm of environmental tobacco smoke to non-smokers, infants and children. Because the majority of tobacco-smoke carcinogens are not exclusive to this source of exposure, studies comparing smokers and non-smokers may be confounded by other environmental sources. Nevertheless certain DNA and protein adducts have been validated as biomarkers of exposure to tobacco smoke, with continuing applications in the study of environmental tobacco smoke exposures, cancer prevention and tobacco product legislation. The present article is a review of the literature on smoking-related adducts in human tissues published since 2002.

Correlates of COPD and chronic bronchitis in nonsmokers: data from a cross-sectional study

*International Journal of Chronic Obstructive Pulmonary Disease*

Published Date September 2012 Volume 2012:7 Pages 577 - 585

Waked M, Salame J, Khayat G, Salameh P

12.11.2012
Abstract

**Purpose:** Our objective was to assess the prevalence of chronic bronchitis and chronic obstructive pulmonary disease (COPD) and their correlates among a Lebanese nonsmoker group.

**Material and methods:** A cross-sectional study was conducted between October 2009 and September 2010, using a multistage cluster sample throughout Lebanon including Lebanese residents aged 40 years and above with no exclusion criteria. Pre- and postbronchodilator spirometry measurements were performed and carbon monoxide level was measured in exhaled air. COPD was defined and classified according to the Global Initiative for Chronic Obstructive Lung Disease guidelines or according to the lower limit of normal (forced expiratory volume in 1 second/forced vital capacity postbronchodilator < 5th percentile of the healthy population having the same age and sex). Chronic bronchitis was defined by the declaration of morning cough and expectorations for more than 3 months a year over more than 2 years in individuals with normal spirometry.

**Results:** Out of 2201 individuals, 732 were never-smokers: 25 (3.4%) of them had COPD, and 86 (11.75%) fulfilled the definition of chronic bronchitis. Correlates of COPD included a childhood respiratory disease, house heated by diesel, and older age. On the other hand, correlates of chronic bronchitis included childhood respiratory diseases, living in southern Lebanon versus other regions, heating home by gas, older age, number of smokers at work, and lower height.

**Conclusion:** A substantial percentage of the nonsmoking population may exhibit chronic bronchitis or COPD. The significant correlates mentioned above should be taken into consideration in order to reduce the risk of developing such chronic and debilitating respiratory diseases.

Although parents’ smoking during fetal life and childhood have been shown to be associated with deleterious effect on pulmonary mucosa, thus involving COPD causation and increased severity, we were not able to find significant correlations in our population. Previous passive smoking did not reach significance as a predictor for COPD: this could be partially explained by recall bias since the study addressed adults of 40 years and above. Whereas being in contact with smokers at work was found to be correlated with chronic bronchitis: the higher the number of smokers, the higher the risk of chronic bronchitis. In this case, it is understandable because such a factual phenomenon can be recalled precisely. However, we can find conflicting results in the literature about passive smoking as a risk factor for COPD and chronic bronchitis among nonsmokers. A study performed on Taiwanese secondhand smokers showed that exposed women were 3.65-fold more likely to have chronic bronchitis than those who had not been exposed. In addition, there was a significant increasing trend between the severity of COPD and exposure years of passive smoking ($P$, 0.01). Canadian researchers also demonstrated that never- and exsmokers exposed to secondhand smoke had significantly higher odds of chronic bronchitis (50%) than those not exposed to secondhand smoke. On the other hand, other studies failed to show a clear association between passive smoking and COPD as well as with chronic bronchitis in nonsmokers...

http://www.dovepress.com/articles.php?article_id=10947

**Note:** Open Access. Full text PDF freely available from link immediately above.

Perceptions and Influences of a State Prison Smoking Ban

**J Correct Health Care, 2012 Aug 30.** [Epub ahead of print]

Thibodeau L, Seal DW, Jorenby DE, Corcoran K, Sosman JM.

