In this edition

**Addict Biol - Li**

Volitional reduction of anterior cingulate cortex activity produces decreased cue craving in smoking cessation: a preliminary real-time fMRI study


Li X, Hartwell KJ, Borckardt J, Prisciandaro JJ, Saladin ME, Morgan PS, Johnson KA, Lematty T, Brady KT, George MS.

Abstract

Numerous research groups are now using analysis of blood oxygen level-dependent (BOLD) functional magnetic resonance imaging (fMRI) results and relaying back information about regional activity in their brains to participants in the scanner in 'real time'. In this study, we explored the feasibility of self-regulation of frontal cortical activation using real-time fMRI (rtfMRI) neurofeedback in nicotine-dependent cigarette smokers during exposure to smoking cues. Ten cigarette smokers were shown smoking-related visual cues in a 3 Tesla MRI scanner to induce their nicotine craving. Participants were instructed to modify their craving using rtfMRI feedback with two different approaches. In a 'reduce craving' paradigm, participants were instructed to 'reduce' their craving, and decrease the anterior cingulate cortex (ACC) activity. In a separate 'increase resistance' paradigm, participants were asked to increase their resistance to craving and to increase middle prefrontal cortex (mPFC) activity. We found that participants were able to significantly reduce the BOLD signal in the ACC during the 'reduce craving' task (P = 0.028). There was a significant correlation between decreased ACC activation and reduced craving ratings during the 'reduce craving' session (P = 0.011). In contrast, there was no modulation of the BOLD signal in mPFC during the 'increase resistance' session. These preliminary results suggest that some smokers may be able to use neurofeedback via rtfMRI to voluntarily regulate ACC activation and temporarily reduce smoking cue-induced craving. Further research is needed to determine the optimal parameters of neurofeedback rtfMRI, and whether it might eventually become a therapeutic tool for nicotine dependence.


**AIDS Educ Prev - Villanti**

Smoking, HIV Status, and HIV Risk Behaviors in a Respondent-Driven Sample of Injection Drug Users in Baltimore, Maryland: The BeSure Study

*AIDS Education and Prevention*  
Vol. 24, No. 2, pp. 132-147.
Andrea Villanti, Danielle German, Frangiscos Sifakis, Colin Flynn, David Holtgrave

Abstract

Tobacco use is the largest preventable cause of death in the United States. Associations between cigarette smoking and HIV risk behaviors were examined among 669 injection drug users (IDU) in the 2006 wave of the National HIV Behavioral Surveillance System in Baltimore, Maryland, using respondent-driven sampling. The adjusted prevalence of smoking among IDU was 92.1%, with 32.7% smoking < 1 pack of cigarettes per day (light smoking) and 59.3% smoking ≥ 1 packs per day (heavy smoking). Self-reported HIV prevalence decreased as smoking frequency increased (p = 0.001). In multivariate analysis, heavy smokers were more likely to report painkiller use and binge drinking and less likely to report anal sex or health care use in the past year than light smokers. Results suggest that health care use mediates the relationship between heavy smoking and self-reported HIV. Integrating smoking cessation with HIV prevention services could address unmet health needs in IDU.

http://guilfordjournals.com/doi/abs/10.1521/aeap.2012.24.2.1...

Am J Ind Med - Nandasena

Indoor fine particle (PM$_{2.5}$) pollution exposure due to secondhand smoke in selected public places of Sri Lanka

American Journal of Industrial Medicine
Early View (Online Version of Record published before inclu... Article first published online: 2 APR 2012

Sumal Nandasena, Ananda R. Wickremasinghe, Kiyoung Lee, Nalini Sathiaakumar

Abstract

Background

Secondhand smoke accounts for a considerable proportion of deaths due to tobacco smoke. Although the existing laws ban indoor smoking in public places in Sri Lanka, the level of compliance is unknown.

Methods

Fine particulate matter (PM$_{2.5}$) levels in 20 public places in Colombo, Sri Lanka were measured by a PM monitor (Model AM510 SIDEPAK Personal Aerosol Monitor). Different types of businesses (restaurants, bars, cafés, and entertainment venues) were selected by purposive sampling. Only the places where smoking was permitted were considered.

Results

The average indoor PM$_{2.5}$ ranged from 33 to 299 µg/m$^3$. The average outdoor PM$_{2.5}$ ranged from 18 to 83 µg/m$^3$. The indoor to outdoor PM$_{2.5}$ ratio ranged from 1.05 to 14.93. In all venues, indoor PM$_{2.5}$ levels were higher than the Sri Lankan ambient PM$_{2.5}$ standard of 50 µg/m$^3$. All indoor locations had higher PM$_{2.5}$ levels as compared to their immediate outdoor surroundings.

Conclusion

The study highlights the importance of improving ventilation and enforcing laws to stop smoking in public places.

http://onlinelibrary.wiley.com/doi/10.1002/ajim.22040/abstra...
Research Letter

Mentholated Cigarettes and Cardiovascular and Pulmonary Diseases: A Population-Based Study


Nicholas T. Vozoris

Cigarettes labeled as "mentholated" contain substantially higher levels of menthol than regular cigarettes, to produce a characteristic mint flavor and cooling sensation. Potential noncancer adverse health effects of added menthol to cigarettes are largely unknown. Epidemiologic data on the risks of cardiovascular and pulmonary diseases among smokers of mentholated vs nonmentholated cigarettes are extremely limited.1,2

The purpose of this study was to determine if cardiovascular and pulmonary disease risk was different between mentholated cigarette smokers and nonmentholated cigarette smokers...

