From: "Stan Shatenstein" <shatensteins@sympatico.ca>
To: Undisclosed-Recipient:;
Date: 2.8.2012 13:52:39
Subject: STAN Bulletin: 20th Edition: 2-August-2012

Smoking & Tobacco Abstracts & News
STAN Bulletin
20th Edition
2-August-2012

Editor's note: The *New York Times* blog on Teenage Smokers linked here and below includes hyperlinks to a number of articles and studies. The most recent and relevant of these are linked alongside the blog entry. The *Pediatrics* study has been highlighted in a previous bulletin and remains available upon request, along with all other studies featured below.

Stan Shatenstein

In the News:

- Australia/US: NYC: Bloomberg: Cigarette plain-packaging plan finds favour, powerful ally
- Chile: Bill may ban smoking on television, cut movie scenes, filmmaker cries foul
- Germany: Frankfurt: JTI: Airport unveils smoking lounge in partnership with tobacco firm
- Jamaica/Trinidad: BAT: Turf: Carreras hopes to whip smugglers with new cigarette products
- NZ: Tobacco retailer support for new display legislation [U Otago: Perception Study]
- Saudi Arabia: Public places smoking ban comes into force; Interior Minister stresses importance
- Sri Lanka: CTC: Ceylon Tobacco Company: Smokers contribute billions via tobacco taxes
- Tanzania: Tobacco firms seek guidance on cigarette pack labelling
- Uganda: Member of Parliament unveils draft tobacco bill; BAT campaign smothering law
- UK/India: Anti-tobacco lobby hits out at London Olympic organizers for smoke-free failure
- US: RAI: District Judge Rules Suit Challenging FDA Panel Members on Conflict of Interest Can Proceed
- US: For Teenage Smokers, Removing the Allure of the Pack [Pediatr: Sargent] [Quit Vic: Plain Packs Evidence Review]
- US: Brains of Teens Who Smoke Cigarettes Reveal Early Signs of Addiction [JAH: Rubinstein/DiFranza]
- US: IL: Tobacco groups sue to block new state cigarette taxes

---

In this Edition:

- Acta Orthop Belg - Al-Hadithy: UK: Smoking effect on fracture healing & various orthopaedic procedures
- Addiction - MacKillop: US: High-resolution behavioral economic analysis of cigarette demand to inform tax policy
- Adv Exp Med Biol - Gawlikowska-Sroka: Poland: Student CS & Influence of Legal Regulations on Passive Smoking
- Arthritis Res Ther - Roseman: Smoking or alcohol consumption effect on pneumococcal vaccination & arthritis
- Australas Med J - Thomas: Effect of smoking on ocular surface & precorneal tear film
- BMC Med Res Methodol - Selby: PRECIS: Application & enhancement to cessation trial evaluation
- Br J Psych - Biederman: US: Cigarette smoking as other substance misuse risk: 10-year ADHD study
- Cancer Lett - Hecht: China: Shanghai: Tobacco Smoke Biomarkers & Male Smoker Cancer Risk: Cohort Study
- Chest - Powell: UK: Association between smoking quantity & lung cancer in men & women
- Curr Psychiatry Rep - Mackowich: US: Tobacco Dependence Treatment in Mental Health & Addictive Disorders
- Front Pharmacol - Chen: Cigarette Smoking & Brain Regulation of Energy Homeostasis
- Healthc Inform Res - Song: S. Korea: Nicotine dependence & average smoking: 3-year autoregressive analysis
- Int J Aging Hum Dev - Pruchno: US: NJ: Cigarette smokers, never-smokers & transitions: successful aging implications
- Int J Oncol - Wan: Smoking-associated 7-gene signature for lung cancer diagnosis & prognosis
- Isr J Health Pol Res - Baron-Epel: Israel: Smoking ban challenges in pubs & bars: behavioral ecological model analysis
- JJCO - Saika: WHO Global Report: Cancer Mortality Attributable to Tobacco by Region
- JAH - Fujimoto: US: Decomposing components of friendship & influence on adolescent drinking & smoking
- J Clin Psych - Kapson: US: Specificity of CBT Effects on Coping, Acceptance & Distress Tolerance in Cessation: RT

- J Eval Clin Pract - Lemola: Switzerland: Control beliefs are related to smoking prevention in prenatal care
- JECH - Hirooka: Japan/S. Korea: Smoking influence on coronary artery & aortic calcium in middle-age
- Pain Med - Fishbain: Smoking & Alcohol-Drug Dependence in Chronic Pain Association
- PLoS One - Rogers: US: Higher Rates of Clostridium difficile Infection among Smokers
- Prev Med - Agopian: US: Folic Acid Use, Prenatal Care, Smoking & Drinking in Early Pregnancy by Occupation
- Reprod Toxicol - Huang: Telomere shortening & CS-induced DNA damage of embryonic stem cells
- Tob Induc Dis - Nakagawa: Japan: Smoking & new, cardio-ankle vascular arterial stiffness index in male workers

---

Abstracts:

The effect of smoking on fracture healing and on various orthopaedic procedures

Acta Orthop Belg. 2012 Jun;78(3):285-90.

Al-Hadithy N, Sewell MD, Bhavikatti M, Gikas PD.