**Abstract**

Prison smoking bans are increasingly common. It is important to consider how those who are incarcerated respond to these bans and to the subsequent development of contraband tobacco markets. Since there are high rates of smoking in individuals who become incarcerated, along with high rates of chronic illnesses that are exacerbated by smoking, it is critical to examine whether there are health promoting changes in perceptions of and intentions toward smoking and other health behaviors that can be maintained on release to the community. Interviews with incarcerated men experiencing a prison smoking ban revealed their responses to being smoke-free, reactions to the presence of contraband smoking, and the influences of this experience on their intentions to smoke following release.

http://jcx.sagepub.com/content/early/2012/08/26/1078345812456019.abstract
http://jcx.sagepub.com/content/early/2012/08/26/1078345812456019.long

**Note:** Open Access. Full text PDF freely available from link immediately above.
Relations of Alcohol Consumption With Smoking Cessation Milestones and Tobacco Dependence

Journal of Consulting and Clinical Psychology, Sep 10, 2012

Cook, Jessica W.; Fucito, Lisa M.; Piasecki, Thomas M.; Piper, Megan E.; Schlam, Tanya R.; Berg, Kristin M.; Baker, Timothy B.

Abstract

Objective: Alcohol consumption is associated with smoking cessation failure in both community and clinical research. However, little is known about the relation between alcohol consumption and smoking cessation milestones (i.e., achieving initial abstinence, avoiding lapses and relapse). Our objective in this research was to examine the relations between pretreatment alcohol consumption patterns (non/infrequent drinker, moderate drinker, binge drinker) and smoking cessation milestones and tobacco dependence. Method: Data were collected from 1,504 smokers (58.2% women; 83.9% White; mean age = 44.67 years, SD = 11.08) making an aided smoking cessation attempt as part of a clinical trial. Alcohol consumption pattern was determined with the Composite International Diagnostic Interview. Tobacco dependence was assessed with the Wisconsin Inventory of Smoking Dependence Motives (WISDM). Results: Alcohol consumption pattern was significantly associated with initial cessation and lapse, and these findings remained after controlling for the effects of treatment, race, gender, and cigarettes per day. Relative to moderate drinkers, both non/infrequent drinkers and binge drinkers were less likely to achieve initial cessation (p < .05), and binge drinkers were more likely to lapse (p < .01). When drinking categories were compared on tobacco dependence indices, results showed that relative to moderate drinkers, non/infrequent drinkers scored higher on several WISDM Primary Dependence Motives subscales (Tolerance, Loss of Control, and Automaticity) and binge drinkers scored higher on WISDM Secondary Dependence Motives subscales (Cue Exposure and Social–Environmental Goads). Conclusions: Non/infrequent drinkers' smoking cessation difficulties may be particularly related to core features of tobacco dependence, whereas binge drinkers' difficulties may be related to environmental and social influences.

http://psycnet.apa.org/psycinfo/2012-24588-001/

Theory and Model Use in Social Marketing Health Interventions


Luca NR, Suggs LS.

Abstract

The existing literature suggests that theories and models can serve as valuable frameworks for the design and evaluation of health interventions. However, evidence on the use of theories and models in social marketing interventions is sparse. The purpose of this systematic review is to identify to what extent papers about social marketing health interventions report using theory, which theories are most commonly used, and how theory was used. A systematic search was conducted for articles that reported social marketing interventions for the prevention or management of cancer, diabetes, heart disease, HIV, STDs, and tobacco use, and behaviors related to reproductive health, physical activity, nutrition, and smoking cessation. Articles were published in English, after 1990, reported an evaluation, and met the 6 social marketing benchmarks criteria (behavior change, consumer research, segmentation and targeting, exchange, competition and marketing mix). Twenty-four articles, describing 17 interventions, met the inclusion criteria. Of these 17 interventions, 8 reported using theory and 7 stated how it was used. The transtheoretical model/stages of change was used more often than other theories. Findings highlight an ongoing lack of use or underreporting of the use of theory in social marketing campaigns and reinforce the call to action for applying and reporting theory to guide and evaluate interventions.

http://www.tandfonline.com/doi/abs/10.1080/10810730.2012.688243

Translating knowledge into policy: Provision and use of evidence in the Tobacco Harm Prevention Law in Vietnam


Higashi H, Ngo AD, Hill PS.
Vietnam is currently considering a Tobacco Harm Prevention Law and the Ministry of Health has been asked to provide supporting evidence. This analysis explores factors influencing uptake of evidence in that legislation process. The political environment reflects the government's ambivalence over how to balance health and socioeconomic issues of tobacco control in a state-owned industry. Although the growing presence of transnational tobacco companies is alarming, the role of Framework Convention on Tobacco Control in prompting government compliance with set milestones is encouraging. Evidence of effectiveness of interventions for health needs now to be complemented with socioeconomic evaluation, and strengthening of the ties between advocates and decision makers.