Results

A total of 1286 of 5028 respondents (25.6%) usually smoked mentholated cigarettes, and 3742 of 5028 (74.4%) usually smoked nonmentholated cigarettes. After adjusting for sex, age, race, education level, total household income, body mass index, and smoking quantity and duration, mentholated cigarette smokers were found to have significantly increased odds of stroke compared with nonmentholated cigarette smokers (odds ratio [OR], 2.25; 95% CI, 1.33-3.78), and in particular women (OR, 3.28; 95% CI, 1.74-6.19) and non-African American smokers (OR, 3.48; 95% CI, 1.70-7.13) (Table). There were no significant associations between mentholated cigarette smoking and hypertension, myocardial infarction, congestive heart failure, and COPD. After also controlling for health professional diagnosed, self-reported hypertension, diabetes mellitus, and dyslipidemia, the odds of stroke remained significantly increased among all (OR, 2.19; 95% CI, 1.05-4.58), women (OR, 3.54; 95% CI, 1.60-7.84), and non-African American (OR, 3.02; 95% CI, 1.24-7.34) mentholated cigarette smokers vs respective nonmentholated cigarette smokers.

Comment

To my knowledge this is the first study to report that smokers of mentholated cigarettes, and in particular women and non-African Americans, have significantly increased odds of stroke compared with nonmentholated cigarette smokers. Although potential causal links cannot be established and further research is required to confirm the findings, the association between mentholated cigarette smoking and stroke is noteworthy, given that the results are based on large population-level data, with data spanning nearly a decade, and given that the relationship is independent of multiple sociodemographic, smoking behavior, and health status confounders. The mentholated cigarette-stroke association may even be underestimated because this analysis included only current smokers and not former smokers...

These results highlight the need for further review of the last legally allowed tobacco additive in North America, given that mentholated cigarettes may be placing individuals at even greater risk of potentially devastating cerebrovascular disease than regular cigarettes.

http://archinte.ama-assn.org/cgi/content/extract/172/7/590

Behav Pharm - Barrett

The acute effects of nicotine on the subjective and behavioural responses to denicotinized tobacco in dependent smokers

Behavioural Pharmacology:
POST AUTHOR CORRECTIONS, 30 March 2012

Barrett, Sean P.; Darredeau, Christine
Abstract

Both nicotine and various non-nicotine smoking factors are believed to contribute to tobacco addiction but their relative roles remain incompletely understood. This study aimed to help clarify these roles by examining acute interactions between nicotine and denicotinized tobacco (DT). During two randomized blinded sessions, the effects of a quick-release 4 mg nicotine lozenge (NL) versus placebo lozenge (PL) on the subjective and behavioural responses to DT were examined in 27 (14 men) dependent, daily smokers. Participants were administered NL or PL for 30 min before receiving one initial DT cigarette. Participants could then earn additional DT cigarette puffs over the following 60 min. Subjective state was assessed using the Questionnaire of Smoking Urges-Brief and visual analogue scales at baseline, postlozenge and postinitial DT cigarette. Relative to PL, NL was associated with increased alertness as well as with reduced levels of DT self-administration (P<0.01). The administration of a single DT cigarette was followed by a reduction in craving under both lozenge conditions (P<0.001), an effect that was significantly greater in women (P<0.01). Moreover, DT administration was associated with increased ratings of ‘pleasant’, ‘satisfied’, ‘stimulated’ and ‘relaxed’, as well as with decreased ratings of ‘anxious’ (P’s<0.01), independent of lozenge condition. The findings suggest that both nicotine and non-nicotine smoking factors may make important contributions towards the addictive properties of tobacco.

http://journals.lww.com/behaviouralpharm/Abstract/publishahe...

Environ Mol Mutagen - Rundle

Neighborhood socioeconomic status modifies the association between individual smoking status and PAH-DNA adduct levels in prostate tissue


Rundle A, Richards C, Neslund-Dudas C, Tang D, Rybicki BA.

Abstract

Interactions between smoking and neighborhood-level socioeconomic status (SES) as risk factors for higher polycyclic aromatic hydrocarbon (PAH) DNA adduct levels in prostate tissue were investigated. PAH-DNA adducts were measured by immunohistochemistry with staining intensity measured in optical density units by semiquantitative absorbance image analysis in tumor adjacent tissue from 400 prostatectomy specimens from the Henry Ford Health System in Detroit. For each subject, their U.S. Census tract of residence was classified as being of higher or lower SES using the median value of the distribution of the proportion of tract residents with a high-school education. Generalized estimating equation models were used to assess interactions between neighborhood-level SES and smoking status, adjusting for race, age, education level, tumor volume, primary Gleason grade and prostate specific antigen (PSA) at diagnosis. There was a statistical interaction (P = 0.004) between tract-level SES and smoking status. In lower SES tracts smoking status was not associated with adduct staining, but in higher SES tracts adduct staining intensity was 13% (P = 0.01) higher in ever-smokers as compared to never-smokers. Among never-smokers, living in a lower SES tract was associated with a 25% higher mean staining intensity (P < 0.001). Neighborhood SES modifies the association between individual smoking status and PAH-DNA adduct levels in prostate tissue.


