In this edition:

Addiction - Agboola/Dempsey/Hajek/Aubin/Reitzel

A systematic review of the effectiveness of smoking relapse prevention interventions for abstinent smokers

Addiction
Volume 105 Issue 8, Pages 1362 - 1380
Published Online: 9 Jul 2010

Shade Agboola, Ann McNeill, Tim Coleman & Jo Leonardo Bee

Abstract

Aims  To carry out a systematic review of the effectiveness of relapse prevention interventions (RPIs) among abstinent smokers who had completed an initial course of treatment or who had abstained unassisted, pooling only outcome data from similar follow-up time points.

Methods  We used the same search strategy as was used in Cochrane reviews of RPIs to identify randomized trials of behavioural and pharmacological studies of smoking RPIs published up to July 2008. Abstinence from smoking was defined as either continuous abstinence or point prevalence abstinence, measured at three follow-up time points: short term (1–3 months post randomization), medium term (6–9 months) and long term (12–18 months). Abstinence among pregnant/postpartum women was also measured at delivery or the last follow-up prior to delivery. Random effect meta-analysis was used to estimate pooled odds ratios (OR) with 95% confidence intervals (CI).

Results  Thirty-six studies randomizing abstainers were included. Self-help materials appeared to be effective in preventing relapse at long-term follow up in initially unaided quitters (pooled OR 1.52; 95% CI 1.15 to 2.01, I² = 0%, NNT = 11, 3 studies). Other behavioural interventions for relapse prevention appeared effective in the short term only. There were positive results for the use of pharmacotherapies for relapse prevention. Bupropion was effective at long-term follow-up (pooled OR 1.49; 95% CI 1.10 to 2.01; I² = 0%; NNT = 11; 4 studies). Nicotine replacement therapy (NRT) was effective at medium-term (pooled OR 1.56; 95% CI 1.16 to 2.11; I² = 37%; NNT = 14; 4 trials) and long-term follow-ups (pooled OR 1.33; 95% CI 1.08 to 1.63; I² = 0%; NNT = 20; 4 trials). Single trials of extended treatment of Varenicline and rimonabant were also found to be effective at short-term and medium-term follow-ups.

Conclusions  Self-help materials appear to prevent relapse in initially unaided quitters. Use of NRT, bupropion and varenicline appears to be effective in preventing relapse following an initial period of abstinence or an acute treatment episode. There is currently no good evidence that behavioural support prevents relapse after initial unaided abstinence or following an acute treatment period.
Maternal smoking during pregnancy is associated with epigenetic modifications of the brain-derived neurotrophic factor-6 exon in adolescent offspring


Abstract

Prenatal exposure to maternal cigarette smoking (PEMCS) is associated with variations in brain and behavior in adolescence. Epigenetic mechanisms may mediate some of the consequences of PEMCS through methylation of deoxyribonucleic acid (DNA) in genes important for brain development, such as the brain-derived neurotrophic factor (BDNF). In the current study, we used bisulfite sequencing to assess DNA methylation of the BDNF promoter in the blood of adolescents whose mothers smoked during pregnancy. We demonstrate that PEMCS is associated with higher rates of DNA methylation in the BDNF-6 exon. These results suggest that PEMCS may lead to long-term down-regulation of BDNF expression via the increase of DNA methylation in its promoter region. Such mechanisms could, in turn, lead to modifications in both development and plasticity of the brain exposed in utero to maternal cigarette smoking.

The risk of adverse pregnancy outcomes is increased in preeclamptic women who smoke compared with nonpreeclamptic women who do not smoke


Miller EC, Cao H, Wu Wen S, Yang Q, Lafleche J, Walker M.

Abstract

OBJECTIVE: Maternal smoking and preeclampsia independently increase the risk of adverse pregnancy outcomes; however, smoking decreases the risk of preeclampsia. We sought to estimate the risk of adverse pregnancy outcomes among preeclamptic women who smoke and hypothesized that this risk would be increased, compared with nonpreeclamptic women who smoke or preeclamptic women who do not smoke. STUDY DESIGN: With the use of the Niday Perinatal Database and multiple logistic regressions, we estimated the risk of adverse pregnancy outcomes in nonpreeclamptic women who smoke, preeclamptic women who do not smoke, and preeclamptic women who smoke in relation to nonpreeclamptic women who do not smoke. RESULTS: The incidence of adverse pregnancy outcomes was more than twice as high among preeclamptic women who smoke as among nonpreeclamptic women who do not smoke. The following data were observed: small-for-gestational-age infant (odds ratio [OR], 3.40; 95% CI, 2.27-4.89), preterm birth (OR, 5.77; 95% CI, 4.50-7.35), very preterm birth (OR, 5.44; 95% CI, 3.51-8.11), abruption (OR, 6.16; 95% CI, 3.05-11.01), Apgar <4 at 5 minutes (OR, 3.11; 95% CI, 1.48-5.72), and stillbirth (OR, 3.39; 95% CI, 1.33-6.99). CONCLUSION:
Smoking decreases the risk of preeclampsia, but smokers with preeclampsia have an increased risk for adverse pregnancy outcomes.

