From:	"Stan Shatenstein" <shatensteins@sympatico.ca></shatensteins@sympatico.ca>
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Date:	23.8.2012 13:24:03
Subject:	STAN Bulletin: 26th Edition: 23-August-2012

Smoking & Tobacco Abstracts & News STAN Bulletin 26th Edition 23-August-2012

Editor's note: The <u>Reg Tox Pharm</u> report by RJRT scientists on cadmium follows another similar one on arsenic. See the putatively reassuring 'Noteworthy' quote immediately below. Is the company looking for ingredients to remove or just attempting to exculpate those that have long been declared carcinogens?

Stan Shatenstein

Noteworthy:

"The role of women, both in terms of their own behavior and their potential influence on men is crucial. If younger women start to adopt smoking at rates comparable to many other countries, it will greatly exacerbate the public health challenges that China will face in future years. Somewhat ironically, it may be that an appropriately modified reprise of the refrain from 100 years ago which extols women for their forbearance from smoking and for being strong exemplars for their male counterparts, may serve to reinforce their generally low usage and assist the efforts to reduce male dependence. But as the history of women's smoking behavior during the rapid social changes early in the twentieth century demonstrates, ...it will be the myriad individual decisions about appropriate behavior that determines the overall outcome." [Hermalin AI, Lowry DS. The Decline of Smoking among Female Birth Cohorts in China in the 20th Century: A Case of Arrested Diffusion? *Popul Res Policy Rev*]

"It is not clear whether any one constituent in tobacco has a direct and independent effect on the development of tobacco consumption associated adverse health effects, but the evidence presented here suggests that it is possible that cadmium may not independently contribute to adverse health outcomes in tobacco consumers. Additionally, these results confirm that, in terms of exposure and risk profiles, cigarettes and SLT [smokeless tobacco] products are not the same." [Marano KM et al., R.J. Reynolds Tobacco Company, Cadmium exposure and tobacco consumption: Biomarkers and risk assessment, <u>Reg</u> <u>Tox Pharm</u>]

In the News:

- Australia: <u>Will revolution in cigarette packaging make a global difference in battling tobacco health crisis?</u>
- Australia: Sydney Morning Herald: Opinion: Big Tobacco: What have they been smoking?
- Australia: <u>Airports seek delay of tobacco allowance reduction</u>
- Australia: Tasmania: Bid to ban cigarettes for post-2000 generation; Restrictions Mulled; Black market fears
- Australia: Tasmania: KAB: National litter index claims smoke-free laws increase cigarette filth
- Australia/Asia: <u>Bloomberg View: Hawking World's Deadliest Product Just Got Harder</u>
- Australia/Ukraine: Hidden hand of big tobacco leads to WTO challenge as complaint made formal
- Denmark: Copenhagen: City aims to take voluntary measures to become smoke-free by 2025
- Israel: Scientists find smoking may slow Parkinson's disease [Parkinson Relat Disord: Greenbaum]
- Malaysia: <u>BAT/JTI: Tobacco firms agree to new minimum-price ruling</u>.
- NZ: Herald: Editorial: Plain-pack law would be plain theft; BAT launches fightback
- NZ: BAT/PM: Tobacco firms battle plain packaging; Rally with media campaign; Ministers rubbish ads
- Pakistan: Survey finds flagrant violation of anti-smoking laws as 85% of outlets sell to minors
- Syria: JTI: EU Probes Cigarette Deal That May Have Aided Assad Government
- UAE: Dubai: Graphic alert: Taking the glamour out of smoking
- UK: The Grocer: ASH: Opinion: Plain packs would deter a generation of young smokers
- US: Judge Rules Tobacco Companies Broke Law by Selling Untaxed Cigarettes to American Indian Retailers
- US: ACS: NNN: Scientists report discovery of strong oral cavity carcinogen in smokeless tobacco
- US: E-cigarettes: No smoke, but fiery debate [AJPH: Choi/Pearson; Indoor Air: Schripp; AJPM: Siegel; NEJM: Cobb]
- US: Vapor Corp: Convenience Store Customers 'Krave' Electronic Tobacco

- US: GATS: Tobacco on Pace to Kill One Billion People This Century
- US: <u>GATS: Where 'Smoke-Free' Isn't the Norm: Global Tobacco Use Booms in Developing World: Video [Lancet:</u> <u>Giovino]</u>
- US: NH: <u>State Supreme Court reverses ruling in class-action light cigarette case</u>; <u>PM wins appeal</u>
- US/Australia: <u>Huffington Post: Opinion: Why The Heck Are You Still Smoking?</u>

In this Edition:

- APJCP Valliani: Pakistan: Karachi: Smokeless Tobacco Use among Tertiary Care Hospital Staff
- Circ Mozaffarian: US: AHA: Population Approaches to Improve Diet, Physical Activity & Smoking Habits
- Diab Metab Syndr Osme: Brazil: Depression, anxiety, type 2 diabetes, smoking & nicotine dependence
- EJPH Kontou: Greece: Mediterranean diet mediating effect on smoking & colorectal cancer relation
- Eur Neuropsychopharm Effertz: EU: Brain disorder burden & cost, harmful alcohol use & nicotine addiction
- FASEB J Jensen: General mechanisms of nicotine-induced fibrogenesis
- HER Kandra: US: NC: Evaluation of state-sponsored youth tobacco prevention media campaign
- Inhal Toxicol Khabour: Jordan: Acute waterpipe TS exposure & oxidative & inflammatory lung markers
- Int J Cardiol Grundtvig: Norway: Reduced life expectancy after incident hospital AMI diagnosis: Smoking effects
- J Affect Disord Edwards: US: VA: Depression & nicotine dependence in twins: Shared liability or causal relationship?
- J Alt Compl Med Sood: SAMe: S-Adenosyl-I-Methionine for Smoking Abstinence: RCT
- J Chromatogr Sci Luo: China: Optimization Extraction Process of Aroma Components in Tobacco
- J Neurochem Natividad: Excitatory & inhibitory mesolimbic dopamine modulation mechanisms & nicotine withdrawal
- J Ophthalmol El-Shazly: Egypt: Passive smoking as dry eye risk factor in children
- J Thromb Haemost Enga: Norway: Tromsø: Cigarette smoking & venous thromboembolism risk
- JMIR Elfeddali: NL: Preventing Smoking Relapse via Web-Based Computer-Tailored Feedback: RCT
- Mat Child Health J Masho: US: Least Explored Factors Associated with Prenatal Smoking
- NBER Callison: US: New Evidence of Recent Cigarette Tax Increases Effect on Adult Smoking
- Nurs Wom Health Gies: US: Women & smoking: Have we come a long way, baby?
- Popul Res Pol Rev Hermalin: China: Decline of 20th Century Female Birth Cohort Smoking: Arrested Diffusion?
- Reg Tox Pharm Marano: RJRT: Cadmium exposure & tobacco consumption: Biomarkers & risk assessment
- Scand J Pub Health Levy: Finland: SimSmokeFinn: How far can TC policies move toward tobacco-free 2040 goals?
- Sleep Med Brook: US: Adult cigarette smoking trajectories predict late mid-life insomnia in women
- Tob Control Gould: Should anti-tobacco media messages be culturally targeted for Indigenous populations?