Smoking Status and Factors Associated with Smoking of First-Time Mothers During Pregnancy and Postpartum: Findings from the Healthy Beginnings Trial

Matern Child Health J. 2012 Sep 1. [Epub ahead of print]

Xu H, Wen LM, Rissel C, Baur LA.

Abstract
This study aimed to investigate smoking status and factors associated with smoking among first-time mothers and their partners during pregnancy and postpartum. A prospective cohort study with 201 first-time mothers was conducted using data from the Healthy Beginnings Trial, undertaken in one of the most socially and economically disadvantaged areas of south-western Sydney, Australia in 2007-2010. Smoking status of the mothers and their partner and smoke-free home status were assessed at 30-36 weeks of pregnancy, and also at 6, 12 and 24 months postpartum. Multivariable two-level logistic random-intercept models were conducted. Smoking rates of the first-time mothers were 17.6 % during pregnancy and 22.5 % postpartum. The likelihood of being a current smoker among the mothers significantly increased after giving birth, with an adjusted odds ratio of 3.96 (95 % CI 1.3-12.1) at 6 months, 6.19 (95 % CI 1.84-30.9) at 12 months, and 6.58 (95 % CI 1.86-23.23) at 24 months postpartum. Mothers' smoking status was significantly inversely associated with educational level and positively associated with their partner's smoking status. In addition, mothers who breastfed their child were significantly less likely to be a smoker, with an adjusted odds ratio of 0.10 (95 % CI 0.02-0.68). Although pregnancy may act as a motivator to quit smoking, it is of concern that maternal smoking rate increased after giving birth. Smoking cessation programs should not only focus on smoking in pregnancy, but also address other risk factors, particularly in postpartum women and their partners.

http://www.springerlink.com/content/a19u2511q5322400/

The impact of tobacco cessation training of medical students on their attitude towards smoking

Med Teach. 2012 Aug 30. [Epub ahead of print]

Yentz S, Klein RJ, Oliverio AL, Andrijasevic L, Likic R, Kelava I, Kocic M.

Dear Sir

In their 2008 MPOWER Report, The World Health Organization (WHO) placed the responsibility for managing and solving the tobacco epidemic on healthcare systems (WHO 2008). Counseling by healthcare workers and availability of inexpensive pharmacologic therapy were named as two crucial interventions for tobacco cessation (WHO 2008). At the University of Michigan Medical School (UMMS), students undergo training with Standardized Patients regarding tobacco cessation counseling, while at the University of Zagreb Medical School (UZMS), students are not offered such training. In order to investigate the impact of different teaching approaches in these schools, an adjusted online version of the Global Health Professions Student Survey (GHPSS) was electronically distributed to 340 clinical year medical students at UMMS and 256 students at UZMS at an equivalent level of clinical training (Warren et al. 2011). Response rates were 37% and 40%, respectively. Subsequent data analysis revealed statistically significant differences concerning smoking habits with 23% of UZMS and only 7% of UMMS students stating that they are currently smoking. Furthermore, UZMS students reported higher second-hand smoke exposure. Greater percentage of UMMS responders believed their patients considered them as role models (97% versus 63%) and that they should routinely advise them to quit smoking (98% versus 94%). In order to create a generation of confident physicians able to accurately counsel patients, medical schools must prioritize smoking cessation in their curriculums. If there were more emphasis in Croatian medical training regarding physician influence on patient behavior, perhaps students would think more seriously about quitting in an effort to be more effective motivators for their patient's cessation.