Abstract

Ten percent of all fractures lead to problems with healing. Smoking is said to be a cause. There are 13.5 million smokers in the U.K. Healing of tibial fractures, for instance, requires two more months in smokers. Nicotine, carbon monoxide and hydrogen cyanide are most often seen as the offenders, among the 4000 chemicals found in cigarettes. Many studies plead for the negative effect of smoking in general, yet there is uncertainty as to the precise role of nicotine. The authors recommend that patients should attempt smoking cessation therapy before elective orthopaedic treatment.

http://www.actaorthopaedica.be/acta/article.asp?lang=en&navid=114&id=15247&mod=Acta
http://www.actaorthopaedica.be/acta/download/2012-3/01-Al-Hadithy%20et%20al.pdf

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

High-resolution behavioral economic analysis of cigarette demand to inform tax policy

Addiction
Early View (Online Version of Record published before inclusion in an issue)
Article first published online: **30 JUL 2012**

James MacKillop, Lauren R. Few, James G. Murphy, Lauren M. Wier, John Acker, Cara Murphy, Monika Stojek, Maureen Carrigan and Frank Chaloupka

Abstract

Aims

Novel methods in behavioral economics permit the systematic assessment of the relationship between cigarette consumption and price. Towards informing tax policy, the goals of this study were to conduct a high-resolution analysis of cigarette demand in a large sample of adult smokers and to use the data to estimate the effects of tax increases in 10 US States.

Design

In-person descriptive survey assessment.

Setting

Academic departments at three universities.

Participants

Adult daily smokers (i.e. more than five cigarettes/day; 18+ years old; ≥8th grade education); *n* = 1056.

Measurements

Estimated cigarette demand, demographics, expired carbon monoxide.

Findings

The cigarette demand curve exhibited highly variable levels of price sensitivity, especially in the form of 'left-digit effects' (i.e. very high price sensitivity as pack prices transitioned from one whole number to the next; e.g. $5.80–6/pack). A $1 tax increase in the 10 states was projected to reduce the economic burden of smoking by an average of $530.6 million (range: $93.6–976.5 million) and increase gross tax revenue by an average of 162% (range: 114–247%).

Conclusions

Tobacco price sensitivity is non-linear across the demand curve and in particular for pack-level left-digit price transitions. Tax increases in US states with similar price and tax rates to the sample are projected to result in substantial decreases in smoking-related costs and substantial increases in tax revenues.

http://onlinelibrary.wiley.com/doi/10.1111/j.1360-0443.2012.03991.x/abstract

---

Cigarette Smoking Among Students and the Influence of Legal Regulations on Passive Smoking

Adv Exp Med Biol. 2013;755:189-194.

Gawlikowska-Sroka A, Dzieciolowska-Baran E, Szczurowski J, Teul I, Poziomkowska-Gesicka I, Kamienska E.

Abstract
Research suggests that reducing the degree of nicotine addiction in the population cannot be achieved only by prevention programs. Legislative measures are necessary to be taken by the state. The aim of this study was to assess the degree of tobacco abuse in three groups of students. It also assesses the influence of ban on smoking in public places on passive contact of students with tobacco. A customized survey made up of open and closed questions was conducted among 102 students of electrical faculty, 109 medical students, and 71 students of animal husbandry faculty. The results showed that significantly more women from the electrical faculty smoked. Among the students of animal husbandry, men smoke significantly more cigarettes than women. Women studying animal husbandry start smoking significantly earlier (by about 2 years) than women from other faculties. They are also significantly less likely to smoke cigarettes at school and at home. According to the study, the Polish law to ban smoking in public places, in force since the 15th of November 2010, did not make students quit smoking, although the rate of smoking students decreased. Students did not observe restrictions on smoking in their environment. The study indicates a positive influence of the anti-nicotine legislation on passive smoking, just after 3 months from its introduction.

http://www.springerlink.com/content/x64336751v162241/

The effect of smoking or alcohol consumption on markers of systemic inflammation, immunoglobulin levels and immune response following pneumococcal vaccination in patients with arthritis

Arthritis Res Ther. 2012 Jul 23;14(4):R170. [Epub ahead of print]

Roseman C, Truedsson L, Kapetanovic MC.

Abstract

ABSTRACT:

INTRODUCTION:

To study influence of cigarette smoking and alcohol consumption on immune response to heptavalent pneumococcal conjugate vaccine, immunoglobulin levels (Ig) and markers of systemic inflammation in patients with rheumatoid arthritis (RA) or spondylarthropathy (SpA).

METHODS:

In total, 505 patients were vaccinated. Six prespecified groups were enrolled: RA on MTX treatment in some cases other DMARDs (I); RA on anti-TNF as monotherapy (II); RA on anti-TNF+MTX+ possibly other DMARDs (III); SpA on anti-TNF as monotherapy (IV); SpA on anti-TNF+MTX+ possibly other DMARDs (V); and SpA on NSAIDs and/or analgesics (VI). Smoking (pack-years) and alcohol consumption (g/week) were calculated from patient questionnaires. Ig, CRP and ESR were determined at vaccination. IgG antibodies against serotypes 23F and 6B were measured at vaccination and after 4-6 weeks using standard ELISA. Immune response (ratio between post- and prevaccination antibodies; IR) and positive immune response ([greater than or equal to] 2 fold increase in prevaccination antibodies; posIR) were calculated.

RESULTS:

Eighty-eight patients (17.4%) were current smokers. Smokers had higher CRP and ESR, lower IgG and lower IR for both serotypes (p between 0.012 and 0.045). RA patients on MTX who smoked [greater than or equal to] 1pack-year had lower posIR for both serotypes (p=0.021; OR 0.29; CI 0.1-0.7) compared to never-smokers. Alcohol consumption was associated with lower CRP (p=0.05) and ESR (p=0.003) but did not influence IR or Ig levels.

CONCLUSION:

Smoking predicted impaired immune response to pneumococcal conjugate vaccine in RA patients on MTX. Smokers with arthritis had higher inflammatory markers and lower IgG regardless of diagnosis and treatment. Low to moderate alcohol consumption was related to lower levels of inflammation markers but had no impact on immune response. Trial registration: EudraCT EU 2007-006539-29 and NCT00828997.

http://arthritis-research.com/content/14/4/R170/abstract
http://arthritis-research.com/content/pdf/ar3923.pdf

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

The effect of smoking on the ocular surface and the precorneal tear film

Australas Med J. 2012;5(4):221-6. Epub 2012 Apr 30.