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

AJPM - Baggett

Cigarette Smoking and Advice to Quit in a National Sample of Homeless Adults

American Journal of Preventive Medicine
Volume 39, Issue 2, August 2010, Pages 164-172
Available online 9 July 2010.

Travis P. Baggett MD, MPH and Nancy A. Rigotti MD

Abstract

Background

Cigarette smoking is common among homeless people, but its characteristics in this vulnerable population have not been studied at a national level. Whether homeless smokers receive advice to quit from healthcare providers is also unknown.

Purpose

To determine the prevalence and predictors of current cigarette smoking, smoking cessation, and receipt of clinician advice to quit in a national sample of homeless adults.

Methods

This study analyzed data from 966 adult respondents to the 2003 Health Care for the Homeless User Survey, representing more than 436,000 people nationally. Using multivariable logistic regression, the independent predictors of smoking, quitting, and receiving advice to quit were identified. Analyses were conducted in 2008–2009.

Results

The prevalence of current smoking was 73%. The lifetime quit rate among ever smokers was 9%. Among past-year smokers, 54% reported receiving clinician advice to quit. Factors independently associated with current smoking included out-of-home placement in childhood (AOR=2.79, 95% CI=1.03, 7.52); victimization while homeless (AOR=2.36, 95% CI=1.15, 4.83); past-year employment (AOR=2.52, 95% CI=1.13, 5.58); and prior illicit drug use (AOR=7.21, 95% CI=3.11, 16.7) or problem alcohol use (AOR=7.42, 95% CI=2.51, 21.9). Respondents with multiple homeless episodes had higher odds of receiving quit advice (AOR=2.51, 95% CI=1.30, 4.83) but lower odds of quitting (AOR=0.47, 95% CI=0.29, 0.78).

Conclusions

Compared to the general population, homeless people are far more likely to smoke and much less likely to quit, even though more than half of smokers received quit advice in the past year. Interventions for homeless smokers should address the unique comorbidities and vulnerabilities of this population.

http://www.sciencedirect.com/science/journal/07493797

Arh Hig Rada Toksikol - Mohammadi/Ljaljevic

Elements of natural radioactive decay series in Iranian drinking water and cigarettes

Mohammadi S.

Abstract

The uranium (238U) decay series provides the most important isotopes of elements radium (226Ra), radon (222Rn), and polonium (210Po) with half-lives of about 1600 years, 3.8 days, and 140 days, respectively. Although the chemical structure of radium is very similar to calcium, the fact that it produces a radioactive gas (radon) complicates its handling in the laboratory and natural environment. In this study, we used the average concentrations of naturally occurring radionuclide 226Ra in drinking water at different parts of Iran to estimate the annual effective dose. In the other part of the study, we measured the concentrations of 210Po in Iranian cigarettes to estimate the internal intake of this radionuclide and its concentration in the lung tissues of smokers. The results indicate that the average concentration of 226Ra in Iranian drinking water was below the 100 mBq L(-1) recommended by the World Health Organization while the average concentration of 210Po and 210Pb in Iranian cigarettes was relatively high in comparison with other cigarettes found on the market.

http://hrcak.srce.hr/file/82347

Also:

Prevalence of smoking and other smoking-related behaviours among students aged 13 to 15 years in Montenegro: results from the Global Youth Tobacco Survey of 2008
http://hrcak.srce.hr/file/82296

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

ANZJPH - Butler/MacLaren

Low daily smoking estimates derived from sales monitored tobacco use in six remote predominantly Aboriginal communities

Australian and New Zealand Journal of Public Health
Volume 34 Issue s1, Pages S71-S75
Published Online: 8 Jul 2010

Rosalind Butler, Simon Chapman, David P. Thomas, Paul Torzillo

Abstract

Objective: To estimate daily cigarette consumption among residents aged 15+ in five remote central Australian predominantly Aboriginal communities.

Methods: Estimation of average daily cigarette consumption derived from a 12-month (2007) complete sales audit of cigarettes in isolated communities where no other tobacco supplies are available, using two assumptions of smoking prevalence (50% and 70%).

Results: Across the five communities, daily smoking consumption averaged 8.3 cigarettes per day (assuming a 50% smoking prevalence) or 5.9 cigarettes per day (assuming a 70% smoking prevalence). The corresponding amounts spent per smoker per day were $4.13 or $2.95, representing 12.7%-9.1% of the maximum $453.30 per fortnight unemployment allowance for a single person.

Conclusion: While smoking prevalence may be high in these Aboriginal communities, smoking frequency is low compared to that in the wider Australian community. These results are consistent with other studies. Approaches to cessation premised on assumptions of nicotine dependence in such populations are likely to be misconceived.

http://www3.interscience.wiley.com/journal/123578506/abstrac...