12.11.2012
Occupancy of Brain Dopamine D3 Receptors and Drug Craving: A Translational Approach

*Neuropsychopharmacology* advance online publication 12 September 2012; doi: 10.1038/npp.2012.171

Manolo Mugnaini, Laura Iavarone, Palmina Cavallini, Cristiana Griffante, Beatrice Oliosi, Chiara Savoia, John Beaver, Eugenii A Rabiner, Fabrizio Micheli, Christian Heidbreder, Anne Andorn, Emilio Merlo Pich and Massimo Bani

**Abstract**

Selective dopamine D₃ receptor (D₃R) antagonists prevent reinstatement of drug-seeking behavior and decrease the rewarding effects of contextual cues associated with drug intake preclinically, suggesting that they may reduce drug craving in humans. GSK598809 is a selective D₃R antagonist recently progressed in Phase I trials. The aim of this study was to establish a model, based on the determination of the occupancy of brain D₃Rs (O₃R) across species, to predict the ability of GSK598809 to reduce nicotine-seeking behavior in humans, here assessed as cigarette craving in smokers.

Using ex vivo [¹²⁵]I(−)-trans-7-hydroxy-2-[N-propyl-N-(3′-iodo-2′-propenyl)amino] tetralin ([¹²⁵]I7OH-PIPAT) autoradiography and [¹¹]CPHNO positron emission tomography, we demonstrated a dose-dependent occupancy of the D₃Rs by GSK598809 in rat, baboon, and human brains. We also showed a direct relationship between O₃R and pharmacokinetic exposure, and potencies in line with the in vitro binding affinity. Likewise, GSK598809 dose dependently reduced the expression of nicotine-induced conditioned place preference (CPP) in rats, with an effect proportional to the exposure and O₃R at every time point, and 100% effect at O₃R values >=72%. In humans, a single dose of GSK598809, giving submaximal levels (72–89%) of O₃R, transiently alleviated craving in smokers after overnight abstinence. These data suggest that either higher O₃R is required for a full effect in humans or that nicotine-seeking behavior in CPP rats only partially translates into craving for cigarettes in short-term abstinent smokers. In addition, they provide the first clinical evidence of potential efficacy of a selective D₃R antagonist for the treatment of substance-use disorders.

http://www.nature.com/npp/journal/vaop/ncurrent/abs/npp2012171a.html

**Related coverage:**

Experimental drug curbs smokers' nicotine cravings - Reuters
http://www.reuters.com/article/2012/09/12/us-smoking-drug-cravings-idUSBRE88B0TG20120912

**Health and nuisance impacts from outdoor smoking on public transport users: data from Auckland and Wellington**


**Russell M, Wilson N, Thomson G.**

Local governments in New Zealand have been progressing a range of outdoor smokefree areas, including playgrounds, parks, sports fields, sporting stadiums, and other settings such as zoo grounds.1 There has also been some activity to develop smokefree streets,2,3 and central government has mandated smokefree school grounds...

The survey of waiting time activities indicated that 5.1% (25/491) of respondents waiting for buses and 3.3% (18/548) waiting for trains reported that they smoked. This compared to texting or phoning at 21.1% and 17.4% respectively. Smoking while waiting declined with age: 8.3% (13/156) for respondents aged 24 years; 6.2% (24/389) for 25–44 year olds; 1.7% (6/351) in 45–64 year olds; and 0% (0/133) in the 65+ age group...

The smoking-related data from this public transport study in Auckland and Wellington indicates that some public transport users self-report smoking as an activity while waiting. This is a concern given that such smoking contributes to general city air pollution and direct SHS exposure to people waiting nearby. Indeed, some of the exposed people provided statements that such smoking was a nuisance and they were concerned around its health effects..

These findings provide some additional arguments as to why local governments could consider expanding outdoor smokefree areas to include all bus stops and train platforms. Furthermore, if making the typical public transport experience more pleasant helps to shift people from private cars to public transport, this will have other health and environmental benefits (such as reducing air pollution, reducing carbon emissions and saving energy).

http://journal.nzma.org.nz/journal/125-1360/5318
Smoking and Health-Related Quality of Life Among U.S. Adolescents

Nicotine Tob Res 2012 published 10 September 2012

Shanta R. Dube, William Thompson, David M. Homa, and Matthew M. Zack

Abstract

Objective: Smoking continues to be a public health problem among youth. Developmentally, adolescence is a period marked by the vulnerability to initiate risk behaviors such as smoking. While studies have documented associations between smoking and poor health related quality of life (HRQOL) among adults, little is known about the association among adolescents.