Abstracts:

Use of Smoke-less Tobacco Amongst the Staff of Tertiary Care Hospitals in the Largest City of Pakistan

Asian Pac J Cancer Prev. 2012;13(5):2315-7

Valliani A, Ahmed B, Nanji K, Valliani S, Zulfiqar B, Fakih M, Mehdi M, Khan A, Sheikh SA, Fatima N, Ahmad S, Farah F, Saleem S, Ather S, Majid SK, Hashmi SS, Arjan S.

Abstract

Background: Use of smoke-less tobacco (SLT) is very common in South and South-East Asian countries. It is significantly associated with various types of cancers. The objectives of this study were to assess the proportion of hospital staff that use SLT, and to identify the factors associated with its use and their practices. Methods: In a cross-sectional study, 560 staff of two tertiary care hospitals were interviewed in the year 2009. Nurses, ward boys and technicians were counted as a paramedic staff while drivers, peons, security guards and housekeeping staff were labeled as non-paramedic staff. SLT use was considered as usage of any of the following: betel quid (paan) with or without tobacco, betel nuts with or without tobacco (gutkha) and snuff (naswar). Results: About half (48.6%) of the hospital staff were using at least one type of SLT. Factors found to be statistically significant with SLT were being a male (OR=2.5; 95% CI=1.8-3.7); having no/fewer years of education (OR=1.7; 95% CI=1.2-2.4) and working as non-paramedic staff (OR=2.6; 95% CI=1.8-3.8). Majority of SLT users were using it on regular basis, for > 5 years and keeping the tobacco products in the oral cavity for >30 minutes. About half of the users started due to peer pressure and had tried to quit this habit but failed. Conclusion: In this study, about half of the study participants were using SLT in different forms. We

suggest educational and behavioral interventions for control of SLT usage.

http://www.apocpcontrol.org/page/apjcp issues view.php?sid=Entrez:PubMed&id=pmid:22901213&key=2012.13.5.2315 http://www.apocpcontrol.org/paper file/issue abs/Volume13 No5/2315-17%204.22%20Arif%20Valliani.pdf

Also:

Smoking Trajectories among Koreans in Seoul and California: Exemplifying a Common Error in Age Parameterization http://www.apocpcontrol.org/page/apjcp issues view.php?sid=Entrez:PubMed&id=pmid:22901135&key=2012.13.5.1851 http://www.apocpcontrol.org/paper/file/issue/abs/Volume13/No5/1851-56%203.25%20Jon-Patrick%20Allem.pdf Acute Effects of Dokha Smoking on the Cardiovascular and Respiratory Systems among UAE Male University Students http://www.apocpcontrol.org/page/apjcp issues view.php?sid=Entrez:PubMed&id=pmid:22901128&key=2012.13.5.1819 http://www.apocpcontrol.org/page/apjcp issues view.php?sid=Entrez:PubMed&id=pmid:22901128&key=2012.13.5.1819 http://www.apocpcontrol.org/page/apjcp issues view.php?sid=Entrez:PubMed&id=pmid:22901128&key=2012.13.5.1819 http://www.apocpcontrol.org/page/apjcp issues view.php?sid=Entrez:PubMed&id=pmid:22901128&key=2012.13.5.1819 http://www.apocpcontrol.org/page/apjcp issues view.php?sid=Entrez:PubMed&id=pmid:22901128&key=2012.13.5.1819

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

Population Approaches to Improve Diet, Physical Activity, and Smoking Habits: A Scientific Statement From the American Heart Association

Circulation. 2012 Aug 20. [Epub ahead of print]

Mozaffarian D, Afshin A, Benowitz NL, Bittner V, Daniels SR, Franch HA, Jacobs DR Jr, Kraus WE, Kris-Etherton PM, Krummel DA, Popkin BM, Whitsel LP, Zakai NA; on behalf of the American Heart Association Council on Epidemiology and Prevention, Council on Nutrition, Physical Activity and Metabolism, Council on Clinical Cardiology, Council on Cardiovascular Disease in the Young, Council on the Kidney in Cardiovasc.

Abstract

BACKGROUND:

Poor lifestyle behaviors, including suboptimal diet, physical inactivity, and tobacco use, are leading causes of preventable diseases globally. Although even modest population shifts in risk substantially alter health outcomes, the optimal population-level approaches to improve lifestyle are not well established.

METHODS AND RESULTS:

For this American Heart Association scientific statement, the writing group systematically reviewed and graded the current scientific evidence for effective population approaches to improve dietary habits, increase physical activity, and reduce tobacco use. Strategies were considered in 6 broad domains: (1) Media and educational campaigns; (2) labeling and consumer information; (3) taxation, subsidies, and other economic incentives; (4) school and workplace approaches; (5) local environmental changes; and (6) direct restrictions and mandates. The writing group also reviewed the potential contributions of healthcare systems and surveillance systems to behavior change efforts. Several specific population interventions that achieved a Class I or IIa recommendation with grade A or B evidence were identified, providing a set of specific evidence-based strategies that deserve close attention and prioritization for wider implementation. Effective interventions included specific approaches in all 6 domains evaluated for improving diet, increasing activity, and reducing tobacco use. The writing group also identified several specific interventions in each of these domains for which current evidence was less robust, as well as other inconsistencies and evidence gaps, informing the need for further rigorous and interdisciplinary approaches to evaluate population programs and policies.