Also:

Estimating tobacco consumption in remote Aboriginal communities using retail sales data: some challenges and opportunities
http://www3.interscience.wiley.com/journal/123578509/abstrac...
AMJ - Bond

Selling addictions


Laura Bond, Mike Daube, Tanya Chikritzhs

Abstract

Background
The purpose of this research was to identify, through alcohol industry documents, similarities between tobacco and alcohol companies in approaches to evidence and counter-arguments to public health measures.

Method
A search of the tobacco document archives through the World Wide Web for alcohol industry documents was conducted. Alcohol-related search terms were entered into search fields of the tobacco document archives.

Results
The documents show that alcohol and tobacco companies have worked closely together, have shared information, share similar concerns and have used similar arguments to defend their products and prevent or delay restrictions being placed on their products.

Conclusion
This paper provides evidence that alcohol and tobacco companies are similar in a number of ways and there is scope to use these similarities in developing more effective public health approaches to addressing alcohol consumption and related harms.

Also:

Access to Confidential Alcohol Industry Documents: From ‘Big Tobacco’ to ‘Big Booze’ (2009)

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

BMC Pub Health - Moussa

Are time-trends of smoking among pregnant immigrant women in Sweden determined by cultural or socioeconomic factors?


Moussa K, Ostergren PO, Eek F, Kunst AE

Abstract

BACKGROUND: The widening socioeconomic gap in smoking during pregnancy remains a challenge to the Swedish antenatal care services. However, the influence of cultural factors in explaining the socioeconomic differences in smoking during pregnancy is not clear among the immigrant women. The aim of this study was to investigate whether the development of smoking prevalence among pregnant immigrant women in Sweden followed the trajectory which could be expected from the stages of the global smoking epidemic model in the women's countries of origin, or not. METHODS: Delivery data on pregnancies in Sweden from 1982 to 2001 was collected from the Swedish Medical Birth Registry. From a total of 2,224,469 pregnant women during this period, all immigrant pregnant women (n=234,731) were selected to this
study. A logistic regression analysis and attributable fraction were used to investigate the association between smoking during pregnancy and the socioeconomic differences among immigrant women. RESULTS: Overall, the prevalence of smoking among pregnant immigrant women decreased from 30.3% in 1982 to 11.0% in 2001, albeit with remarkable differences between educational levels and country of origin. The greatest decline of absolute prevalence was recorded among low educated women (27.9%) and among other Nordic countries (17.9%). In relative terms, smoking inequalities increased between educational levels regardless of country of origin. The odds ratios for low educational level for women from other Nordic countries increased from 4.9 (95% CI 4.4-5.4) in 1982 to 13.4 (95% CI 11.2-16.2) in 2001, as compared to women with high education in the same group. Further, the total attributable fraction for educational difference increased from 55% in 1982 to 62% in 2001, demonstrating the strong effect of educational attainment. CONCLUSIONS: Our hypothesis that the socioeconomic time trend of smoking based on the stage of the worldwide tobacco epidemic model related to country of origin of the immigrant women was not supported by our analyses. Our findings does not support a call for specific "culture sensitive" antismoking policies or interventions in Sweden or similar countries, but reinforce the existing evidence with a focus on women with a low educational level, regardless of cultural background.

http://www.biomedcentral.com/1471-2458/10/374
http://www.biomedcentral.com/content/pdf/1471-2458-10-374.pdf...

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

CEJPH - Hrubá/Foley

Similarities and differences between smoking and non-smoking ten-year-old children in primary schools


Hrubá D, Zaloudíková I, Matějová H.

Abstract

BACKGROUND: For the majority of smokers, smoking is related to other forms of risk behaviour, especially poorer eating habits. The primary preventive educational programme "No smoking is a norm" focuses on children of younger school age (under 10 yrs), enables comparison and statistical evaluation of whether there are any differences (and which) between ten-year-olds with various smoking experiences, with special attention paid to their exposure to the influence of smokers, and their eating habits. METHODS: Analysis of data gained from a questionnaire compared groups of boys and girls, smokers and non-smokers, and children from families with no smokers, occasional smokers, and frequent smokers. Statistical significance of the differences was tested in the EPI INFO programme by means of the chi2 test. RESULTS: From 1,082 children, almost one quarter (22.9%) have already tried smoking, boys more frequently (25%) than girls (19%) (p < 0.05); and almost 7% smoked repeatedly. The household is the most frequently stated environment for accessing cigarettes in children: 51% of children are given cigarettes by their parents, siblings, grandparents or other relatives, another almost 17% take cigarettes themselves from unprotected stock. From 246 children who have smoked, more than one third were offered cigarettes by their friends, and some (4%) even bought them. Children with smoking experience more often come from smokers' families and more often have smoking siblings and friends who offer them cigarettes. Children claimed to have consumed alcoholic drinks over the past month, repeatedly smoking more often than those with one attempt (aprox. 81% vs 58%) and never smokers (32%). Smokers also more frequently ate salty snacks such as crisps, sausages, and fast foods. The circumstance of whether there are smokers in the child's household or not significantly influenced children's opinions on the smoking of men/boys and women/girls (fewer critics and more admirers in smokers' families), selection of friends, availability of cigarettes, and smoking behaviour of the children. CONCLUSION: The examination of a cohort of ten-year-olds in a semi-longitudinal study confirmed the growing trend of experimenting with smoking. Strong relations to smoking behaviour in families were identified--such that influence a more tolerant approach to parents' smoking, selection of smoking or non-smoking friends, more frequent consumption of alcohol and salty snacks.