Thomas J, Jacob GP, Abraham L.

Abstract

BACKGROUND:

Smoking, both active and passive, creates a plethora of health-related problems, which primarily affect the cardiovascular and respiratory systems. There is very little evidence on the effects of tobacco smoke on the eye, especially regarding anterior ocular surface related pathology. This study was undertaken to determine the effects of smoking on the ocular surface and the tear film in smokers.

METHODS:

A total of 51 (102 eyes) smokers and 50 (100 eyes) age-and gender-matched healthy non-smokers were included in this study. The ocular surface was evaluated by measuring tear film break-up time, surface staining with fluorescein, and corneal and conjunctival sensitivities, and by completing the Schirmer's II test. Data was analysed using Statistical Package for Social Sciences (SPSS) version 11.5. A p value less than 0.05 was considered statistically significant.

RESULTS:

The smoker group had significantly lower tear film break-up time, and corneal and conjunctival sensitivity than the nonsmoker group. Punctate staining was significantly higher in the smoker group than the non-smoker group. There was no statistically significant difference in Schirmer's II test results between the smoker and non-smoker group.

CONCLUSION:

Smoking caused adverse effects on the precorneal tear film and there was strong association between smoking and tear film instability. Although a causative relationship could not be determined, there is a need for further longitudinal studies.

http://www.amj.net.au/index.php?journal=AMJ&page=article&op=view&path[]=1035

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

How pragmatic or explanatory is the randomized, controlled trial? The application and enhancement of the PRECIS tool to the evaluation of a smoking cessation trial

BMC Med Res Methodol. 2012 Jul 23;12(1):101. [Epub ahead of print]

Selby P, Brosky G, Oh PI, Raymond V, Ranger S.

Abstract

BACKGROUND:

Numerous explanatory randomized trials support the efficacy of chronic disease interventions, including smoking cessation treatments. However, there is often inadequate adoption of these interventions for various reasons, one being the limitation of generalizability of the explanatory studies in real-world settings. Randomized controlled trials can be rated as more explanatory versus pragmatic along 10 dimensions. Pragmatic randomized clinical trials generate more realistic estimates of effectiveness with greater relevance to clinical practice and for health resource allocation decisions. However, there is no clear method to scale each dimension during the trial design phase to ensure that the design matches the intended purpose of the study.

METHODS:

We designed a pragmatic, randomized, controlled study to maximize external validity by addressing several barriers to smoking cessation therapy in ambulatory care. We analyzed our design and methods using the recently published 'Pragmatic-Explanatory Continuum Indicatory Summary (PRECIS)' tool, a qualitative method to assess trial design across 10 domains. We added a 20-point numerical rating scale and a modified Delphi process to improve consensus in rating these domains.

RESULTS:

After two rounds of review, there was consensus on all 10 domains of study design. No single domain was scored as either fully pragmatic or fully explanatory; but overall, the study scored high on pragmatism.

CONCLUSIONS:

This addition to the PRECIS tool may assist other trial designers working with interdisciplinary co-investigators to rate their study design while building consensus.

http://www.biomedcentral.com/1471-2288/12/101/abstract
http://www.biomedcentral.com/content/pdf/1471-2288-12-101.pdf

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

Cigarette smoking as a risk factor for other substance misuse: 10-year study of individuals with and without attention-deficit hyperactivity disorder

Br J Psychiatry. 2012 Jul 26. [Epub ahead of print]

Biederman J, Petty CR, Hammerness P, Batchelder H, Faraone SV.

Abstract

BACKGROUND:

We previously documented that cigarette smoking is a risk factor for subsequent alcohol and drug misuse and dependence in adolescent girls with attention-deficit hyperactivity disorder (ADHD).

AIMS:

To revisit this hypothesis with a large longitudinal sample of both genders followed up for 10 years into young adulthood.

METHOD:

We used data from two identically designed, longitudinal, case-control family studies of boys and girls with and without ADHD ascertained from psychiatric and paediatric sources. We studied 165 individuals with ADHD and 374 controls followed up longitudinally and masked for 10 years. We assessed ADHD, smoking and substance use status using structured diagnostic interviews. We tested the association between cigarette smoking and subsequent substance use outcomes using Cox proportional hazard regression models.

RESULTS:

Youth with ADHD who smoked cigarettes (n = 27) were significantly more likely to subsequently develop drug misuse and dependence compared with youth with ADHD who did not smoke (n = 138, P<0.05).

CONCLUSIONS:

These results confirm that cigarette smoking increases the risk for subsequent drug and alcohol use disorders among individuals with ADHD. These findings have important public health implications, and underscore the already pressing need to prevent smoking in children with ADHD.

http://bjp.rcpsych.org/content/early/2012/07/25/bjp.bp.111.100339.abstract

---

Tobacco Smoke Biomarkers and Cancer Risk Among Male Smokers in the Shanghai Cohort Study

Cancer Lett. 2012 Jul 20. [Epub ahead of print]

Hecht SS, Murphy SE, Stepanov I, Nelson HH, Yuan JM.