CONCLUSIONS:

This systematic review identified and graded the evidence for a range of population-based strategies to promote lifestyle change. The findings provide a framework for policy makers, advocacy groups, researchers, clinicians, communities, and other stakeholders to understand and implement the most effective approaches. New strategic initiatives and partnerships are needed to translate this evidence into action.

http://circ.ahajournals.org/content/early/2012/08/19/CIR.0b013e318260a20b.abstract http://circ.ahajournals.org/content/early/2012/08/19/CIR.0b013e318260a20b.long

Note: Open Access. Full text PDF freely available from link immediately above. Supplementary Tables, linked below, also Open Access.

Difference between the prevalence of symptoms of depression and anxiety in non-diabetic smokers and in patients with type 2 diabetes with and without nicotine dependence

Diabetol Metab Syndr. 2012 Aug 21;4(1):39. [Epub ahead of print]

Osme SF, Jorge MT, Ferreira LD, Andréo JS, Jorge ML, Pinto RM, Jorge MT, Jorge PT.

Abstract

BACKGROUND:

Individuals with diabetes who are smokers have higher risks of cardiovascular disease, premature death, and microvascular complications. The present study aims to determine the prevalence of symptoms of depression and anxiety in smokers with type 2 diabetes mellitus (T2D) and to evaluate if the prevalence of symptoms of depression and anxiety differ between the three groups studied (patients with T2D who smoke; patients with T2D who do not smoke; smokers without T2D), and finally determine if the degree of nicotine dependence is related to symptoms of anxiety and depression in smokers (with or without T2D).

METHODS:

Three study groups were formed: 46 T2D smokers (DS), 46 T2D non-smokers (D), and 46 smokers without diabetes (S), totaling 138 participants. Hospital Anxiety and Depression (HAD) scale and Fagerstrom Test were applied.

RESULTS:

The prevalence of symptoms of depression and anxiety in smokers with T2D was 30.4% and 50%, respectively. There was no significant difference in the proportion of individuals with symptoms of anxiety (p = 0.072) or depression (p = 0.657) in the DS group compared to group D or S. Among male patients with T2D, the smokers had a higher prevalence of anxiety symptoms (19.6%) than non-smokers (2.9%) (p = 0.003). The prevalence of high nicotine dependence among smokers with and without T2D was 39.1% and 37.1%, respectively (p = 0.999). Fagerstrom scores showed no significant correlation with the scores obtained on the subscale of anxiety (p = 0.726) or depression (p = 0.345).

CONCLUSIONS:

The prevalence of depression and anxiety among smokers with and without diabetes and non-smokers T2D is similar. Among male individuals with T2D, the smokers have more symptoms of anxiety than the non-smokers. There is no difference in the prevalence of nicotine dependence among smokers with and without diabetes. The presence of symptoms of anxiety or depression is similar between patients who are dependent and not dependent on nicotine.

http://www.dmsjournal.com/content/4/1/39/abstract http://www.dmsjournal.com/content/pdf/1758-5996-4-39.pdf

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

The mediating effect of Mediterranean diet on the relation between smoking and colorectal cancer: a casecontrol study

Eur J Public Health. 2012 Aug 20. [Epub ahead of print]

Kontou N, Psaltopoulou T, Soupos N, Polychronopoulos E, Xinopoulos D, Linos A, Panagiotakos DB.

BACKGROUND:

The protective role of Mediterranean diet (MD) and the detrimental effect of smoking on colorectal cancer (CRC) have already been shown. The aim of this work was to evaluate the potential mediating effect of MD on the association between the aforementioned factor (smoking) and CRC.

METHODS:

It is a case-control study. Two hundred fifty consecutive patients with CRC (63 ± 12 years, 59% males) and 250 age-sex group-matched controls, both from the area of Attica, were studied. Various socio-demographic, clinical, lifestyle (including detailed smoking habits) and dietary characteristics were measured. Adherence to the MD was evaluated using the MedDietScore (theoretical range 0-55).

RESULTS:

Each unit increase in the MedDietScore was associated with 13% lower likelihood of CRC (P < 0.001). Smoking habits were associated with 2.9-fold the likelihood of CRC among participants who were away from the MD (i.e. MedDietScore < 29) and with 2.1-fold the likelihood of CRC among those who were close to the MD (P < 0.05).

CONCLUSIONS:

Adherence to the MD was associated with a less detrimental association of smoking habits with CRC, suggesting indirect benefits of adherence to this dietary pattern with regards to CRC morbidity and mortality.

http://eurpub.oxfordjournals.org/content/early/2012/08/18/eurpub.cks109.abstract

The burden and cost of disorders of the brain in Europe with the inclusion of harmful alcohol use and nicotine addiction

Eur Neuropsychopharmacol. 2012 Aug 14. [Epub ahead of print]

Effertz T, Mann K.

Abstract

Recent publications calculated an annual prevalence of 38% of the population within the European Union having a "disorder of the brain" including substance use disorders (SUD) (Wittchen et al., 2011). The overall economic burden was estimated at 789 billion \in (Gustavsson et al., 2011). While these calculations included alcohol dependence, harmful use of alcohol, a common ICD-10 diagnosis, was not considered appropriately. Tobacco related figures were completely left out. We hence estimated burden and costs of these diagnoses for the European Union by extrapolating basic figures from Germany, which have average proportions of alcohol and tobacco related consumption and prevalence rates. Several German Data sets were used to estimate prevalence, disability adjusted life years (DALYs) and Cost-of-Illness for alcohol and tobacco use disorders in Germany. Results were obtained by focussing on the burden of SUD including well-known comorbidities. Results were then extrapolated to the European level. Compared with the earlier estimations DALYs increased from 2.8 million to over 6.6 million for SUDs. Costs augmented from 65.68 billion \in PPP to about 350 billion \in PPP. We discuss the robustness and validity of our findings under different assumptions and with regard to methodology. We further took into account that in the new DSM 5 alcohol abuse and alcohol dependence - and similar tobacco - will be collapsed into one category of "alcohol related disorder". If added to the burden and cost calculations the substance use disorders rank on top of all disorders of the brain in Europe. Regardless of the calculation procedure our figures represent lower estimates and have to be regarded as conservative approaches.

http://www.europeanneuropsychopharmacology.com/article/S0924-977X%2812%2900192-7/abstract http://www.sciencedirect.com/science/article/pii/S0924977X12001927

General mechanisms of nicotine-induced fibrogenesis

FASEB J. 2012 Aug 20. [Epub ahead of print]

Jensen K, Nizamutdinov D, Guerrier M, Afroze S, Dostal D, Glaser S.