Also:

Social will for tobacco control among the Hungarian public health workforce

Child Adol Soc Work J - Weaver
Healthy Living in Two Worlds: Testing a Wellness Curriculum for Urban Native Youth

Weaver HN, Jackson KF.

Abstract

The Healthy Living in Two Worlds project developed a wellness curriculum for urban, Northeastern Native American youth. The curriculum sought to increase physical activity, decrease or prevent recreational tobacco use, and increase healthy eating practices. The program was delivered in a summer day camp format to 16 Native American youth ages 9-13. These youth have considerable exposure to recreational tobacco use in their households and among their peers but they express an intention to resist pressure to use recreational tobacco products. Some of these youth do not eat regular meals, particularly breakfast and lunch. Program participants appear to be physically active and their activity seems to have increased after the program.

http://www.springerlink.com/content/74q77657514215ru/

Clin Child Fam Psychol Rev - Glass

Why does ADHD Confer Risk for Cigarette Smoking? A Review of Psychosocial Mechanisms

Glass K, Flory K.

Abstract

Research has documented that adolescents and young adults with attention-deficit/hyperactivity disorder (ADHD) are at increased risk for cigarette smoking, but less attention has examined why this risk exists. The current paper reviews the literature on different psychosocial mechanisms [self-medication hypothesis, social factors (social modeling, social impairments), cognitive factors (attitudes, coping skills), and psychological variables (ADHD symptom dimensions, comorbidity)] that might explain this increased smoking risk. Results of the review suggest that, while the self-medication hypothesis has some theoretical merit, it has not been adequately examined among adolescents and young adults with ADHD. Further, cognitive and social factors may be important mechanisms that help to explain the association between ADHD and cigarette smoking, but research in these areas is sparse. Finally, a larger body of literature suggests that different psychological aspects of ADHD (e.g., comorbidity, symptom dimensions) are related to smoking. Interpretation of findings of many of these studies was hindered due to significant methodological problems and the lack of a guiding theoretical orientation. Potential theories that might facilitate future work in this area are discussed. Future research should continue to explore these important psychosocial mechanisms as well as gene-environment interactions in examining the link between ADHD and cigarette smoking.

http://www.metapress.com/content/k9608515125810q0/?p=b570ec2...

Eur J Vasc Endovasc Surg - Hoogwegt

Smoking Cessation has no Influence on Quality of Life in Patients with Peripheral Arterial Disease 5 Years Post-vascular Surgery

Hoogwegt MT, Hoeks SE, Pedersen SS, Scholte Op Reimer WJ, van Gestel YR, Verhagen HJ, Poldermans D.

Abstract

OBJECTIVES: Smoking is an important modifiable risk factor in patients with peripheral arterial disease (PAD). We investigated differences in quality of life (QoL) between patients who quit smoking during follow-up and persistent
smokers. DESIGN: Cohort study. METHODS: Data of 711 consecutively enrolled patients undergoing vascular surgery were collected in 11 hospitals in the Netherlands. Smoking status was obtained at baseline and at 3-year follow-up. A 5-year follow-up to measure QoL was performed with the EuroQol-5D (EQ-5D) and Peripheral Arterial questionnaire (PAQ). RESULTS: After adjusting for clinical risk factors, patients who quit smoking within 3 years after vascular surgery, did not report an impaired QoL (EQ-5D: odds ratio (OR) = 0.63, 95% confidence interval (CI) = 0.28-1.43; PAQ: OR = 0.76, 95% CI = 0.35-1.65; visual analogue scale (VAS): OR = 0.88, 95% CI = 0.42-1.84) compared with patients, who continued smoking. Current smokers were significantly more likely to have an impaired QoL (EQ-5D: OR = 1.86, 95% CI = 1.09-3.17; PAQ: OR = 1.63, 95% CI = 1.00-2.65), although no differences in VAS scores were found (OR = 1.17, 95% CI = 0.72-1.90). CONCLUSIONS: There was no effect of smoking cessation on QoL in PAD patients undergoing vascular surgery. Nevertheless, given the link between smoking, complications and mortality in this patient group, smoking cessation should be a primary target in secondary prevention.

http://www.sciencedirect.com/science/journal/10785884

Food Chem Tox - Verma

Trace metal concentration in different Indian tobacco products and related health implications


Verma S, Yadav S, Singh I.