Eur J Cancer Prev - Pastorino

Annual or biennial CT screening versus observation in heavy smokers: 5-year results of the MILD trial


Abstract

The efficacy and cost-effectiveness of low-dose spiral computed tomography (LDCT) screening in heavy smokers is currently under evaluation worldwide. Our screening program started with a pilot study on 1035 volunteers in Milan in 2000 and was followed up in 2005 by a randomized trial comparing annual or biennial LDCT with observation, named Multicentric Italian Lung Detection. This included 4099 participants, 1723 randomized to the control group, 1186 to biennial LDCT screening, and 1190 to annual LDCT screening. Follow-up was stopped in November 2011, with 9901 person-years for the pilot study and 17 621 person-years for Multicentric Italian Lung Detection. Forty-nine lung cancers were detected by LDCT (20 in biennial and 29 in the annual arm), of which 17 were identified at baseline examination; 63% were of stage I and 84% were surgically resectable. Stage distribution and resection rates were similar in the two LDCT arms. The cumulative 5-year lung cancer incidence rate was 311/100 000 in the control group, 457 in the biennial, and 620 in the annual LDCT group (P=0.036); lung cancer mortality rates were 109, 109, and 216/100 000 (P=0.21), and total mortality rates were 310, 363, and 558/100 000, respectively (P=0.13). Total mortality in the pilot study was similar to that observed in the annual LDCT arm at 5 years. There was no evidence of a protective effect of annual or biennial LDCT screening. Furthermore, a meta-analysis of the four published randomized trials showed similar overall mortality in the LDCT arms compared with the control arm.

http://journals.lww.com/eurjcancerprev/pages/articleviewer.a...

EJPH - Warren

Effect of policy changes on cigarette sales: the case of Turkey


Warren CW, Erguder T, Lee J, Lea V, Sauer AG, Jones NR, Bilir N.

Abstract

BACKGROUND:

In 1996, Turkey made tobacco control a health priority. The tobacco control effort was extended in July 2009 with the expansion of the smoke-free law to include all enclosed workplaces and public places and, in January 2010, with a 20% increase in the Special Consumption Tax on Tobacco.

METHODS:

Sales data were averaged, by month, for the period January 2005 through June 2009 to establish an 'expected' monthly sales pattern. This was the period when no new tobacco control measures were implemented. The overall monthly average was then calculated for the same period. The expected monthly sales pattern was then graphed against the overall monthly sales average to delineate a seasonal sales pattern that was used to evaluate the divergence of actual monthly sales from the 'expected' pattern.

RESULTS:

A distinct seasonal pattern was found with sales above average from May through August. Comparison of actual cigarette sales to the 'expected' monthly sales pattern following the implementation of the expanded smoke-free law in July resulted in a 5.2% decrease. Cigarettes sales decreased by 13.6% following the January 2010 Special Consumption Tax. Since the implementation of the expanded smoke-free law in July 2009 and the tax increase in January 2010, cigarette sales in Turkey decreased by 10.7%.

CONCLUSION:
The effect of recent Turkish tobacco control policies could contribute to a reduction in the number of premature deaths related to tobacco use. Evidence has shown that periodic tax increases and strong enforcement of all tobacco control policies are essential to further decrease tobacco consumption.

http://eurpub.oxfordjournals.org/content/early/2012/03/31/eu...

Health Aff - Pyenson

An Actuarial Analysis Shows That Offering Lung Cancer Screening As An Insurance Benefit Would Save Lives At Relatively Low Cost

Health Aff April 2012 vol. 31 no. 4 770-779

Bruce S. Pyenson, Marcia S. Sander, Yiding Jiang, Howard Kahn, and James L. Mulshine

Abstract

Lung cancer screening is not established as a public health practice, yet the results of a recent large randomized controlled trial showed that screening with low-dose spiral computed tomography reduces lung cancer mortality. Using actuarial models, this study estimated the costs and benefits of annual lung cancer screening offered as a commercial insurance benefit in the high-risk US population ages 50–64. Assuming current commercial reimbursement rates for treatment, we found that screening would cost about $1 per insured member per month in 2012 dollars. The cost per life-year saved would be below $19,000, an amount that compares favorably with screening for cervical, breast, and colorectal cancers. Our results suggest that commercial insurers should consider lung cancer screening of high-risk individuals to be high-value coverage and provide it as a benefit to people who are at least fifty years old and have a smoking history of thirty pack-years or more. We also believe that payers and patients should demand screening from high-quality, low-cost providers, thus helping set an example of efficient system innovation.

http://content.healthaffairs.org/content/31/4/770.abstract

Health Pol - Arslanhan

An economic analysis of tobacco elimination policies in Turkey

Health Policy, Available online 1 April 2012

Selin Arslanhan, Asena Caner, Kerem Helvacioglu, Ismail Saglam, Tuncay Teksoz

Abstract

Objective

We aim to evaluate the costs and benefits of various tobacco elimination policies, specifically, an immediate taxation option and eight tax-combined long-term cessation programs.