Abstract
Metabolites of tobacco smoke constituents can be quantified in urine and other body fluids providing a realistic measure of carcinogen and toxicant dose in a smoker. Many previous studies have demonstrated that these metabolites - referred to as biomarkers in this paper - are related to tobacco smoke exposure. The studies reviewed here were designed to answer another question: are these substances also biomarkers of cancer risk? Using a prospective study design comparing biomarker levels in cancer cases and controls, all of whom were smokers, the results demonstrate that several of these biomarkers - total cotinine, total 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanol (NNAL), r-1-,t-2,3,c-4-tetrahydroxy-1,2,3,4-tetrahydrophenanthrene (PheT), and total N'-nitrosonornicotine (NNN) - are biomarkers of cancer risk. Therefore, these biomarkers have the potential to become part of a cancer risk prediction algorithm for smokers.

http://www.sciencedirect.com/science/article/pii/S0304383512004144

The association between smoking quantity and lung cancer in men and women

Chest. 2012 Jul 10. doi: 10.1378/chest.12-1068. [Epub ahead of print]

Helen A. Powell, Barbara Iyen-Omofoman, Richard B. Hubbard, David R. Baldwin, Laila J. Tata

Abstract

BACKGROUND:

Recent studies have shown that for the same quantity of cigarettes smoked, women are more likely to develop heart disease than men, but studies in lung cancer have produced conflicting results. We studied the association between smoking quantity and lung cancer in men and women.

METHODS:

Using data from The Health Improvement Network (a United Kingdom medical research database), we generated a dataset consisting of 12,121 incident cases of lung cancer and 48,216 age, sex and general practice matched controls. We used conditional logistic regression to calculate odds ratios for lung cancer according to highest ever quantity smoked in men and women separately.

RESULTS:

The odds of lung cancer in women who had ever smoked heavily compared to those who had never smoked were increased 19-fold (odds ratio 19.10, 95% confidence interval 16.98-21.49) which was more than for men smoking the same quantity (odds ratio 12.81, 95% confidence interval 11.52-14.24). There was strong evidence of a difference in effect of quantity smoked on lung cancer between men and women (interaction p<0.0001) which remained after adjusting for height (a proxy marker for lung volume).

CONCLUSIONS:

Moderate and heavy smoking carry a higher risk of lung cancer in women than men and this difference does not seem to be explained by lung volume. Our findings suggest that extrapolating risk estimates for lung cancer in men to women will underestimate the adverse impact of smoking in women.

http://journal.publications.chestnet.org/article.aspx?articleid=1232450

Treatment of Tobacco Dependence in People With Mental Health and Addictive Disorders

Curr Psychiatry Rep. 2012 Jul 22. [Epub ahead of print]

Mackowick KM, Lynch MJ, Weinberger AH, George TP.

Abstract
People with mental health and addictive disorders (MHADs) have higher rates of cigarette smoking, and less success in quitting smoking compared with the general population. Moreover, tobacco-related medical illness may be the leading cause of death in the MHAD population. We discuss the scope of this comorbidity, and approaches to the treatment of tobacco dependence in people with MHAD, including schizophrenia, mood disorders, anxiety disorders, and alcohol and substance use disorders. Finally, at the level of health systems, we emphasize the importance of integrated treatment of tobacco dependence in MHADs.

http://www.springerlink.com/content/512316l73666j7p3/

Cigarette Smoking and Brain Regulation of Energy Homeostasis

Front Pharmacol. 2012;3:147. Epub 2012 Jul 25.

Chen H, Saad S, Sandow SL, Bertrand PP.

Abstract
Cigarette smoking is an addictive behavior, and is the primary cause of cardiovascular and pulmonary disease, and cancer (among other diseases). Cigarette smoke contains thousands of components that may affect caloric intake and energy expenditure, although nicotine is the major addictive substance present, and has the best described actions.

Nicotine exposure from cigarette smoke can change brain feeding regulation to reduce appetite via both energy homeostatic and reward mechanisms, causing a negative energy state which is characterized by reduced energy intake and increased energy expenditure that are linked to low body weight. These findings have led to the public perception that smoking is associated with weight loss. However, its effects at reducing abdominal fat mass (a predisposing factor for glucose intolerance and insulin resistance) are marginal, and its promotion of lean body mass loss in animal studies suggests a limited potential for treatment in obesity. Smoking during pregnancy puts pressure on the mother's metabolic system and is a significant contributor to adverse pregnancy outcomes. Smoking is a predictor of future risk for respiratory dysfunction, social behavioral problems, cardiovascular disease, obesity, and type-2 diabetes. Catch-up growth is normally observed in children exposed to intrauterine smoke, which has been linked to subsequent childhood obesity. Nicotine can have a profound impact on the developing fetal brain, via its ability to rapidly and fully pass the placenta. In animal studies this has been linked with abnormal hypothalamic gene expression of appetite regulators such as downregulation of NPY and POMC in the arcuate nucleus of the hypothalamus. Maternal smoking or nicotine replacement leads to unhealthy eating habits (such as junk food addiction) and other behavioral disorders in the offspring.

http://www.frontiersin.org/Neuropharmacology/10.3389/fphar.2012.00147/abstract

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

A three-year autoregressive cross-lagged panel analysis on nicotine dependence and average smoking

Healthc Inform Res. 2012 Jun;18(2):115-24. Epub 2012 Jun 30.

Song TM, An JY, Hayman LL, Kim GS, Lee JY, Jang HL.

Abstract

OBJECTIVES:

Previous studies have been limited to the use of cross sectional data to identify the relationships between nicotine dependence and smoking. Therefore, it is difficult to determine a causal direction between the two variables. The purposes of this study were to 1) test whether nicotine dependence or average smoking was a more influential factor in smoking cessation; and 2) propose effective ways to quit smoking as determined by the causal relations identified.

METHODS:

This study used a panel dataset from the central computerized management systems of community-based smoking cessation programs in Korea. Data were stored from July 16, 2005 to July 15, 2008. 711,862 smokers were registered and re-registered for the programs during the period. 860 of those who were retained in the programs for three years were finally included in the dataset. To measure nicotine dependence, this study used a revised Fagerström Test for Nicotine Dependence. To examine the relationship between nicotine dependence and average smoking, an autoregressive cross-lagged model was explored in the study.

RESULTS:

The results indicate that 1) nicotine dependence and average smoking were stable over time; 2) the impact of nicotine dependence on average smoking was significant and vice versa; and 3) the impact of average smoking on nicotine dependence is greater than the impact of nicotine dependence on average smoking.