Methods: Data on smoking and HRQOL from a sample of 4,848 adolescents aged 12–17 years from the 2001–2008 National Health and Nutrition Examination Surveys were analyzed. Smoking status (current, not current, and never) was determined using self-report data and serum cotinine levels. HRQOL was assessed based on self-reported physical and mental health in the last 30 days, activity limitations in the last 30 days, and general self-rated health.

Results: Compared with never smokers, adolescents who ever smoked reported more recent physically unhealthy days (p < .001), mentally unhealthy days (p < .0001), and activity limitation days (p < .01). Compared with never smokers, adolescents who ever smoked or who were current smokers were more likely to report ≥14 physically unhealthy days, ≥14 mentally unhealthy, ≥14 activity limitation days, and fair or poor health; not current smokers were also more likely than never smokers to report ≥14 days for being both physically unhealthy and mentally unhealthy.

Conclusions: Among a nationally representative sample of adolescents, this study found strong associations between smoking and HRQOL measures. The relationship of smoking to self-reported activity limitations warrants attention and further research. The findings underscore the importance of addressing smoking and subjective well-being early in the lifespan.

Anxiety and smoking cessation outcomes in alcohol-dependent smokers

Nicotine Tob Res first published online September 6, 2012

Megan M. Kelly, Christoffer Grant, Sharon Cooper, and Judith L. Cooney

Abstract

Introduction: Anxiety-related characteristics, including anxiety sensitivity and trait anxiety, are elevated in individuals with alcohol and nicotine dependence and associated with greater difficulties with quitting smoking. However, little is known about how anxiety-related characteristics are related to smoking cessation outcomes in alcohol-dependent smokers. The present study, part of a larger smoking cessation clinical trial, examined associations between anxiety sensitivity, trait anxiety, nicotine withdrawal symptoms, smoking urges, and smoking cessation outcomes in a sample of 83 alcohol-dependent smokers.

Methods: Participants were enrolled in concurrent alcohol and tobacco treatment as part of a substance-abuse intensive outpatient program. Smoking cessation treatment was administered in a 3-week cognitive-behavioral format that included 8 weeks of open-label nicotine patch treatment. Information on nicotine withdrawal, smoking urges, and CO-confirmed
smoking consumption rates was collected at baseline, quit date, end of behavioral treatment, and at a 1-month follow-up.

**Results:** Higher levels of anxiety sensitivity were associated with more smoking urges due to anticipation of negative affect relief at quit date. Higher levels of trait anxiety were associated with more smoking urges due to positive reinforcement and anticipation of relief of negative affect at quit date, as well as more severe nicotine withdrawal symptoms at the end of treatment. Levels of anxiety sensitivity and trait anxiety were not associated with Cox regression survival times to relapse.

**Conclusion:** These results indicate that for alcohol-dependent smokers, levels of anxiety sensitivity and trait anxiety are important to consider in the assessment and treatment of nicotine dependence.

Also:

Osmotic Release Oral System Methylphenidate Prevents Weight Gain during a Smoking-Cessation Attempt in Adults with ADHD

http://ntr.oxfordjournals.org/content/early/2012/09/04/ntr.nts152.abstract

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**Pediatric Residency Training Director Tobacco Survey II**

**Pediatrics published 10 September 2012, 10.1542/peds.2011-3570**

Norman Hymowitz and Joseph V. Schwab

**Abstract
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**OBJECTIVE:** To assess the current status of pediatric residency training on tobacco use and smoke exposure.

**METHODS:** A nationwide survey of all pediatric residency training directors in the United States was conducted from November 2010 to May 2011 via use of surveymonkey.com. The survey assessed training director characteristics, attitudes and beliefs about pediatricians' role in addressing tobacco control in patients and parents, past training in tobacco use and smoke exposure, inclusion of tobacco control in their training curriculum, and barriers to inclusion. Data are presented as percentages, with $\chi^2$ tests of significance.

**RESULTS:** Sixty-five percent of programs included tobacco control in the curriculum, and training directors who received past training in tobacco prevention and control were significantly more likely to include tobacco use and smoke exposure than those without training. The vast majority of training programs focused on health effects as opposed to intervention, failed to employ active learning to teach tobacco intervention skills, did not evaluate resident tobacco knowledge and skills, and did not encourage use of medications to help parents quit smoking.