Methods

We combine demographic projections for the period 2012–2050 with incidence and mortality rates of four major cigarette related diseases, price elasticity of cigarette demand and unit costs of nonprice measures to reduce demand in order to estimate the net present discounted values of policy alternatives.

Results
The tax-combined cessation programs yield lower net costs to households and the society when they phase out smoking earlier. However, immediate taxation option is found to be superior, for both households and the society, to all tax-combined cessation programs irrespective of the duration of intervention. While all policies are estimated to yield significant reductions in the expected number of smoking related diseases and deaths, a class-based 20-year intervention is found to be the most effective program.

Conclusions

Although immediate taxation policy and tax-combined class-based 20-year intervention program emerge as the best tobacco elimination policies for the society, more research is needed on assessing the cost-effectiveness, applicability and social desirability of these alternatives and on designing additional policies to overcome their limitations.

HPP - Pederson/Foley

News Media Outreach and Newspaper Coverage of Tobacco Control

*Health Promot Pract.* 2012 Mar 28. [Epub ahead of print]


Abstract

Introduction. Little is known about the impact of media outreach on news media coverage of tobacco control. Methods. Media outreach data were obtained from the Centers for Disease Control and Prevention's Office on Smoking and Health (CDC/OSH) from 2003 to 2006; one to six types of outreach activities for 50 scientific publications were performed during 35 discrete time periods. The authors analyzed quantitatively and qualitatively 205 newspaper articles generated based on the CDC/OSH scientific publications. Results. Media coverage of specific CDC/OSH-related tobacco themes was highest for disparities (100%) and tobacco statistics (98%). More outreach activities increased the likelihood of moderate pickup of the number of themes in newspaper articles (odds ratio = 2.0, 95% confidence interval = 1.5-2.8), but there appeared to be a ceiling effect. Certain types of outreach were more strongly associated with front page and headline coverage. Conclusions. The extent and type of outreach were associated with increased newspaper coverage but the relationship is not necessarily straightforward. Additional research is needed to better understand relationships between scientific findings, outreach, and news media coverage of tobacco.

Also: Integrating Evidence-Based Tobacco Cessation Interventions in Free Medical Clinics: Opportunities and Challenges


Kayser JW, Nault D, Ostiguy G.
Abstract

More than 1 million people in the United States use home oxygen therapy and its demand is growing. However, there are dangers associated with its use, such as burns and home fires, and smoking is the most common cause of these incidents. As a result, home healthcare nurses feel intense emotional distress when caring for patients who smoke while using home oxygen therapy. This distress arises from the nurse’s competing sense of moral duties toward these patients. The purpose of this article is to describe this distress, then to propose a 3-step process of taking concrete actions to resolve the distress.

http://journals.lww.com/homehealthcarenurseonline/pages/defa...

Inflamm Bowel Dis - Nunes

Does smoking influence Crohn’s disease in the biologic era? The Tabacrohn study


Abstract

BACKGROUND:

While most studies have found a negative effect of smoking on Crohn’s disease (CD) phenotype, more recent data have failed to reproduce this association, which might be due to a current wider use of thiopurines and biologic therapy. The TABACROHN study aimed at defining the impact of smoking on CD in the largest published series.

METHODS:

This multicenter cross-sectional study included 1170 CD patients. Patients were classified as nonsmokers, current smokers, or former smokers according to their present smoking status. Clinical data regarding disease characteristics, treatment, and complications were collected.

RESULTS:

Smokers were more frequently under maintenance treatment when compared to nonsmokers. In addition, current smokers presented higher use of biologic drugs compared to nonsmokers. Tobacco exposure and a higher tobacco load were independent predictors of need for maintenance treatment and stenosing phenotype, respectively.

CONCLUSIONS:

In the era of early and widespread use of immunosuppressants and biologics, tobacco exposure is an independent predictor of need for maintenance treatment, specifically biologic therapy. The wider use of biologics and immunosuppressants could account for the existence of no major differences in disease behavior and complications between nonsmokers and current smokers.

http://onlinelibrary.wiley.com/doi/10.1002/ibd.22959/abstrac...

JCEM - Butts
Joint Effects of Smoking and Gene Variants Involved in Sex Steroid Metabolism on Hot Flashes in Late Reproductive-Age Women

J Clin Endocrinol Metab, 2012 Mar 30. [Epub ahead of print]

Butts SF, Freeman EW, Sammel MD, Queen K, Lin H, Rebbeck TR.