Abstract

Concentrations of seven heavy metals, viz. Cd, Ni, Pb, Cr, Cu, Fe and Zn were determined in 30 samples of various brands of five different tobacco product types easily available in Indian markets. Three product types cigarettes, cigars and biri (tobacco rolled in dry leaf and smoked without filter) are consumed by smoking while chewing tobacco and snuff are consumed by chewing and sniffing, respectively. The metal content showed smoking and non-smoking type, brand and element specific variations. In the non-smoking type, chewing tobacco samples contained more heavy metals compared to snuff samples. Biri showed minimum metal content compared to cigarettes and cigars among the smoking types. This could be due to the metal enrichment during both chemical and physical processing in finished product; biri being the most raw and cheap product. The intra brand variations also indicate the same as the processing technologies are exclusive and different for each brand. The results are nearly comparable to the existing data with limited exceptions. We suggest that the smoke and ash produced could be significant contributor to metal load in the soil, air and water systems in addition to the adverse human health effects via direct tobacco consumption.

http://www.sciencedirect.com/science/journal/02786915

Genes Brain Behav - Saccone

Multiple cholinergic nicotinic receptor genes affect nicotine dependence risk in African and European Americans

Genes Brain Behav. 2010 Jun 22. [Epub ahead of print]


Abstract

Several independent studies show that the chromosome 15q25.1 region, which contains the CHRNA5-CHRNA3-CHRNB4 gene cluster, harbors variants strongly associated with nicotine dependence, other smoking behaviors, lung cancer, and chronic obstructive pulmonary disease. We investigated whether variants in other cholinergic nicotinic receptor subunit (CHRN) genes affect risk for nicotine dependence in a new sample of African-Americans (N = 710). We also analyzed this African-American sample together with a European-American sample (N=2062, 1608 of which have been previously studied), allowing for differing effects in the two populations. Cases are current nicotine-dependent smokers and controls are non-dependent smokers. Variants in or near CHRND-CHRNG, CHRNA7, and CHRNA10 show modest association with nicotine dependence risk in the African-American sample. In addition, CHRNA4, CHRN3-CHRNA6, and CHRN1 show association in at least one population. CHRNG and CHRNA4 harbor SNPs that have
opposite directions of effect in the two populations. In each of the population samples, these loci substantially increase the trait variation explained, although no loci meet Bonferroni-corrected significance in the African-American sample alone. The trait variation explained by three key associated SNPs in CHRNA5-CHRNA3-CHRNB4 is 1.9% in European-Americans and also 1.9% in African-Americans; this increases to 4.5% in EAs and 7.3% in AAs when we add six variants representing associations at other CHRN genes. Multiple nicotinic receptor subunit genes outside of chromosome 15q25 are likely to be important in the biological processes and development of nicotine dependence, and some of these risks may be shared across diverse populations.

http://www3.interscience.wiley.com/journal/123551575/abstract...
BACKGROUND AND STUDY AIMS:: Screening programs for lung cancer may lead to a heightened awareness of the risks of smoking and enhance quitting. The aim of this study was to evaluate whether the participation on a chemoprevention study for premalignant lesions could influence smoking cessation. METHODS:: Two hundred one volunteers, current (n = 188) and former smokers (n = 13) with more than 20 pack years had been screened for the chemoprevention study. One hundred forty-six of the current smokers at time of chemoprevention study screening have been retrospectively interviewed about their smoking behavior >/=1 year after their first contact for the chemoprevention study. Structured questionnaires were used, and interviews were held by telephone. The quitters at the time of these first interviews were contacted again 4 years after the initial interview about their current smoking behavior. RESULTS:: Of the 146 smoking volunteers, 83 were diagnosed with premalignant lesions of the bronchial mucosa and participated in the chemoprevention study, and 63 had no premalignant lesions and were not included in that study. The majority of participants were men: 87 (60%). The mean age of the participants was 52 +/- 9 years, and the mean age at which volunteers started smoking was 15 +/- 3. Mean number of pack years was 47 +/- 27. Ten volunteers in the group without premalignant lesions and 19 in the group with premalignant lesions had quit smoking at time of the first interview. The smoking cessation rate of the total study group was 20%. Univariate logistic regression analysis demonstrated that smoking cessation was only significantly associated with male gender. No significant associations were found between smoking cessation and the finding of premalignant lesions, sex, age, level of addiction, educational level, marital condition, history of cancer/pulmonary diseases, age at start smoking, previous attempts to quit smoking, and motivation to quit smoking. Within the group of subjects who had quit smoking at the time of the first interview, 15 of 29 persons who had stopped smoking at the time of the first interview to participate in the bronchoscopy screening and/or the trial has been of major influence on their decision to stop smoking. CONCLUSIONS:: A smoking cessation rate of 20% has been found among volunteers for a chemopreventive trial investigating smoking-related premalignant lesions after almost 2 years after initial contact has been found. Volunteers experienced screening and trial participation as having influenced their smoking cessation. Smoking cessation was significantly associated with male gender, whereas the finding of premalignant lesions by bronchoscopy was not.

http://ovidsp.tx.ovid.com/sp-2.3.1b/ovidweb.cgi?&S=OEBOF...