CONCLUSIONS:

These results support the existing data obtained from previous research. Collectively, reducing the amount of smoking in order to decrease nicotine dependence is important for evidence-based policy making for smoking cessation.

http://www.e-hir.org/journal/viewJournal.html?year=2012&vol=018&page=115
http://pdf.medrang.co.kr/Hir/2012/018/Hir018-02-05.pdf

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

Cigarette smokers, never-smokers, and transitions: implications for successful aging

Int J Aging Hum Dev. 2012;74(3):193-209.

Pruchno R, Hahn S, Wilson-Genderson M.

Abstract
One of the social identities held by people is defined by whether or not they smoke cigarettes. Although this identity can and does change for many people over the course of their lives, most research has not examined the effects of transitioning from a smoker to a non-smoker. Using a life span perspective, our analyses contrasted the extent to which successful aging is experienced by: (1) persons who ever smoked and those who never smoked; (2) former smokers and current smokers; and (3) persons who transitioned from being a smoker to being a non-smoker at different ages. Using data from a random sample of 5688 persons between the ages of 50 and 74 living in New Jersey, we found that persons who never smoked were most likely to age successfully; there were no differences in patterns of successful aging when all former smokers were compared to current smokers; and persons who quit smoking before age 30 experienced modest benefits compared with those who continued to smoke.

http://baywood.metapress.com/app/home/contribution.asp?referrer=parent&backto=issue,2,5;journal,3,297;linkingpublicationresults,1:300312,1

A smoking-associated 7-gene signature for lung cancer diagnosis and prognosis

Int J Oncol. 2012 Jul 16. doi: 10.3892/ijo.2012.1556. [Epub ahead of print]

Wan YW, Raese RA, Fortney JE, Xiao C, Luo D, Cavendish J, Gibson LF, Castranova V, Qian Y, Guo NL.

Abstract
Smoking is responsible for 90% of lung cancer cases. There is currently no clinically available gene test for early detection of lung cancer in smokers, or an effective patient selection strategy for adjuvant chemotherapy in lung cancer treatment. In this study, concurrent coexpression with multiple signaling pathways was modeled among a set of genes associated with smoking and lung cancer survival. This approach identified and validated a 7-gene signature for lung cancer diagnosis and prognosis in smokers using patient transcriptional profiles (n=847). The smoking-associated gene coexpression networks in lung adenocarcinoma tumors (n=442) were highly significant in terms of biological relevance (network precision = 0.91, FDR<0.01) when evaluated with numerous databases containing multi-level molecular associations. The gene coexpression network in smoking lung adenocarcinoma patients was confirmed in qRT-PCR assays of the identified biomarkers and involved signaling pathway genes in human lung adenocarcinoma cells (H23) treated with 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK). Furthermore, the western blotting results of p53, phospho p53, Rb and EGFR in NNK-treated H23 and transformed normal human lung epithelial cells (BEAS-2B) support their functional involvement in smoking-induced lung cancer carcinogenesis and progression.

http://www.spandidos-publications.com/10.3892/ijo.2012.1556

Challenges for the smoking ban in Israeli pubs and bars: analysis guided by the behavioral ecological model

***Israel Journal of Health Policy Research* 2012, 1:28** doi:10.1186/2045-4015-1-28
Published: **24 July 2012**

Orna Baron-Epel, Carmit Satran, Vicki Cohen, Anat Drach-Zehavy and Melbourne F Hovell

Abstract

Background

The latest amendment to the ban on smoking in public places in Israel was implemented in 2007, adding pubs and bars (P&B) to the list of public places in which smoking is prohibited. However, smoking in most P&B continued. The aim of the study was to identify the theoretically plausible reasons for the partial success of a public ban on smoking in P&B settings. Explanations provided by P&B owners were interpreted as probable causal factors based on the Behavioral Ecological Model (BEM).

Methods

Qualitative interviews were performed with 36 P&B owners in Tel-Aviv and 18 Israeli towns and cities of various population size.

Results

P&B owners reported a variety of situational factors (i.e., contingencies) and reinforcers as likely explanations of the partial failure of the legislated ban on smoking in public places, particularly P&B. The major reinforcers for non-adherence with the law were no or low frequency of inspections and low penalties from authorities. P&B owners also feared loss of customers and revenue if bans were enforced in their own establishment but not in competing establishments. Finally, owners reported social norms prevailing among some Israeli patrons supporting smoking in P&B settings, in part to express opposition to the new law.

Conclusions

Qualitative assessment can uncover probable social situations that operate to prevent greater adherence to smoking bans. The results warrant confirmation by quantitative analyses. Policies with mandated inspections and penalty requirements that are implemented in all bars without prejudice could lead to greater adherence to smoking bans. Positive reinforcing consequences that encourage adherence (such as publicity and support from non-smokers) would be more likely to generate both greater adherence to the policy and good will toward the government. Principles of behavior outlined in the BEM offer guidance for designing quantitative confirmation analyses of future bans.

http://www.ijhpr.org/content/1/1/28/abstract
http://www.ijhpr.org/content/pdf/2045-4015-1-28.pdf

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

Cancer Mortality Attributable to Tobacco by Region Based on the WHO Global Report

Jpn. J. Clin. Oncol. (2012) 42 (8): 771-772.

Kumiko Saika and Ryoko Machii
In order to compare the impact of tobacco on cancer risk across different regions of the world, we abstracted the estimated adult (age 30 years and above) deaths attributable to tobacco for all-malignant neoplasm, trachea, bronchus and lung cancer, and all other malignant neoplasms from the *WHO Global Report* entitled *Mortality Attributable to Tobacco*, which was recently published in 2012. In this publication, the WHO region and the country-specific death rate per 100 000 and proportion attributable to tobacco (%) in 2004 are available by age and sex. We selected for evaluation all-malignant neoplasm (ICD-10 code: C00–97), trachea, bronchus and lung cancer (C33–34) and all other malignant neoplasms (C00–97 except for C33–34)...