Abstract

Background: Although smoking has a known association with hot flashes, the factors distinguishing smokers at greatest risk for menopausal symptoms have not been well delineated. Recent evidence supports a relationship between menopausal symptoms and variants in several genes encoding enzymes that metabolize substrates such as sex steroids, xenobiotics, and catechols. It is currently not known whether the impact of smoking on hot flashes is modified by the presence of such variants. Objective: The objective of the study was to investigate the relationship between smoking and hot flash occurrence as a function of genetic variation in sex steroid-metabolizing enzymes. Methods: A cross-sectional analysis of data from the Penn Ovarian Aging study, an ongoing population-based cohort of late reproductive-aged women, was performed. Smoking behavior was characterized. Single-nucleotide polymorphisms in five genes were investigated: COMT Val158Met (rs4680), CYP1A2*1F (rs762551), CYP1B1*4 (Asn452Ser, rs1800440), CYP1B1*3 (Leu432Val, rs1056836), and CYP3A4*1B (rs2740574). Results: Compared with nonsmokers, European-American COMT Val158Met double-variant carriers who smoked had increased odds of hot flashes [adjusted odds ratio (AOR) 6.15, 95% confidence interval (CI) 1.32-28.78]; European-American COMT Val158Met double-variant carriers who smoked heavily had more frequent moderate or severe hot flashes than nonsmokers (AOR 13.7, 95% CI 1.2-154.9). European-American CYP 1B1*3 double-variant carriers who smoked described more frequent moderate or severe hot flashes than nonsmoking (AOR 20.6, 95% CI 1.64-257.93) and never-smoking (AOR 20.59, 95% CI 1.39-304.68) carriers, respectively. African-American single-variant CYP 1A2 carriers who smoked were more likely to report hot flashes than the nonsmoking carriers (AOR 6.16, 95% CI 1.11-33.91). Conclusion: This is the first report demonstrating the effects of smoking within the strata of gene variants involved in sex steroid metabolism on hot flashes in late reproductive-age women. The identification of individuals with a genetic susceptibility to smoking-related menopausal symptoms could contribute to interventions targeted at reducing reproductive morbidity both in the menopause and across the reproductive life course.

http://jcem.endojournals.org/content/early/2012/03/29/jc.201...

J Epi Glob Health - Bejjani

The social context of tobacco products use among adolescents in Lebanon (MedSPAD-Lebanon)

Journal of Epidemiology and Global Health, Available online 3 April 2012

Naim Bejjani, Charbel El Bcheraoui, Salim M. Adib

Abstract

Background

Current data from the Middle East suggest a rapid increase in the incidence of smoking water-pipes (narguileh in Lebanon) in parallel with cigarettes. The social context in which these two behaviors are initiated and associated has not been studied.

Methods

Data from a standardized questionnaire to measure the prevalence and practices related to cigarettes and narguileh consumption in a representative sample of 1097 children in grade 9 were extracted and analyzed for elements of the social context in which consumption occurs.
Results and discussion

Among surveyed children (mean age 14.6), 3.9% were frequent cigarette smokers (more than nine times ever). Presence of parents and/or siblings who smoke is a key factor for initiation. Narguileh use is a social phenomenon, rarely smoked alone (<4%) with 19% of the surveyed children being frequent narguileh smokers (more than nine times ever). Almost half of these students (42%) have all their friends smoking narguileh.

Conclusions

Further analysis confirmed that narguileh use is now an accepted familial and social phenomenon, with restrictions apparently decreasing. These results necessitate drawing strategies to address this public health concern that is becoming more prevalent in Lebanon and elsewhere in the Middle East.

http://www.sciencedirect.com/science/article/pii/S2210600612...

J Intellect Disabil Res - Kerr

Tobacco and alcohol-related interventions for people with mild/moderate intellectual disabilities: a systematic review of the literature


Kerr S, Lawrence M, Darbyshire C, Middleton AR, Fitzsimmons L.

Abstract

Background The behavioural determinants of health among people with mild/moderate intellectual disabilities (ID) are of increasing concern. With the closure of long-stay institutions, more people with ID are living in the community. As they lead more ordinary and less restricted lives, people with ID may be exposed to social and environmental pressures that encourage them to adopt behaviours that impact negatively on their health. Levels of smoking and alcohol consumption in this client group are of particular concern.

Methods We undertook a mixed method review of the literature, aiming to assess the Feasibility, Appropriateness, Meaningfulness and Effectiveness (FAME) of interventions designed to address the use of tobacco and/or alcohol in people with mild/moderate ID. Key electronic databases were searched (e.g. Medline, Cochrane Register of Controlled Trials, PsycINFO) from 1996 to 2011. The search was developed using appropriate subject headings and key words (e.g. intellectual disability, tobacco use, alcohol drinking, health promotion). On completion of the database searches, inclusion/exclusion criteria, based on an adaptation of the PICO framework (Population, Intervention, Comparison, Outcomes), were applied. Methodological quality was assessed using a seven-point rating scale. Results Database searches identified 501 unique records, of which nine satisfied the inclusion criteria. Four focused on tobacco, three on alcohol and two on both tobacco and alcohol. Located in the UK, the USA and Australia, the studies aimed to increase knowledge levels and/or change behaviour (e.g. to encourage smoking cessation). One was a randomised controlled trial, one a quasi-experiment and the others were before and after studies and/or case studies. Methodological quality was poor or moderate. The combined studies had a sample size of 341, with ages ranging from 14 to 54 years. The interventions were delivered by professionals (e.g. in health, social care, education) during sessions that spanned a period of three weeks to one academic year. The studies highlighted a number of important issues linked to the appropriateness of interventions for this client group (e.g. use of pictures, quizzes, role play, incentives); however, in the majority of cases the interventions appeared to lack a theoretical framework (e.g. behaviour change theory). The appropriateness of the outcome measures for use with this client group was not tested. One study discussed feasibility (teachers delivering lessons on alcohol and tobacco) and only one was informative in terms of effectiveness i.e. increasing knowledge of the health and social dangers of smoking and excessive alcohol consumption.