N&TR - Lund

The use of snus for quitting smoking compared with medicinal products

Nicotine & Tobacco Research Advance Access published online on July 9, 2010

Karl Erik Lund, Ph.D., Ann McNeill, Ph.D. and Janne Scheffels, Ph.D.

Abstract

Introduction: Given there are few experimental studies comparing the effects of snus and medicinal products for quitting smoking, self-reports from smokers who have used different methods for quitting smoking can be informative.

Methods: Fourteen thousand seven hundred and forty-four Norwegian men aged between 20 and 50 years were selected at random from a national representative web panel and sent a questionnaire by E-mail. Of the 7,170 (48.6%) who responded, there were 1,775 former and 1,808 current smokers. They were asked about the method they used and the outcome of their last attempt to quit smoking.

Results: In a regression model in which education, number of previous attempts to quit smoking, perception of risk, and age were controlled for, the odds ratio (OR) for reporting total abstinence at the time of the survey was significantly higher for those who had used varenicline (OR = 4.95, p < .006) and snus (OR = 2.68, p < .001) compared with those who had used nicotine chewing gum (reference OR = 1). For smokers who reported that they had tried to quit with the help of snus, 62.4% reported that they still used snus at the time of the survey either daily (43.8%) or occasionally (18.6%). The proportion who still used medicinal nicotine products at the time of the survey was 9.5%.

Discussion: Compared with medicinal nicotine products, snus and varenicline increased the probability of quitting smoking completely, but snus seemed to maintain nicotine dependence.

http://ntr.oxfordjournals.org/cgi/content/abstract/ntq105v1
http://ntr.oxfordjournals.org/cgi/reprint/ntq105v1
Residual attraction to smoking and smoker identity following smoking cessation

Nicotine & Tobacco Research Advance Access published online on July 9, 2010

Eleni Vangeli, M.Sc., John Stapleton, M.Sc. and Robert West, Ph.D.

Abstract

Introduction: Anecdotal reports suggest that some long-term ex-smokers retain a residual attraction to smoking and a "smoker identity," although little systematic data on this exist. These are important because they may increase the likelihood of relapse. This study aimed to quantify the extent of these characteristics in relation to length of abstinence.

Methods: A postal questionnaire on residual attraction to smoking, smoker identity, and vulnerability to relapse was sent to 1,390 adults known to have been abstinent for 4 weeks after treatment support with a large stop smoking service in England. Time since the end of treatment varied between 6 weeks and 3 years. Three hundred and fifty-seven ex-smokers responded and were included in the analysis.

Results: The proportion of ex-smokers reporting a residual attraction to smoking, a smoker identity, and a vulnerability to relapse declined with duration of abstinence (all $p < .001$), although even among those having 2 years or more of abstinence, 37.4% (95% CI = 27.9%–47.7%) reported some residual attraction and 16.3% (95% CI = 9.6%–25.2%) retained a smoker identity. By contrast, after 2 or more years of abstinence, only 7% thought they would ever return to smoking (95% CI = 2.9%–14.2%).

Discussion: The findings suggest that residual attraction to cigarettes is common among long-term ex-smokers, and a significant minority retain a smoker identity. Further studies are needed to determine how far these characteristics are associated with late relapse.

http://ntr.oxfordjournals.org/cgi/content/abstract/ntq104

Also:

Use and acquisition of nicotine replacement therapy products among underaged adolescents after deregulation of the sales
http://ntr.oxfordjournals.org/cgi/content/abstract/ntq110

Oncogene - Improgo

From smoking to lung cancer: the CHRNA5/A3/B4 connection

Oncogene. 2010 Jun 28. [Epub ahead of print]

Improgo MR, Scofield MD, Tapper AR, Gardner PD.

Abstract

Nicotinic acetylcholine receptors (nAChRs) are ligand-gated ion channels that modulate key physiological processes ranging from neurotransmission to cancer signaling. These receptors are activated by the neurotransmitter, acetylcholine, and the tobacco alkaloid, nicotine. Recently, the gene cluster encoding the alpha3, alpha5 and beta4 nAChR subunits received heightened interest after a succession of linkage analyses and association studies identified multiple single-nucleotide polymorphisms in these genes that are associated with an increased risk for nicotine dependence and lung cancer. It is not clear whether the risk for lung cancer is direct or an effect of nicotine dependence, as evidence for both scenarios exist. In this study, we summarize the body of work implicating nAChRs in the pathogenesis of lung cancer, with special focus on the clustered nAChR subunits and their emerging role in this disease state.
Psychol Med - Gizer

Linkage scan of nicotine dependence in the University of California, San Francisco (UCSF) Family Alcoholism Study

Psychol Med. 2010 Jul 1:1-10. [Epub ahead of print]

Gizer IR, Ehlers CL, Vieten C, Seaton-Smith KL, Feiler HS, Lee JV, Segall SK, Gilder DA, Wilhelmsen KC.