Abstract

Cigarette smoking contributes to the development of cancer, and pathogenesis of other diseases. Many chemicals have been identified in cigarettes that have potent biological properties. Nicotine is especially known for its role in addiction and plays a role in other physiological effects of smoking and tobacco use. Recent studies have provided compelling evidence that, in addition to promoting cancer, nicotine also plays a pathogenic role in systems, such as the lung, kidney, heart, and liver. In many organ systems, nicotine modulates fibrosis by altering the functions of fibroblasts. Understanding the processes modulated by nicotine holds therapeutic potential and may guide future clinical and research decisions. This review discusses the role of nicotine in the general fibrogenic process that governs fibrosis and fibrosis-related diseases, focusing on the cellular mechanisms that have implications in multiple organ systems. Potential research directions for the management of nicotine-induced fibrosis, and potential clinical considerations with regard to nicotine-replacement therapy (NRT) are presented.

http://www.fasebj.org/content/early/2012/08/20/fj.12-206458.abstract

The evaluation of North Carolina's state-sponsored youth tobacco prevention media campaign

Health Educ Res. 2012 Aug 20. [Epub ahead of print]

Kandra KL, McCullough A, Summerlin-Long S, Agans R, Ranney L, Goldstein AO.

Abstract

In 2003, the state of North Carolina (NC) implemented a multi-component initiative focused on teenage tobacco use prevention and cessation. One component of this initiative is Tobacco.Reality.Unfiltered. (TRU), a tobacco prevention media campaign, aimed at NC youth aged 11-17 years. This research evaluates the first 5 years of the TRU media campaign, from 2004 to 2009, using telephone surveys of NC youth. Overall, TRU campaign awareness was moderate among youth in its first year, with awareness significantly increasing over time. The majority of youth who saw the advertisements reported that they were convincing, attention grabbing and gave good reasons not to smoke. In 2009, logistic regression models revealed awareness of the TRU advertisements was associated with decreased odds of current smoking and experimenting with cigarettes for at-risk NC youth. Results from this research may help other states to define, evaluate and modify their own media campaigns, especially within financially or politically constraining environments.

http://her.oxfordjournals.org/content/early/2012/08/10/her.cys085.abstract

Acute exposure to waterpipe tobacco smoke induces changes in the oxidative and inflammatory markers in mouse lung

Inhal Toxicol. 2012 Aug;24(10):667-75.

Khabour OF, Alzoubi KH, Bani-Ahmad M, Dodin A, Eissenberg T, Shihadeh A.

Abstract

Context: Tobacco smoking represents a global public health threat, claiming approximately 5 million lives a year. Waterpipe tobacco use has become popular particularly among youth in the past decade, buttressed by the perception that the waterpipe "filters" the smoke, rendering it less harmful than cigarette smoke. Objective: In this study, we examined the acute exposure of waterpipe smoking on lung inflammation and oxidative stress in mice, and compared that to cigarette smoking. Materials and methods: Mice were divided into three groups; fresh air control, cigarette and waterpipe. Animals were exposed to fresh air, cigarette, or waterpipe smoke using whole body exposure system one hour daily for 7 days. Results: Both cigarette and waterpipe smoke exposure resulted in elevation of total white blood cell count, as well as absolute count of neutrophils, macrophages, and lymphocytes (P < 0.01). Both exposures also elevated proinflammatory markers such as TNF- α and IL-6 in BALF (P < 0.05), and oxidative stress markers including GPx activity in lungs (P < 0.05). Moreover, waterpipe smoke increased catalase activity in the lung (P < 0.05). However, none of the treatments altered IL-10 levels. Discussion and conclusion: Results of cigarette smoking confirmed previous finding. Waterpipe results indicate that, similar to cigarettes, exposure to waterpipe tobacco smoke is harmful to the lungs.

http://informahealthcare.com/doi/abs/10.3109/08958378.2012.710918

Reduced life expectancy after an incident hospital diagnosis of acute myocardial infarction - Effects of smoking in women and men

Int J Cardiol. 2012 Aug 16. [Epub ahead of print]

Grundtvig M, Hagen TP, Amrud ES, Reikvam A.

Abstract

BACKGROUND:

The aim was to investigate possible gender differences in the years of life lost after acute myocardial infarction (MI) and to explore how smoking affects life expectancy in the two genders.

METHODS:

In the years 1998-2005, 2281 patients (36.8% women) who were discharged from or died in hospital following a diagnosis of MI were included. Survivors were followed for a mean of 8years. The age of death for each patient was subtracted from the average projected age of death for individuals in the general population with a similar age to the patient at the time of their MI. The effects of gender, smoking, and other risk factors on the years of life lost were analysed.

RESULTS:

During follow-up, 55% of the patients died. Non-smokers, ex-smokers and current smokers lost 5.4, 6.4 and 10.3 years of life, respectively. Structural equation modeling showed that currently smoking men lost 4.2 more years more than did non-smoking men (P<0.001), and this was mediated through more prematurely occurring MIs. Female current smokers lost 1.9 years more than male current smokers and female ex-smokers lost 1.8 years more than male ex-smokers (both P<0.001).

CONCLUSIONS:

MI caused a substantial number of years of life lost, with a heavier loss in current smokers than in ex-smokers and nonsmokers. The effect was predominantly related to the patient's age at the event. More years of life were lost among smoking women than among smoking men, indicating that smoking is most detrimental for the female gender.

http://www.internationaljournalofcardiology.com/article/S0167-5273%2812%2900962-X/abstract http://www.sciencedirect.com/science/article/pii/S016752731200962X

A twin study of depression and nicotine dependence: Shared liability or causal relationship?

J Affect Disord. 2012 Aug 15. [Epub ahead of print]

Edwards AC, Kendler KS.

Abstract

BACKGROUND:

The nature of the relationship between major depression (MD) and phenotypes related to smoking behavior, including nicotine dependence (ND), is complicated. We present results from analyses comparing models wherein MD and ND are influenced by a shared latent factor to one in which causal pathways between phenotypes are examined.