Conclusions This review is the first to systematically collate evidence on tobacco and alcohol-related interventions for people with ID. While there is currently little evidence to guide practice, the review delivers clear insights for the development of interventions and presents a strong case for more robust research.
methods. In particular there is a need to test the effectiveness of interventions in large-scale, well-designed trials and to ensure that outcome measures are developed/tailored appropriately for this client group.


J Mat Fetal Neonatal Med - Kilic

Environmental Tobacco Smoke Exposure During Intrauterine Period Promotes Granulosa Cell Apoptosis: A prospective, randomized study

Journal of Maternal-Fetal and Neonatal Medicine
Posted online on April 3, 2012.

Sevtap Kilic, Beril Yuksel, Nese Lortlar, Semra Sertyel Bio, Tarik Aksu, Sertac Batioglu

Abstract

Objective: To evaluate the intrauterine effect of cigarette smoke on cell death and DNA damage in follicular cells of fetal ovarian tissue.

Methods: A prospective, randomized study was conducted with 25 female wistar-albino rats. The rats were randomized either to be exposed to cigarette smoke or to room air, initiating from proestrous period and during pregnancy. Newborn female rats were categorized as group1 (n=24) that had been exposed to cigarette smoke during intrauterine life and group2 (n=7) that had been exposed to room air during intrauterine life. Bilateral oofrectomies were performed on the second week of their life. TUNEL (in-situ Terminal Deoxynucleotidyl-Transferase Mediated dUTP-Nick-End Labeling) immunofluorescent staining and immunohistochemical analyses with caspase-3 were used for detection of DNA damage and apoptosis. Primary outcomes were apoptotic index and immunohistochemical scores (HSCORE). Secondary outcomes were ovarian follicle counts and birth weights of newborn rats.

Results: There was a significant increase of HSCORE and apoptotic index in group1. Increased immunofluorescent staining; evaluating DNA damage, with TUNEL method was observed in granulosa cells in group1.

Conclusions: Intrauterine exposure to cigarette smoke diminishes ovarian reserve of female offspring, raising the concern about the generational impact of maternal smoking on ovarian function in the human.

http://informahealthcare.com/doi/abs/10.3109/14767058.2012.6...

Leuk Lymphoma - Morton

Smoking and lymphoma: a small part of a complex story

Leuk Lymphoma. 2012 Mar 30. [Epub ahead of print]

Morton LM.

Although decades of research have shown that tobacco is not a major contributor to hematologic malignancies, today cigarette smoking is recognized as a causal agent of myeloid leukemia [1], and the evidence for Hodgkin lymphoma is suggestive [2]. However, a meta-analysis reported in this issue of the journal [3] joins a body of literature that supports at most a weak effect or possibly none at all of cigarette smoking on risk of non-Hodgkin lymphoma (NHL). Castillo and Dalia [3] combined data from 24 studies of cigarette smoking and NHL risk and report hints of an association, with a statistically significant 40% increase in NHL risk among current female smokers in case-control studies, however not truly
compelling story has emerged. It seems that novel approaches are indeed still needed to understand whether there is, in fact, a story to tell about the association between cigarette smoking and NHL. Although any NHL risk associated with cigarette smoking is likely to be small, further research to pursue the association is warranted because of the potential for providing insight into the complex etiology of NHL which has proven elusive outside of severe immunosuppression, certain infections, and inherited susceptibility, and because the prevalence of smoking remains high worldwide.

From the public health perspective, the contribution of tobacco to hematologic malignancies is dwarfed by its role in millions of deaths worldwide each year from other cancers, heart disease, stroke, pulmonary disease, and a range of other serious conditions [20]. The tobacco-related public health challenges will persist for decades because adverse health effects may occur years after exposure, declines in the prevalence of smoking in many developed countries appear to have slowed or stalled in some countries [21], and smoking rates remain high in many other countries and are increasing among women and in developing countries. Underscoring the magnitude of the problem, recent surveys indicate that almost two-thirds of adult males in East Asia and the Pacific are current smokers [1]. Despite uncertainties regarding the role of cigarette smoking in NHL, the myriad established adverse effects of tobacco and demonstrable benefits of cessation stress the need for clinicians to recommend the most current, effective measures for achieving long-term abstinence among their patients [22].

http://informahealthcare.com/doi/abs/10.3109/10428194.2012.6...

Referenced Leuk Lymphoma study:

Cigarette smoking is associated with a small increase in the incidence of non-Hodgkin lymphoma: A meta-analysis of 24 observational studies

http://informahealthcare.com/doi/abs/10.3109/10428194.2012.6...