For males, the death rate and proportion of tobacco-related death for all-malignant neoplasm was the highest in Europe and the lowest in Africa. In other regions, the death rates were similar. For trachea, bronchus and lung cancer, as well as the trend for all-malignant neoplasm, the death rate attributable to tobacco was the highest in Europe and the lowest in Africa. The proportions of deaths for trachea, bronchus and lung cancer attributable to tobacco were comparably higher than those for all other malignant neoplasms; the proportion for trachea, bronchus and lung cancer ranged from 63% in Western Pacific to 92% in Europe, while for all other malignant neoplasms it ranged from 8% in Africa to 25% in South-east Asia. The tobacco-related death rate for all other malignant neoplasms was also the highest in Europe and the lowest in Africa.

For females, the highest rates of tobacco-related deaths were observed in America for trachea, bronchus and lung cancer. America showed the highest proportions of tobacco-related deaths for trachea, bronchus and lung cancer at 79%, followed by Europe at 62%. In other regions, the proportions were not as high as those for males, <50%.

Africa and the Mediterranean showed the lowest proportions of tobacco-related death and the lowest death rates both for trachea, bronchus and lung cancer, and all other malignant neoplasms.

http://jjco.oxfordjournals.org/content/42/8/771.extract

Decomposing the components of friendship and friends' influence on adolescent drinking and smoking

J Adolesc Health. 2012 Aug;51(2):136-43. Epub 2012 Feb 10.

Fujimoto K, Valente TW.

Abstract

PURPOSE:

Friendship networks are an important source of peer influence. However, existing network studies vary in terms of how they operationalize friendship and friend's influence on adolescent substance use. This study uses social network analysis to characterize three types of friendship relations: (1) mutual or reciprocated, (2) directional, and (3) intimate friends. We then examine the relative effects of each friendship type on adolescent drinking and smoking behavior.

METHODS:

Using a saturated sample from the Add Health data, a nationally representative sample of high school adolescents (N = 2,533 nested in 12 schools), we computed the level of exposure to drinking and smoking of friends using a network exposure model, and their association with individual drinking and smoking using fixed effect models.

RESULTS:

Results indicated that the influence from mutual or reciprocated type of friendship relations is stronger on adolescent substance use than directional, especially for smoking. Regarding the directionality of directional type of friendship relations, adolescents are equally influenced by both nominating and nominated friends on their drinking and smoking behavior. Results for intimate friends friendship relations indicated that the influence from "best friends" was weaker than the one from non-"best friends," which indicates that the order of friend nomination may not matter as much as nomination reciprocation.

CONCLUSIONS:

This study demonstrates that considering different features of friendship relationships is important in evaluating friends' influence on adolescent substance use. Related policy implications are discussed.

http://www.jahonline.org/article/S1054-139X%2811%2900646-X/abstract
http://www.sciencedirect.com/science/article/pii/S1054139X1100646X

Specificity of Effects of Cognitive Behavior Therapy on Coping, Acceptance, and Distress Tolerance in a Randomized Controlled Trial for Smoking Cessation

J Clin Psychol. 2012 Jul 27. doi: 10.1002/jclp.21903. [Epub ahead of print]

Kapson HS, Leddy MA, Haaga DA.

Abstract

OBJECTIVE:

Although there is extensive evidence of the efficacy of cognitive-behavioral therapy (CBT), it is less certain what potential mechanisms of change are specifically affected by CBT interventions. This study was intended to test the specific effects of CBT on compensatory coping skills, acceptance, and distress tolerance or persistence.

METHOD:

Using data from a randomized controlled trial of 8-session group CBT and a time-matched comparison condition for cigarette smokers, we evaluated CBT effects on compensatory coping skills, self-rated acceptance and behavioral markers of persistence and distress tolerance. Because depression proneness had moderated treatment response in the parent clinical trial (Kapson & Haaga, 2010), we tested not only main effects (CBT vs. comparison condition) but also moderated effects (treatment condition X depression proneness).

RESULTS:

CBT significantly improved compensatory coping skills only among the less depression-prone participants, who were the subset of smokers who did not benefit from CBT in terms of smoking cessation outcomes. There were no specific effects of CBT on acceptance or behavioral persistence.

CONCLUSIONS:

To the extent that CBT had specific effects on compensatory coping skills, it was for the participants who did not benefit clinically from the intervention. Much more theory-driven research on multiple candidate change mechanisms is needed to clarify how effective and specific treatments have their effects, for either patients in general or subsets of patients as in moderated effects.

http://onlinelibrary.wiley.com/doi/10.1002/jclp.21903/abstract

---

Influence of cigarette smoking on coronary artery and aortic calcium among random samples from populations of middle-aged Japanese and Korean men

J Epidemiol Community Health. 2012 Jul 29. [Epub ahead of print]

Hirooka N, Kadowaki T, Sekikawa A, Ueshima H, Choo J, Miura K, Okamura T, Fujiyoshi A, Kadowaki S, Kadota A, Nakamura Y, Maegawa H, Kashiwagi A, Masaki K, Sutton-Tyrrell K, Kuller LH, Curb JD, Shin C.