METHOD:

Data were collected for 2906 adult male twins from a population-based sample. Structural equation modeling was used to derive path estimates for shared liability and causal models. MD was assessed according to DSM-III-R diagnostic criteria;

ND was assessed using the Fagerstrom Test for Nicotine Dependence (FTND).

RESULTS:

The best fitting shared liability model included genetic, but not environmental, influences shared between MD and FTND; a small proportion of these shared influences were also common to smoking initiation. The best fitting causal model included a unidirectional causal path from FTND to MD, with no direct genetic correlation between MD and smoking initiation. Model fit statistics indicated that these models provided nearly identical fits to the data, with the causal model providing a slightly superior AIC value.

CONCLUSIONS:

The phenotypic association between MD and FTND is likely due to both a causal relationship, wherein increasing levels of nicotine dependence increase one's risk for depression, and to a shared genetic liability between the two.

LIMITATIONS:

This sample consists of Caucasian males born in Virginia, and findings might not be generalizable to others. Statistical power was less than ideal.

http://www.sciencedirect.com/science/article/pii/S0165032712002509

S-Adenosyl-I-Methionine (SAMe) for Smoking Abstinence: A Randomized Clinical Trial

J Altern Complement Med. 2012 Aug 17. [Epub ahead of print]

Sood A, Prasad K, Croghan IT, Schroeder DR, Ehlers SL, Ebbert JO.

Abstract

Objectives: S-Adenosyl-I-methionine (SAMe) is a dietary supplement commonly used to treat depression. SAMe facilitates dopamine and norepinephrine synthesis in the central nervous system. This study investigated the efficacy of SAMe for increasing tobacco abstinence among cigarette smokers. Design: A randomized, blinded, placebo-controlled, three-arm, dose-ranging clinical trial was conducted. Subjects were randomly allocated to receive SAMe 1600 mg or 800 mg by mouth every day or a matching placebo for 8 weeks. All subjects received a behavioral smoking cessation intervention. Self-reported smoking abstinence was biochemically confirmed with exhaled-air carbon monoxide. Subjects: Subjects in the study comprised 120 adults. Results: One hundred and twenty (120) subjects with a mean age of 40.0±14.0 (SD) years were enrolled. Participants smoked an average of 19.6±8.6 cigarettes per day for 21±13.2 years. The study dropout rate was high (42.5%). By intention-to-treat analysis, no significant differences were observed in abstinence rates at 8 and 24 weeks between SAMe dose groups and placebo. SAMe did not attenuate withdrawal symptoms among abstinent subjects. Rates of gastrointestinal side-effects were higher with SAMe 1600 mg/d compared to placebo. Conclusions: SAMe did not increase smoking abstinence rates. Abstinence and tobacco withdrawal data from this clinical trial suggest that SAMe holds little promise for the treatment of tobacco dependence.

http://online.liebertpub.com/doi/abs/10.1089/acm.2011.0462

Optimization Extraction Process of Aroma Components in Tobacco

J Chromatogr Sci. 2012 Aug 19. [Epub ahead of print]

Luo H, Cheng H, Du W, Wang S, Wang C, Chang S, Dong S, Xu C, Zhang J. Hongyun and Honghe Tobacco (Group) Limited Company, Kunming, China.

Abstract

This paper concerns the optimization of the simultaneous distillation extraction process of volatile aromatic components in flue-cured tobacco leaves by single-factor experiments and response surface methodology (RSM). The qualitative and quantitative analysis of the aroma components was performed by gas chromatography-mass spectrometry. The single-factor experiments were adopted to investigate the effects of five independent variables (including material/liquid ratio, distillation time, dosage of NaCl, volume of CH(2)Cl(2) and water-bath temperature) on the extraction of aroma

components in tobacco. Furthermore, RSM was employed to study the relationship among the five independent variables and their effects on the extraction of aroma components. The results showed that the optimal extraction conditions were as follows: 1:12 ratio of material to solvent, 3.20 h distillation time, 1:1 ratio of NaCl and tobacco, 2:1 ratio of CH2Cl2 and tobacco, 60°C water-bath temperature. Under the optimized conditions, the maximum extraction amount of aroma components reached 2.27 mg/g.

http://chromsci.oxfordjournals.org/content/early/2012/08/19/chromsci.bms136.abstract

Note: Tobacco industry research. No Conflict of Interest statement or Acknowledgement.

Adolescent rats are resistant to adaptations in excitatory and inhibitory mechanisms that modulate mesolimbic dopamine during nicotine withdrawal

J Neurochem. 2012 Aug 21. doi: 10.1111/j.1471-4159.2012.07926.x. [Epub ahead of print]

Natividad LA, Parsons LH, Torres O, O'Dell LE.

Abstract

Adolescent smokers report enhanced positive responses to tobacco and fewer negative effects of withdrawal from this drug than adults, and this is believed to propel higher tobacco use during adolescence. Differential dopaminergic responses to nicotine are thought to underlie these age-related effects, since adolescent rats experience lower withdrawal-related deficits in nucleus accumbens (NAcc) dopamine versus adults. This study examined whether age differences in NAcc dopamine during withdrawal are mediated by excitatory or inhibitory transmission in the ventral tegmental area (VTA) dopamine cell body region. In vivo microdialysis was used to monitor extracellular levels of glutamate and gamma-aminobutyric acid (GABA) in the VTA of adolescent and adult rats experiencing nicotine withdrawal produced decreases in VTA glutamate levels (44% decrease) and increases in VTA GABA levels (38% increase). In contrast, adolescents did not exhibit changes in either of these measures. Naïve controls of both ages did not display changes in NAcc dopamine, VTA glutamate or VTA GABA following mecamylamine. These results indicate that adolescents display resistance to withdrawal-related neurochemical processes that inhibit mesolimbic dopamine function in adults experiencing nicotine withdrawal. Our findings provide a potential mechanism involving VTA amino acid neurotransmission that modulates age differences during withdrawal.

http://onlinelibrary.wiley.com/doi/10.1111/j.1471-4159.2012.07926.x/abstract

Passive smoking as a risk factor of dry eye in children

J Ophthalmol. 2012;2012:130159. Epub 2012 Jul 31.

El-Shazly AA, El-Zawahry WM, Hamdy AM, Ahmed MB.