Liver Transpl - Bhat

Smoking increases recurrent viral hepatitis after liver transplantation


Abstract

Aims: Smoking is a common behavior among transplant candidates. The aim of this study is to evaluate the effect of smoking on a range of complications after liver transplantation. Methods: Charts of liver transplant recipients were reviewed using the McGill University Health Centre liver transplant database over a 14-year period. Demographic characteristics and postoperative complications were recorded. Chi-square analysis and multivariate analysis were performed using SAS program version 9.2. Results: 444 liver transplants had occurred between 1990 and 2004, of which 63 were repeat transplants. Only those primary liver transplant recipients were included in our analysis. Smokers were more likely to be male (77.9% vs 62.7%, p=0.009) and to be of Caucasian race (88.4% vs 78.0%, p=0.033). The etiology of liver disease was more likely to be alcohol among the smokers and ex-smokers as compared to the non-smokers (29.1% vs 15.9%, p=0.009). Median survival time was 13.23 years for smokers and was not estimable for non-smokers due to censoring. Median recurrent viral hepatitis free survival time was 0.87 years for smokers and 4.10 years for non-smokers (p=0.0331). Patient survival (p=0.7821), time to biliary complications (p=0.6671), time to the first rejection (p=0.6149), and time to depression (p=0.6663) since liver transplant were not found to be associated with smoking status. Multivariate analysis (Cox Proportional Hazard Regression) was conducted and showed that recurrent viral hepatitis-free survival was still strongly associated with smoking (HR 2.04; 95% CI [1.13-3.68]; p=0.018), and marginally associated with East Asian race (HR 0.26; 95% CI [0.06-1.06]; p=0.06, and male gender (HR 0.59; 95% CI [0.34-1.02]; p=0.06). Conclusion: Our study shows that smokers had decreased recurrent hepatitis-free survival after transplantation, which may be explained by the adverse effects of tobacco on immunologic host defenses. Overall survival, biliary complications-, depression-, and rejection-free survival were similar among smokers as compared to non-smokers. These
findings indicate the need to encourage smoking cessation particularly in recipients transplanted for viral hepatitis as the etiology of liver disease.


Lung Cancer - van der Aalst

**Generalisability of the results of the Dutch-Belgian randomised controlled lung cancer CT screening trial (NELSON): Does self-selection play a role?**

*Lung Cancer*. 2012 Mar 27. [Epub ahead of print]

van der Aalst CM, van Iersel CA, van Klaveren RJ, Frenken FJ, Fracheboud J, Otto SJ, de Jong PA, Oudkerk M, de Koning HJ.

**Abstract**

The degree of self-selection in the Dutch-Belgian randomised controlled lung cancer screening trial (NELSON) was determined to assess the generalisability of the study results. 335,441 (mainly) men born in 1928-1953 received a questionnaire. Of the respondents (32%), eligible subjects were invited to participate (19%). Fifty-five percent gave informed consent and was randomised. Background characteristics were compared between male respondents on the first questionnaire (n=92,802), eligible subjects among them (n=18,570) and those randomised (n=10,627) and Statistics Netherlands 2002-2005 (SN) (n=5289) or GLOBE study-data (Dutch cohort) (n=696). Initial respondents were less likely to be highly educated (OR(adj)=0.84; 95% CI: 0.74-0.96) and comprised of significantly less current smokers (OR(adj)=0.65; 95% CI: 0.61-0.69) compared to the general population. These current smokers smoked more heavily (OR(adj)=1.23; 95% CI: 1.10-1.37), but for a shorter time-period (respondents: 31, SN: 42 years, p<0.001). Age, general health, BMI, alcohol use and cancer prevalence were comparable. The randomised population was younger (Age 50-65) (randomised subjects: 85.3%, SN: 72% (p<0.01)) comprised of more heavy current smokers (OR=2.08; 95% CI: 1.75-2.44), that smoked for a shorter period of time (randomised subjects: 37, SN_selection: 42 years (p<0.001)). Both the respondents (32%) of the first questionnaire as well as the randomised population of the NELSON trial appeared to differ slightly on smoking characteristics, but the differences were limited and probably balance each other. Results of the NELSON trial will be roughly applicable to the Dutch and probably other populations that fulfil our selection criteria.

http://www.sciencedirect.com/science/article/pii/S0169500212...

Nurs Stand - Carlisle/Davies

"Would you like to help quit”?


Carlisle D.

**Abstract**

Despite a steep fall in smoking rates, tobacco use is still a major cause of non-communicable diseases, responsible in the U.K. for one in five of all cancers. Globally and in the U.K., poorer people are most at risk. However, NHS cessation services are effective. Nurses should be prepared to ask patients about smoking, and be explicit about the damage it causes.

http://nursingstandard.rcnpublishing.co.uk/archive/browse-by...
Physiol Behav - Tang

Food and drug cues activate similar brain regions: A meta-analysis of functional MRI studies

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Tang DW, Fellows LK, Small DM, Dagher A.