Abstract

BACKGROUND: Nicotine dependence has been shown to represent a heritable condition, and several research groups have performed linkage analysis to identify genomic regions influencing this disorder though only a limited number of the findings have been replicated. Method: In the present study, a genome-wide linkage scan for nicotine dependence was conducted in a community sample of 950 probands and 1204 relatives recruited through the University of California, San Francisco (UCSF) Family Alcoholism Study. A modified version of the Semi-Structured Assessment for the Genetics of Alcoholism (SSAGA) with additional questions that probe nicotine use was used to derive DSM-IV nicotine dependence diagnoses. RESULTS: A locus on chromosome 2q31.1 at 184 centiMorgans nearest to marker D2S2188 yielded a logarithm (base 10) of odds (LOD) score of 3.54 (point-wise empirical p=0.000012). Additional peaks of interest were identified on chromosomes 2q13, 4p15.33-31, 11q25 and 12p11.23-21. Follow-up analyses were conducted examining the contributions of individual nicotine dependence symptoms to the chromosome 2q31.1 linkage peak as well as examining the relationship of this chromosomal region to alcohol dependence. CONCLUSIONS: The present report suggests that chromosome 2q31.1 confers risk to the development of nicotine dependence and that this region influences a broad range of nicotine dependence symptoms rather than a specific facet of the disorder. Further, the results show that this region is not linked to alcohol dependence in this population, and thus may influence nicotine dependence specifically.

Psychopharm - Hitsman

Measuring smoking-related preoccupation and compulsive drive: evaluation of the obsessive compulsive smoking scale


Abstract

RATIONALE: Tobacco use for many people is compulsive in nature. Compelling theories of how smoking becomes compulsive exist but are largely based on extrapolation from neuroscience findings. Research on smokers is impeded, in part, by a lack of instruments that specifically measure compulsive smoking. OBJECTIVE: This study evaluated the measurement structure and validity of the Obsessive Compulsive Smoking Scale (OCSS), a ten-item questionnaire designed to measure compulsive smoking. METHODS: Participants were 239 daily smokers (>/=1 cigarette/day), including 142 students at a public university in Chicago and 97 veterans treated at the VA Boston Healthcare System. The OCSS and questionnaires measuring current and past smoking, cigarette craving, automatic smoking, and nicotine dependence were administered. RESULTS: Factor analysis with maximum likelihood extraction and oblique rotation revealed two correlated underlying factors, interpreted as "Preoccupation with Smoking" and "Compulsive Drive." The measurement structure was consistent across students and veterans, and confirmed in an independent sample of adults (n = 95). Veterans exhibited higher OCSS scores (full scale and subscales) than students. Across groups, higher OCSS scores were positively correlated with smoking intensity, craving, and nicotine dependence. OCSS full-scale and compulsive drive scores, but not smoking preoccupation scores, were inversely correlated with past month smoking reduction and minutes since last cigarette. CONCLUSIONS: The OCSS is a valid and reliable inventory for measuring the...
degree to which daily smokers are preoccupied with smoking and engage in compulsive tobacco use, and may be useful for advancing understanding of core smoking phenotypes or for tailoring cessation therapies.

http://www.metapress.com/content/d22n05n751133p17/?p=f9af94f...

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**Psychopharm - Leeman/Philip**

**Nicotine and food deprivation decrease the ability to resist smoking**

*Psychopharmacology (Berl)*, 2010 Jun 29. [Epub ahead of print]

Leeman RF, O'Malley SS, White MA, McKee SA.

**Abstract**

RATIONALE: Attempts to simultaneously control food intake and smoking may lead to smoking cessation failure. We sought to model this relationship using a human laboratory paradigm of smoking lapse behavior. OBJECTIVES: We examined the combined effect of food and nicotine deprivation, compared to nicotine deprivation alone, on the ability to resist smoking and on subsequent ad libitum smoking. METHODS: In a between-subjects design, daily smokers (N = 30) were all deprived of nicotine for 18 h and were either food-deprived (12 h) or not during a laboratory session. Following exposure to individualized food cues, participants had the option of initiating tobacco self-administration or delaying up to 50 min in exchange for monetary reinforcement. Subsequently, the tobacco self-administration period consisted of 1 h in which participants could choose to smoke or receive monetary reinforcement for cigarettes not smoked. RESULTS: Smokers who had been deprived of food and nicotine smoked their first cigarette sooner and were more likely to smoke at some point during the laboratory session, compared to those who were only nicotine-deprived. Those who were food- and nicotine-deprived smoked slightly more cigarettes than those who were nicotine-deprived only, although this difference was not statistically significant. There were no sex differences in outcomes. Hunger and food craving ratings while trying to resist smoking were greater in the food + nicotine-deprived group. Tobacco craving was predictive of outcome in both conditions. CONCLUSIONS: These findings support the hypothesis that food deprivation can undermine a smoker’s ability to resist smoking.