Abstract
BackgroundCigarette smoking is a risk factor of coronary heart disease. Vascular calcification such as coronary artery calcium (CAC) and aortic calcium (AC) is associated with coronary heart disease. The authors hypothesised that cigarette smoking is associated with coronary artery and aortic calcifications in Japanese and Koreans with high smoking prevalence.MethodsRandom samples from populations of 313 Japanese and 302 Korean men aged 40-49 years were examined for calcification of the coronary artery and aorta using electron beam CT. CAC and AC were quantified using the Agatston score. The authors examined the associations of cigarette smoking with CAC and AC after adjusting for conventional risk factors and alcohol consumption. Current and past smokers were combined and categorised into two groups using median pack-years as a cut-off point in each of Japanese and Koreans. The never-smoker group was used as a reference for the multiple logistic regression analyses.ResultsThe ORs of CAC (score ≥10) for smokers with higher pack-years were 2.9 in Japanese ($p<0.05$) and 1.3 in Koreans (non-significant) compared with never-smokers. The ORs of AC (score ≥100) for smokers with higher pack-years were 10.4 in Japanese ($p<0.05$) and 3.6 in Koreans ($p<0.05$).ConclusionCigarette smoking with higher pack-years is significantly associated with CAC and AC in Japanese men, while cigarette smoking with higher pack-years is significantly associated with AC but not significantly with CAC in Korean men.

http://jech.bmj.com/content/early/2012/07/28/jech-2011-200964.abstract

---

Control beliefs are related to smoking prevention in prenatal care

J Eval Clin Pract. 2012 Jul 29. doi: 10.1111/j.1365-2753.2012.01891.x. [Epub ahead of print]

Lemola S, Meyer-Leu Y, Samochowiec J, Grob A.

Abstract

BACKGROUND:

Smoking during pregnancy is one of the most important avoidable health risks for the unborn child. Gynaecologists and midwives play a fundamental role in the prevention of smoking during pregnancy. However, a large number of health care practitioners still do not address smoking in pregnant patients.

OBJECTIVES:

We examined whether gynaecologists and midwives engage in screening and counselling of pregnant women and

conducting interventions to prevent smoking during pregnancy. Further, we examined the role of gynaecologists' and midwives' control beliefs. Control beliefs involve efficacy expectations - the practitioner's confidence in his capacity to conduct prevention efforts adequately - and outcome expectations - the practitioner's expectation that such prevention efforts are successful in general.

METHODS:

A total of 486 gynaecologists and 366 midwives completed a questionnaire on screening of smoking, counselling and other interventions they conduct to prevent smoking during pregnancy. Moreover, gynaecologists and midwives rated their control beliefs regarding their influence on pregnant patients' smoking habits.

RESULTS:

The majority of gynaecologists and midwives reported screening all pregnant patients regarding smoking, explaining the risks and recommending smoking cessation. By contrast, only a minority engages in more extensive prevention efforts. Strong control beliefs were predictive of a higher likelihood of screening and counselling, as well as of engaging in more extensive interventions.

CONCLUSIONS:

The findings point to the importance of strengthening gynaecologists' and midwives' control beliefs by professional education and training on smoking prevention.

http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2753.2012.01891.x/abstract

---

Is Smoking Associated with Alcohol-Drug Dependence in Patients with Pain and Chronic Pain Patients? An Evidence-Based Structured Review

Pain Med. 2012 Jul 30. doi: 10.1111/j.1526-4637.2012.01446.x. [Epub ahead of print]

Fishbain DA, Cole B, Lewis JE, Gao J.

Abstract
Objective. The objective of this study was to determine if there is consistent evidence for smoking to be considered a red flag for development of opioid dependence during opioid exposure in patients with pain and chronic pain patients (CPPs). Methods. Six hundred and twenty-three references were found that addressed the areas of smoking, pain, and drug-alcohol dependence. Fifteen studies remained after exclusion criteria were applied and sorted into four groupings addressing four hypotheses: patients with pain and CPPs who smoke are more likely than their nonsmoking counterparts to use opioids, require higher opioid doses, be drug-alcohol dependent, and demonstrate aberrant drug-taking behaviors (ADTBs). Each study was characterized by the type of study it represented according to the Agency for Health Care Policy and Research (AHCPR) guidelines and independently rated by two raters according to 13 quality criteria to generate a quality score. The percentage of studies in each grouping supporting/not supporting each hypothesis was calculated. The strength and consistency of the evidence in each grouping was rated by the AHCPR guidelines. Results. In each grouping, 100% of the studies supported the hypothesis for that grouping. The strength and consistency of the evidence was rated as A (consistent multiple studies) for the first hypothesis and as B (generally consistent) for the other. Conclusions. There is limited consistent indirect evidence that smoking status in patients with pain and CPPs is associated with alcohol-drug and opioid dependence. Smoking status could be a red flag for opioid-dependence development on opioid exposure.

http://onlinelibrary.wiley.com/doi/10.1111/j.1526-4637.2012.01446.x/abstract

---

Higher Rates of Clostridium difficile Infection among Smokers

PLoS One. 2012;7(7):e42091. Epub 2012 Jul 27.

Rogers MA, Greene MT, Saint S, Chenoweth CE, Malani PN, Trivedi I, Aronoff DM.

Abstract

OBJECTIVES:

Cigarette smoking has been shown to be related to inflammatory bowel disease. We investigated whether smoking affected the probability of developing Clostridium difficile infection (CDI).

METHODS:

We conducted a longitudinal study of 16,781 older individuals from the nationally representative Health and Retirement Study. Data were linked to files from the Centers for Medicare and Medicaid Services.

RESULTS:

Overall, the rate of CDI in older individuals was 220.6 per 100,000 person-years (95% CI 193.3, 248.0). Rates of CDI were 281.6/100,000 person-years in current smokers, 229.0/100,000 in former smokers and 189.1/100,000 person-years in never smokers. The odds of CDI were 33% greater in former smokers (95% CI: 8%, 65%) and 80% greater in current smokers (95% CI: 33%, 145%) when compared to never smokers. When the number of CDI-related visits was evaluated, current smokers had a 75% increased rate of CDI compared to never smokers (95% CI: 15%, 167%).