**CONCLUSIONS:** Pediatric residency training programs must do more to prepare residents to address tobacco use and smoke exposure. Given the many competing priorities of residency training, there is a need to explore new ways of integrating tobacco control into the 3-year curriculum.

http://pediatrics.aappublications.org/cgi/content/abstract/peds.2011-3570v1

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**The combined effects of healthy lifestyle behaviors on all cause mortality: A systematic review and meta-analysis**

**Preventive Medicine Volume 55, Issue 3, September 2012, Pages 163–170**

Martin Loef, Harald Walach

**Abstract
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**Objective
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Lifestyle factors are related to mortality. Although much is known about the impact of single factors, the current evidence about the combined effects of lifestyle behaviors on mortality has not yet been systematically compiled.
Method

We searched Medline, Embase, Global Health, and Somed up to February 2012. Prospective studies were selected if they reported the combined effects of at least three of five lifestyle factors (obesity, alcohol consumption, smoking, diet, and physical activity). The mean effect sizes that certain numbers of combined lifestyle factors have on mortality were compared to the group with the least number of healthy lifestyle factors by meta-analysis. Sensitivity analyses were conducted to explore the robustness of the results.

Results

21 studies (18 cohorts) met the inclusion criteria of which 15 were included in the meta-analysis that comprised 531,804 people with a mean follow-up of 13.24 years. The relative risks decreased proportionately to a higher number of healthy lifestyle factors for all cause mortality. A combination of at least four healthy lifestyle factors is associated with a reduction of the all cause mortality risk by 66% (95% confidence interval 58%–73%).

Conclusion

Adherence to a healthy lifestyle is associated with a lower risk of mortality.

...In conclusion, we found that a combination of lifestyle-related behaviors, such as not smoking, drinking alcohol in moderation, eating healthily, regular exercise, and maintaining an optimal weight, is associated with a reduction in mortality by 66%. Our meta-analysis provides strong support for the further promotion of a healthy lifestyle by governments, foundations, and the World Health Organization. If people accepted the responsibility for their own health, the worldwide costs and burden of disease could be greatly reduced.


Related Prev Med Summary:
Piling up healthy behaviors

Also:

Associations of smoking and smoking cessation with CT-measured visceral obesity in 4656 Korean men

Association of functional dopamine-beta-hydroxylase (DBH) 19bp insertion/deletion polymorphism with smoking severity in male schizophrenic smokers

Schizophrenia Research
Volume 141, Issue 1, Pages 48-53, October 2012
Xiang Yang Zhang, Da Chun Chen, Mei Hong Xiu, Li Hui, Haibo Liu, Xingguang Luo, Lingjun Zuo, Huiping Zhang, Therese A. Kosten, Thomas R. Kosten

Abstract

Recent evidence suggests that a dopamine beta-hydroxylase (DBH) polymorphism may play a role in determining an individual's predisposition to developing nicotine dependence. The mechanism for such an association may reflect nicotine's mediation of drug reward in the brain through actions on dopamine, a key mediator of drug reward. Because schizophrenia patients have usually high rates of nicotine use, they are a model group to study such an association. In this study, we hypothesized that the functional polymorphism of DBH (DβH5'-Ins/Del) was associated with smoking in patients with schizophrenia. This polymorphism was genotyped in 636 chronic male schizophrenia (smoker/nonsmoker=490/146) and 396 male controls (smoker/nonsmoker=231/165) using a case–control design. The cigarettes smoked per day (CPD) and smoking behaviors were evaluated by clinician-administered questionnaires and the Fagerstrom Test for Nicotine Dependence (FTND). The results showed no significant differences in DBH 5'-Ins/Del genotype and allele distributions between the patients and healthy controls or between smokers and nonsmokers in either patients or healthy controls alone. However, schizophrenic smokers with the Del allele smoked fewer cigarettes each day and had lower FTND score than those with Ins/Ins genotype. These results suggest that the DBH 5'-Ins/Del polymorphism may influence smoking severity among schizophrenic smokers.