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Also:

Nicotinic acetylcholine receptors and depression: a review of the preclinical and clinical literature

http://www.metapress.com/content/883270pq1m32420u/?p=5e819f6...

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**Pulm Pharm Ther - Comandini/Lixuan**

**Markers of anti-oxidant response in tobacco smoke exposed subjects: A data-mining review**

*Pulm Pharmacol Ther*, 2010 Jun 1. [Epub ahead of print]


**Abstract**

Tobacco smoke exposure is the cause of exaggerated inflammatory responses and tissue destruction leading to chronic bronchitis and emphysema. A number of studies have used biochemical and immunological technologies to identify biomarkers of severity, risk and pharmacological target of disease. Recently, genomic and proteomic studies have been carried out to explore tobacco smoke-induced lung damage mechanisms. Eight of these studies, including 81 healthy non-smokers, 138 healthy smokers and 24 smokers with COPD, had open platform generated data available online and were reviewed in order to identify markers of smoke-induced damage by analyzing differential gene and protein expression in healthy individuals exposed to tobacco smoke in comparison with chronic obstructive pulmonary disease (COPD) smokers and healthy non-smokers. To this end the Ingenuity Pathways Analysis, a web-based application enables identifying the main biological functions and pathways, was used. The pathway most significantly associated with healthy smokers was the Nrf2-mediated Oxidative Stress Response (p-value < 0.01): out of the 22 genes/proteins
identified in healthy smokers, 19 were up-regulated and three down-regulated, compared to non-smokers. Interestingly, four genes/proteins of the same pathway were differentially regulated in COPD, one up-regulated and three down-regulated, compared to healthy smokers. Moreover, in the comparison between COPD and healthy smokers, our analysis showed that the most relevant pathway was the Mitochondrial Dysfunction (p-value < 0.01) with 12 differentially regulated genes/proteins. This data-mining review supports the notion that Nrf2-regulated anti-oxidant genes play a central role in protection against tobacco smoke toxic effects and may be amenable to use as COPD risk biomarkers. Furthermore, this review suggests that mitochondrial dysfunction may be involved in the development of COPD.

Also:

Baicalin attenuates inflammation by inhibiting NF-κB activation in cigarette smoke induced inflammatory models

http://www.sciencedirect.com/science/journal/10945539

Soc Sci Med - Vallejo-Torres/Yoshihama

The contribution of smoking and obesity to income-related inequalities in health in England

Social Science & Medicine
Article in Press, Accepted Manuscript
Available online 23 June 2010.

Laura Vallejo-Torres and Stephen Morris PhD

Abstract

Reducing avoidable inequalities in health is a priority in many health care systems, including the NHS in Great Britain. Evidence suggests that lifestyle factors may play a role in explaining socioeconomic inequalities in health. In this paper we measure the contribution of smoking and obesity to income-related inequality in health. We use the corrected concentration index to measure inequality across time and areas of England, and decomposition methods to quantify directly the contribution of smoking and obesity to income-related inequality. Instrumental variables regression is used to test the endogeneity of smoking and obesity. We use data from nine rounds of the Health Survey for England (1998–2006). The results show that there are significant income-related health inequalities in England, that the extent of the inequality varies by area, and that in some areas it has increased over time. Nationally, smoking and obesity make a significant but modest contribution to income-related inequality in health (2.3% and 1.2%, respectively). Despite the reduction in smoking prevalence, the contribution of smoking has slightly increased over time, due to its increasing concentration among the poor and its negative effect on health. While the prevalence of obesity is increasing, it is more equally distributed across society. The prevalence of these problems varies between areas, and so does the contribution they make to income-related inequalities in health.

Also:

Intimate Partner Violence and Initiation of Smoking and Drinking: A Population-Based Study of Women in Yokohama, Japan

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

Subst Use Misuse - Sussman/Tagmat

Forbidden fruit and the prediction of cigarette smoking


Sussman S, Grana R, Pokhrel P, Rohrbach LA, Sun P.

Abstract
The concept of "forbidden fruit" has been popularly associated with adolescent cigarette smoking in the US. However, only a few empirical studies have been conducted to investigate how this construct operates among adolescents. We examined the concurrent and prospective relationships between two related concepts of forbidden fruit and adolescent cigarette smoking behavior and intention. We found some support for forbidden fruit attitudes as concurrent and longitudinal predictors of smoking and intention to smoke. Implications of these findings are discussed.

http://informahealthcare.com/doi/abs/10.3109/108260810036822...

Also:

Predicting the Urge to Smoke in a Population-Based Sample of Adolescent Smokers
http://informahealthcare.com/doi/abs/10.3109/108260810037540...

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