Abstract

Purpose. Adult active smoking is a risk factor for dry eye. We hypothesize that passive smoking in children can also produce the same effects. Methods. We included 112 school children presenting with eye discomfort. Assessment of eye dryness and its severity levels depending on symptoms of dry eye, visual symptoms, tear breakup time (TBUT), Schirmer-1 test, and corneal fluorescein staining were done for all of them. Exposure to cigarette smoking was assessed by history-taking and urinary cotinine levels. Results. Dry eye was found in 80/112 children. Passive smoking was documented in 76/112 children. Number of cigarettes to which the child was exposed per day and the duration of exposure to passive smoking were significantly higher in children with dry eye compared to those without. Urinary cotinine, and cotinine/creatinine ratio (CCR) was significantly higher in children with dry eye were CCR and number of cigarettes/day. Conclusion. Passive smoking represents a significant risk factor of dry eye in children comparable to that shown with active adult smoking. Male children are more prone to this effect.

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3415091/ http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3415091/pdf/JOP2012-130159.pdf

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

Cigarette smoking and the risk of venous thromboembolism. the Tromsø study

<u>J Thromb Haemost.</u> 2012 Aug 10. doi: 10.1111/j.1538-7836.2012.04880.x. [Epub ahead of print] Enga KF, Braekkan SK, Hansen-Krone IJ, le Cessie S, Rosendaal FR, Hansen JB.

Summary

Background: Conflicting findings have been reported on the association between smoking and risk of venous thromboembolism (VTE). Objectives: We conducted a prospective, population-based cohort study to investigate the association between cigarette smoking and risk of incident VTE. Patients/Methods: Information on smoking habits was assessed by self-administered questionnaires in 24 576 subjects, aged 25-96 years, participating in the fourth Tromsø study in 1994/95. Incident cases of VTE were registered until the end of follow-up, September 1, 2007. Results: A total of 389 incident VTE events (1.61 per 1000 person-years) were registered during follow-up (median 12.5 years). Heavy smokers (>20 pack-years) had a hazard ratio of 1.46 (95% CI: 1.04-2.05) for total VTE, and 1.75 (95% CI: 1.14-2.69) for provoked VTE compared to never smokers. The risk of provoked VTE increased with higher pack-years of smoking (p=0.02). Smoking was not associated with risk of unprovoked VTE. Number of pack-years of smoking and VTE disappeared, when failure times were censored at the occurrence of cancer or myocardial infarction. Conclusions: Heavy smoking was apparently a risk factor for provoked VTE in analyses with events of VTE as the only outcome. Lack of association between smoking and risk of VTE in analyses censored at the occurrence of cancer or myocardial infarction, may suggest that smoking-attributable diseases or other predisposing factors are essential for smoking to convey risk of venous thromboembolism.

http://onlinelibrary.wiley.com/doi/10.1111/j.1538-7836.2012.04880.x/abstract

Preventing Smoking Relapse via Web-Based Computer-Tailored Feedback: A Randomized Controlled Trial

J Med Internet Res. 2012 Aug 20;14(4):e109

Elfeddali I, Bolman C, Candel MJ, Wiers RW, de Vries H.

Abstract

BACKGROUND:

Web-based computer-tailored approaches have the potential to be successful in supporting smoking cessation. However, the potential effects of such approaches for relapse prevention and the value of incorporating action planning strategies to effectively prevent smoking relapse have not been fully explored. The Stay Quit for You (SQ4U) study compared two Web-based computer-tailored smoking relapse prevention programs with different types of planning strategies versus a control group.

OBJECTIVES:

To assess the efficacy of two Web-based computer-tailored programs in preventing smoking relapse compared with a control group. The action planning (AP) program provided tailored feedback at baseline and invited respondents to do 6 preparatory and coping planning assignments (the first 3 assignments prior to quit date and the final 3 assignments after quit date). The action planning plus (AP+) program was an extended version of the AP program that also provided tailored feedback at 11 time points after the quit attempt. Respondents in the control group only filled out questionnaires. The study also assessed possible dose-response relationships between abstinence and adherence to the programs.

METHODS:

The study was a randomized controlled trial with three conditions: the control group, the AP program, and the AP+ program. Respondents were daily smokers (N = 2031), aged 18 to 65 years, who were motivated and willing to quit smoking within 1 month. The primary outcome was self-reported continued abstinence 12 months after baseline. Logistic regression analyses were conducted using three samples: (1) all respondents as randomly assigned, (2) a modified sample that excluded respondents who did not make a quit attempt in conformance with the program protocol, and (3) a

minimum dose sample that also excluded respondents who did not adhere to at least one of the intervention elements. Observed case analyses and conservative analyses were conducted.

RESULTS:

In the observed case analysis of the randomized sample, abstinence rates were 22% (45/202) in the control group versus 33% (63/190) in the AP program and 31% (53/174) in the AP+ program. The AP program (odds ratio 1.95, P = .005) and the AP+ program (odds ratio 1.61, P = .049) were significantly more effective than the control condition. Abstinence rates and effects differed per sample. Finally, the results suggest a dose-response relationship between abstinence and the number of program elements completed by the respondents.

CONCLUSION:

Despite the differences in results caused by the variation in our analysis approaches, we can conclude that Web-based computer-tailored programs combined with planning strategy assignments and feedback after the quit attempt can be effective in preventing relapse 12 months after baseline. However, adherence to the intervention seems critical for effectiveness. Finally, our results also suggest that more research is needed to assess the optimum intervention dose.

TRIAL REGISTRATION:

Dutch Trial Register: NTR1892; <u>http://www.trialregister.nl/trialreg/admin/rctview.asp?TC=1892</u> (Archived by WebCite at <u>http://www.webcitation.org/693S6uuPM</u>).

http://www.jmir.org/2012/4/e109/

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

Least Explored Factors Associated with Prenatal Smoking

Matern Child Health J. 2012 Aug 19. [Epub ahead of print]

Masho SW, Bishop DL, Keyser-Marcus L, Varner SB, White S, Svikis D.