CONCLUSIONS:

Smoking is associated with developing a Clostridium difficile infection. Current smokers have the highest risk, followed by former smokers, when compared to rates of infection in never smokers.

http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0042091

Also:

Intense Passionate Love Attenuates Cigarette Cue-Reactivity in Nicotine-Deprived Smokers: An fMRI Study
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0042235
Water-pipe smoking and metabolic syndrome: a population-based study
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0039734
Glutamatergic and GABAergic Metabolism in Mouse Brain under Chronic Nicotine Exposure: Implications for Addiction
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0041824
Tobacco use or body mass - do they predict tuberculosis mortality in Mumbai, India? Results from a population-based cohort study
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0039443
Social inequalities and mortality in Europe - results from a large multi-national cohort
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0039013

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

Differences in Folic Acid Use, Prenatal Care, Smoking, and Drinking in Early Pregnancy by Occupation

Prev Med. 2012 Jul 27. [Epub ahead of print]

Agopian AJ, Lupo PJ, Herdt-Losavio ML, Langlois PH, Rocheleau CM, Mitchell LE; the National Birth Defects Prevention Study.

Abstract

OBJECTIVE:

To describe differences in four high risk periconceptional behaviors (lack of folic acid supplementation, lack of early prenatal care, smoking, and drinking) by maternal occupation.

METHODS:

Analyses were conducted among women in the National Birth Defects Prevention Study who delivered liveborn infants

without birth defects. Periconceptional occupational data were collected using a computer-assisted telephone interview and occupational coding was performed using the 2000 Standard Occupational Classification System. Logistic regression analyses were conducted to determine whether prevalence of behaviors differed between occupational groups.

RESULTS:

Subjects included 5,153 women employed during early pregnancy from 1997-2007. Compared to women in management, business, science, and arts occupations, women in other occupations (e.g., service occupations) were significantly more likely to engage in all four high risk behaviors. Specifically, women in food preparation/serving-related occupations were significantly more likely to engage in all four behaviors compared to women in all other occupational groups (odds ratios: 1.8-3.0), while women in education/training/library occupations were significantly less likely to do so (odds ratios: 0.2-0.5).

CONCLUSION:

We identified several occupational groups with an increased prevalence of high-risk maternal behaviors during pregnancy. Our findings could aid in developing interventions targeted towards women in these occupational groups.

http://www.sciencedirect.com/science/article/pii/S0091743512003258

Telomere shortening and DNA damage of embryonic stem cells induced by cigarette smoke

Reprod Toxicol. 2012 Jul 20. [Epub ahead of print]

Huang J, Okuka M, Lu W, Tsibris JC, McLean MP, Keefe DL, Liu L.

Abstract

Embryonic stem cells (ESCs) provide a valuable in vitro model for testing toxicity of chemicals and environmental contaminants including cigarette smoke. Mouse ESCs were acutely or chronically exposed to smoke components, cigarette smoke condensate (CSC), or cadmium, an abundant component of CSC, and then evaluated for their self-renewal, apoptosis, DNA damage and telomere function. Acute exposure of ESCs to high dose of CSC or cadmium increased DNA damage and apoptosis. Yet, ESCs exhibited a remarkable capacity to recover following absence of exposure. Chronic exposure of ESCs to low dose of CSC or cadmium resulted in shorter telomeres and DNA damage. Together, acute exposure of ESCs to CSC or cadmium causes immediate cell death and reduces pluripotency, while chronic exposure of ESCs to CSC or cadmium leads to DNA damage and telomere shortening. Notably, a sub-proportion of ESCs during passages is selected to resist to smoke-induced oxidative damage to telomeres.

http://www.sciencedirect.com/science/article/pii/S0890623812002687

Relationship between smoking and a new index of arterial stiffness, the cardio-ankle vascular index, in male workers: a cross-sectional study

***Tobacco Induced Diseases* 2012, 10:11 (28 July 2012)**

Hata K, Nakagawa T, Mizuno M, Yanagi N, Kitamura H, Hayashi T, Irokawa M, Ogami A

Abstract

Background

Cigarette smoking is one of the major factors that increases arterial stiffness. The purpose of this study was to examine further the relationship between smoking status and arterial stiffness using a new index, the cardio-ankle vascular index (CAVI), in male Japanese workers.

Methods

This cross-sectional study included 4,729 male Japanese workers undergoing annual health checkups. CAVI was measured at the time of the annual health checkup between April 2007 and March 2008. The subjects were divided into three groups, smokers (n = 1,913), former smokers (n = 1,481) and non-smokers (n = 1,348) according to their responses to a questionnaire. We compared the CAVI in the three groups after adjusting for age. Multiple regression analysis was used to examine the association between CAVI and the number of cigarettes smoked per day in order to examine whether there was a dose-response relationship between smoking and CAVI.

Results

The mean CAVI for each group was 7.81 +/- 0.02 for smokers, 7.70 +/- 0.02 for former smokers and 7.64 +/- 0.02 for non-smokers. A significant difference was observed between each group. According to the results of multiple regression analysis, the standardized beta of the number of cigarettes smoked per day was 0.09 ($p < 0.01$). This confirmed a positive association with CAVI.

Conclusions

Our study demonstrated that there is a significant association between the number of cigarettes smoked per day and arterial stiffness, as measured by CAVI.
http://www.tobaccoinduceddiseases.com/content/10/1/11/abstract
http://www.tobaccoinduceddiseases.com/content/pdf/1617-9625-10-11.pdf

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

==========

Stan Shatenstein
Editor & Publisher, STAN Bulletin
Smoking & Tobacco Abstracts & News
5492-B Trans Island
Montreal, QC Canada H3W 3A8
shatensteins@sympatico.ca

==========

STAN Bulletin is supported by
voluntary reader contributions