**Abstract**

In healthy individuals, food cues can trigger hunger and feeding behavior. Likewise, smoking cues can trigger craving and relapse in smokers. Brain imaging studies report that structures involved in appetitive behaviors and reward, notably the insula, striatum, amygdala and orbital frontal cortex, tend to be activated by both visual food and smoking cues. Here, by carrying out a meta-analysis of human neuro-imaging studies, we investigate the neural network activated by: 1) food versus neutral cues (14 studies, 142 foci) 2) smoking versus neutral cues (15 studies, 176 foci) 3) smoking versus neutral cues when correlated with craving scores (7 studies, 108 foci). PubMed was used to identify cue-reactivity imaging studies that compared brain response to visual food or smoking cues to neutral cues. Fourteen articles were identified for the food meta-analysis and fifteen articles were identified for the smoking meta-analysis. Six articles were identified for the smoking cue correlated with craving analysis. Meta-analyses were carried out using activation likelihood estimation. Food cues were associated with increased blood oxygen level dependent (BOLD) response in the left amygdala, bilateral insula, bilateral orbital frontal cortex, and striatum. Smoking cues were associated with increased BOLD signal in the same areas, with the exception of the insula. However, the smoking meta-analysis of brain maps correlating cue-reactivity with subjective craving did identify the insula, suggesting that insula activation is only found when craving levels are high. The brain areas identified here are involved in learning, memory and motivation, and their cue-induced activity is an index of the incentive salience of the cues. Using meta-analytic techniques to combine a series of studies, we found that food and smoking cues activate comparable brain networks. There is significant overlap in brain regions responding to conditioned cues associated with natural and drug rewards.

Reg Tox Pharm - Muscat

Menthol smoking in relation to time to first cigarette and cotinine: Results from a community-based study

*Regulatory Toxicology and Pharmacology*  
Available online 2 April 2012

Joshua E. Muscat, Anderson Liu, Steven D. Stellman, John P. Richie Jr.

**Abstract**

Smokers who have their first cigarette shortly after waking, an indicator of nicotine dependence, have substantially higher cotinine levels. There is controversy regarding the role of menthol in nicotine dependence. We hypothesized that menthol smokers have a shorter time to first cigarette (TTFC), and tested whether any statistical association actually reflects increased dependence by measuring nicotine uptake (e.g. cotinine) in the same group of smokers. A cross-sectional community-based study was
conducted that included 495 black and white daily cigarette smokers. Results showed a trend between menthol smoking and a shorter TTFC ($P < 0.04$ in blacks). Menthol was not an independent predictor of cotinine or an effect modifier with TTFC on cotinine levels in blacks and whites. These results show that while menthol in tobacco is associated with an indicator of nicotine dependence in blacks, menthol was not associated with biological uptake of nicotine in black and white smokers.

http://www.sciencedirect.com/science/article/pii/S0273230012...
Reach and effectiveness of mailed nicotine replacement therapy for smokers: 6-month outcomes in a naturalistic exploratory study

Tob Control Published Online First: 11 April 2012

Laurie Zawertailo, Rosa Dragonetti, Susan J Bondy, J Charles Victor, Peter Selby

Abstract

Background There are important inequities in smoker access to clinic-based smoking cessation services. Low barrier high-reach interventions are proposed as solutions to these inequities. Although effective, telephone quitlines, which provide multi-session counselling but no medication, have low utilization with high attrition. The objective of this study was to determine the effectiveness of free nicotine replacement therapy (NRT), brief advice and self-help materials on quit attempts and 6-month quit rates in motivated smokers.

Methods In this open-label naturalistic study, 14 000 treatments of 5 weeks in duration of either nicotine patch (n=10 000) or nicotine gum (n=4000) were made available to all eligible adult smokers in Ontario, Canada, who called a toll-free number to register with the STOP (Smoking Treatment for Ontario Patients) Study and receive a single brief intervention. The primary outcome measure was self-reported abstinence rates at 6 months post-treatment among STOP participants. These data were compared with quit rates that were reported in a concurrent no-intervention cohort of Ontario smokers matched for eligibility.

Results 16 405 callers were assessed and 13143 eligible participants were mailed a treatment package with 5 weeks of NRT (choice of patch or gum), self-help and community resource materials. Among the 6261 participants who consented to follow-up, 2601 (42%) had complete follow-up data. Of those with complete follow-up data, the percentage reporting abstinence after 6 months in the treatment cohort was 21.4%, relative to 11.6% in the no-intervention cohort (rate ratio of 1.84; 95% CI 1.79 to 1.89), with the 30-day point prevalence of 17.8% and 9.8% for the intervention and no-intervention cohorts, respectively (rate ratio 1.81; CI 1.75 to 1.87).

Conclusions Provision of free NRT by mail following a brief telephone intervention is an effective strategy to reach and assist a large number of smokers making a quit attempt.

http://tobaccocontrol.bmj.com/content/early/2012/04/10/tobac...

Also:

Predictors of tobacco outlet density nationwide: a geographic analysis
http://tobaccocontrol.bmj.com/content/early/2012/04/03/tobac...

Stan Shatenstein
Coordinator, GLOBALink NIMI
News & Information Monitoring Initiative
shatensteins@sympatico.ca
GLOBALink NIMI & MJU
http://member.globalink.org/nimi/us

Per la Società Italiana di Tabaccologia
Email Direzione rivista “Tabaccologia” direttore@tabaccologia.it;
Email Presidenza presidenza@tabaccologia.it; ufficioprogetti.sitab@gmail.com