Abstract

Poor pregnancy and birth outcomes are major problems in the United States, and maternal smoking during pregnancy has been identified as one of the most preventable risk factors associated with these outcomes. This study examines less explored risk factors of smoking among underserved African American pregnant women. A cross-sectional survey was conducted at an outpatient obstetrics-gynecology clinic of an inner-city university hospital in Virginia from March 2009 through January 2011 in which pregnant women (N = 902) were interviewed at their first prenatal care visit. Survey questions included items related to women's sociodemographic characteristics as well as their pregnancy history; criminal history; receipt of social services; child protective services involvement; insurance status; and history of substance abuse, domestic violence, and depression. Multiple logistic regression was conducted to calculate odds ratios and 95 % confidence intervals depicting the relationship between these factors and smoking during pregnancy. The analysis reported that maternal age [OR = 1.08, 95 % CI = 1.05-1.12], less than high school education [OR = 4.30, 95 % CI = 2.27-8.14], unemployed [OR = 2.33, 95 % CI = 1.35-4.04], criminal history [OR = 1.66, 95 % CI = 1.05-2.63], receipt of social services [OR = 2.26, 95 % CI = 1.35-3.79] alcohol use [OR = 2.73, 95 % CI = 1.65-4.51] and illicit drug use [OR = 1.97, 95 % CI = 1.04-3.74] during pregnancy were statistically significant risk factors associated with smoking during pregnancy. In addition to the well known risk factors, public health professionals should be aware that criminal history and receipt of social services are important factors associated with smoking during pregnancy. Social service providers such as WIC and prisons and jails may offer a unique opportunity for education and cessation interventions during the preconception or interconception period.

http://www.springerlink.com/content/n3jh71320j14x58u/

Do Higher Tobacco Taxes Reduce Adult Smoking? New Evidence of the Effect of Recent Cigarette Tax Increases on Adult Smoking

Issued in August 2012

Kevin Callison, Robert Kaestner

Abstract

There is a general consensus among policymakers that raising tobacco taxes reduces cigarette consumption. However, evidence that tobacco taxes reduce adult smoking is relatively sparse. In this paper, we extend the literature in two ways: using data from the Current Population Survey Tobacco Use Supplements we focus on recent, large tax changes, which provide the best opportunity to empirically observe a response in cigarette consumption, and employ a novel paired difference-in-differences technique to estimate the association between tax increases and cigarette consumption. Estimates indicate that, for adults, the association between cigarette taxes and either smoking participation or smoking intensity is negative, small and not usually statistically significant. Our evidence suggests that increases in cigarette taxes are associated with small decreases in cigarette consumption and that it will take sizable tax increases, on the order of 100%, to decrease adult smoking by as much as 5%.

http://papers.nber.org/papers/w18326

At 60

Have we come a long way, baby?: women and smoking

Nurs Womens Health. 2011 Oct;15(5):413-7. doi: 10.1111/j.1751-486X.2011.01665.x.

Gies CE.

It was in the 60th year of my mother's life, after she had smoked for four decades, that a routine chest x-ray changed everything. The doctor called to tell her, "There's a spot on your lung." Eleven months later, in the early spring of 1990, lung cancer claimed her as one of the 419,000 American casualties attributed to smoking (Centers for Disease Control and Prevention [CDC], <u>1993</u>). The tobacco company marketing geniuses learned many years earlier how to lure women into their tobacco den. The "may be hazardous to your health" warnings on cigarette packages had been around for 25 years but were easily dismissed. Female consumers were reassured by the new improved low tar, ultra low tar, low nicotine, milder, mentholated, smoother tasting, filtered and "safer" cigarettes. There were stylish, feminine, slim brands of cigarettes marketed for weight control, sex appeal, sophistication, independence and empowerment. Their catchy slogans were everywhere, including *You've come a long way, baby, It's a woman's thing* and *Find your voice* (American Lung Association, <u>2009</u>). So, my mother and her friends laughed and relaxed and smoked, oblivious to the cancer that patiently stalked her. By the time she died, lung cancer had surpassed breast cancer as the leading cause of cancer-related deaths in women and lung cancer mortality rates were climbing by 600 percent...a trend that continues today (CDC, <u>2009</u>)...

As a 60-year-old woman today, I mourn the early loss of my mother at age 60. She was an unnecessary victim of a preventable disease.

Little did she know when she picked up her first cigarette that the cigarette is the only legally available product that when "used as directed" will kill the user and injure others (American Lung Association, <u>n.d.</u>). Thankfully, there are health care advocates and researchers committed to getting the word out to women that a deadly killer is still on the loose.

Conclusion

Nine years ago the Surgeon General reported a "vision for the future" to reduce smoking among women (CDC, 2002). Box <u>3</u> summarizes the highlights of this vision. Practicing nurses and nurse leaders should be aware of and actively support these strategies as we work together to reduce smoking and smoking-related diseases and death in women. Only when we wipe out tobacco use among women will we truly be able to proclaim that we have "come a long way, baby."

http://onlinelibrary.wiley.com/doi/10.1111/j.1751-486X.2011.01665.x/abstract

The Decline of Smoking among Female Birth Cohorts in China in the 20th Century: A Case of Arrested Diffusion?

Popul Res Policy Rev. 2012 Aug;31(4):545-570.

Hermalin AI, Lowry DS.

Abstract

The smoking prevalence by age of women in China is distinct from most other countries in showing more frequent smoking among older women than younger. Using newly developed birth cohort histories of smoking, the authors demonstrate that although over one quarter of women born 1908-1912 smoked, levels of smoking declined across successive cohorts. This occurred despite high rates of smoking by men and the wide availability of cigarettes. The analysis shows how this pattern is counter to that predicted by the leading theoretical perspectives on the diffusion of smoking and suggests that it arose out of a mix of Confucian traditions relating to gender and the socio-economic and political events early in the 20(th) century which placed emerging women's identities in conflict with national identities. That a similar pattern of smoking is evident in Japan and Korea, two countries with strong cultural affinities to China, is used to buttress the argument.

http://www.springerlink.com/content/n682218328768781/

Cadmium exposure and tobacco consumption: Biomarkers and risk assessment

Regul Toxicol Pharmacol. 2012 Aug 8. [Epub ahead of print]

Marano KM, Naufal ZS, Kathman SJ, Bodnar JA, Borgerding MF, Garner CD, Wilson CL. R.J. Reynolds Tobacco Company, Winston-Salem, NC USA.

Abstract

To investigate whether cadmium has an independent role in diseases associated with tobacco consumption, epidemiology data were reviewed, biomonitoring data were analyzed, and probabilistic risk assessment (PRA) was performed. Results from previous epidemiology studies have indicated that there are adverse health effects potentially in common between cadmium exposure and tobacco consumption. Analysis of publically available biomonitoring data showed that blood (B-Cd) and urine (U-Cd) cadmium were higher in cigarette smokers compared with smokeless tobacco (SLT) consumers, and B-Cd and U-Cd in SLT consumers were not significantly different than in non-consumers of tobacco. Comparison with previously established biomonitoring equivalent (BE) values indicated that B-Cd and U-Cd in the majority of these cigarette smokers and SLT consumers did not exceed the blood and urine BEs. Results of the PRA showed that the mean hazard estimate was below a generally accepted regulatory threshold for SLT consumers, but not for cigarette smokers. In total, this evaluation indicated that cadmium exposures in tobacco consumption related diseases; if cadmium in tobacco consumption related diseases, differences in hazard and/or risk may exist by product category.

Conflict of interest statement

The authors declare that there are no conflicts of interest.

http://www.sciencedirect.com/science/article/pii/S0273230012001468

Related Reg Tox Pharm study:

Arsenic exposure and tobacco consumption: Biomarkers and risk assessment <u>http://www.sciencedirect.com/science/article/pii/S0273230012001456</u>

Note: Tobacco industry research.

SimSmokeFinn: How far can tobacco control policies move Finland toward tobacco-free 2040 goals?

Scand J Public Health. 2012 Aug 16. [Epub ahead of print]

Levy DT, Blackman K, Currie LM, Levy J, Clancy L.

Abstract

AIMS:

Finland is the first country to stipulate in law that its aim is to end the use of tobacco products containing compounds that are toxic to humans and that create addiction. This paper describes the development of a simulation model examining the potential effect of tobacco control policies in Finland on smoking prevalence and associated future premature mortality.

METHODS:

The model is developed using the SimSmoke simulation model of tobacco control policy, previously developed for other nations. The model uses population, smoking rates, and tobacco control policy data for Finland. It assesses, individually, and in combination, the effect of seven types of policies: taxes, smoke-free air laws, mass media campaigns, advertising bans, warning labels, cessation treatment, and youth access policies.

RESULTS:

With a comprehensive set of policies, smoking prevalence can be decreased by as much as 15% in the first few years, increasing to 29% by 20 years and 34% by 30 years. By 2040, 1300 deaths can be averted in that year alone with the stronger set of policies. Without effective tobacco control policies, 23,000 additional lives will be lost due to smoking over all years through 2040.

CONCLUSIONS:

The model shows that significant inroads to reducing smoking prevalence and premature mortality can be achieved through tax increases, a high-intensity media campaign complete with programmes to encourage cessation, a comprehensive cessation treatment programme, stronger health warnings, and enforcement of youth access laws. Other policies will be needed to further reduce tobacco use.

http://sjp.sagepub.com/content/early/2012/08/16/1403494812456635.abstract

Trajectories of cigarette smoking in adulthood predict insomnia among women in late mid-life

Sleep Med. 2012 Aug 15. [Epub ahead of print]

Brook DW, Rubenstone E, Zhang C, Brook JS.

Abstract

Objective: To examine the relationship between trajectories of cigarette smoking among a community sample of women (N=498) with insomnia in late mid-life. Methods: Participants were administered structured interviews at four time waves in adulthood, spanning approximately 25years (mean ages=40, 43, 48, and 65years). At each wave, data were collected on participants' cigarette smoking. At the most recent time wave, in late mid-life, participants reported on their insomnia (difficulty falling asleep, staying asleep, early morning wakening, and daytime consequences of these sleep problems). Results: Growth mixture modeling extracted four trajectory groups of cigarette smoking (from mean ages 40-65years): chronic heavy smokers, moderate smokers, late quitters, and non-smokers. Multivariate logistic regression analysis then examined the relationship between participants' probabilities of trajectory group membership and insomnia in late mid-life, with controls for age, educational level, marital status, depressive symptoms, body mass index, and the number of health conditions. Compared with the non-smokers group, members of the chronic heavy smoking trajectory group were more likely to report insomnia at mean age 65 (Adjusted Odds Ratio=2.76; 95% confidence interval=1.10-6.92; p<0.05). Conclusions: Smoking cessation programs and clinicians treating female patients in mid-life should be aware that chronic heavy smoking in adulthood is a significant risk factor for insomnia.

http://www.sleep-journal.com/article/S1389-9457%2812%2900231-6/abstract http://www.sciencedirect.com/science/article/pii/S1389945712002316

Should anti-tobacco media messages be culturally targeted for Indigenous populations? A systematic review and narrative synthesis

Tob Control Published Online First: 22 August 2012

Gillian Sandra Gould, Andy McEwen, Tracey Watters, Alan R Clough, Rick van der Zwan

Abstract

Objective To summarise published empirical research on culturally targeted anti-tobacco media messages for Indigenous or First Nations people and examine the evidence for the effectiveness of targeted and non-targeted campaigns.

Methods Studies were sought describing mass media and new media interventions for tobacco control or smoking cessation in Indigenous or First Nations populations. Studies of any design were included reporting outcomes of mediabased interventions including: cognitions, awareness, recall, intention to quit and quit rates. Then, 2 reviewers independently applied inclusion criteria, which were met by 21 (5.8%) of the studies found. One author extracted data with crosschecking by a second. Both independently assessed papers using Scottish Intercollegiate Guidelines Network (SIGN; quantitative studies) and Daly *et al* (qualitative studies).

Results A total of 21 studies were found (4 level 1 randomised controlled trials (RCTs), 11 level 2 studies and 6 qualitative studies) and combined with narrative synthesis. Eight evaluated anti-tobacco TV or radio campaigns; two assessed US websites; three New Zealand studies examined mobile phone interventions; five evaluated print media; three evaluated a CD-ROM, a video and an edutainment intervention.

Conclusions Although Indigenous people had good recall of generic anti-tobacco messages, culturally targeted messages were preferred. New Zealand Maori may be less responsive to holistic targeted campaigns, despite their additional benefits, compared to generic fear campaigns. Culturally targeted internet or mobile phone messages appear to be as effective in American Indians and Maori as generic messages in the general population. There is little research comparing the effect of culturally targeted versus generic messages with similar message content in Indigenous people.

http://tobaccocontrol.bmj.com/content/early/2012/08/21/tobaccocontrol-2012-050436.abstract

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