

Trainee Datablitz

Flavored e-cigarette use and cigarette smoking susceptibility among youth

Chen, JC, Das, B, Mead, EL, Borzekowski, DL

Tobacco Regulatory Science (2017), 3(1), 68-80

doi: 10.18001/TRS.3.1.7

Objectives: Youth e-cigarette use may increase the risk of initiating conventional cigarettes, but the specific effects of flavored e-cigarettes—which greatly appeal to youth—are unknown. This study examined the association between flavored e-cigarette use and cigarette smoking susceptibility among youth non-smokers. Methods: Data from the 2014 National Youth Tobacco Survey (N = 18,392) were used to explore the relationship between current e-cigarette use status (nonuse, flavored, or plain e-cigarette use) and smoking susceptibility among non-smokers ages 11- 18. Results: Overall, 2.2% and 2.1% of non-smoking youth reported current use of plain and flavored e-cigarettes. Compared to 30.0% of non-users, 61.1% and 74.1% of plain and flavored e-cigarette users had smoking susceptibility. Flavored (AOR=3.8, $p < .0001$) and plain e-cigarette users (AOR=1.7, $p < .001$) were more likely to be susceptible than non-users (AOR=3.8, $p < .0001$). The magnitude of the relationship between flavored e-cigarette use and smoking susceptibility was significantly higher for females (AOR=6.5, $p < .01$) than males (AOR=2.5, $p < .01$). Conclusions: Flavored e-cigarette use was associated with smoking susceptibility among non-smoking youth. The results do not demonstrate a causal relationship between flavored e-cigarette use and smoking susceptibility, but do suggest the relationship requires further exploration.

First author:

Julia Cen Chen, MPP, CHES

Ph.D. Candidate (ABD)

Department of Behavioral and Community Health

School of Public Health

University of Maryland College Park

jchen8@umd.edu

Secondhand smoke exposure and pediatric healthcare visits and hospitalizations

Merianos AL, Jandarov RA, Mahabee-Gittens EM

American Journal of Preventive Medicine (2017), Epub ahead of print

doi: 10.1016/j.amepre.2017.03.020

Introduction: This study assessed the relationship between secondhand smoke exposure (SHSe) as measured by serum cotinine and healthcare utilization among children. **Methods:** In 2016, the 2009-2012 National Health and Nutrition Examination Survey data were analyzed including 4,985 children aged 3-19 years. Associations between SHSe and having a routine place for healthcare, type of place, and hospital utilization were examined using logistic regression models. Poisson regression analyses assessed the relationship between SHSe and number of hospital admissions. Relationships between SHSe and acute care visits and hospital utilization were examined among asthmatic children. **Results:** SHSe level did not differ by having a routine place for healthcare, although children with high SHSe indicative of active smoking (cotinine ≥ 3 ng/mL) were 3.49 times (95% CI=1.77, 6.89) more likely to use an emergency department. Children with high SHSe were 2.85 times (95% CI=1.87, 4.34) more likely to have had an overnight hospital stay. Children with high SHSe had 2.05 times (95% CI=1.46, 2.87) the risk of having a higher number of hospital admissions for overnight stays versus children with no SHSe (cotinine < 0.05 ng/mL). Among asthmatic children, those with high SHSe and low SHSe (cotinine 0.05-2.99 ng/mL) were more likely to have an acute care visit, overnight hospital stay, and higher number of hospital admissions than asthmatic children with no SHSe. **Conclusions:** High SHSe is associated with increased healthcare utilization. The emergency department and inpatient settings are important venues in which to routinely offer cessation and SHSe reduction interventions.

First author:

Ashley Merianos, PhD, CHES
Assistant Professor
Health Promotion and Education
School of Human Services
University of Cincinnati
merianal@ucmail.uc.edu

Effects of financial incentives for smoking cessation on mood and anxiety symptoms among pregnant and newly postpartum women

Zvorsky I, Skelly JM, Higgins ST

Nicotine & Tobacco Research (2017), Epub ahead of print

doi: 10.1093/ntr/ntx111

Introduction: Financial incentives for smoking cessation increase smoking abstinence and decrease Beck Depression Inventory (BDI) scores among depression-prone pregnant and postpartum women. The present study is a secondary analysis using the Brief Symptom Inventory (BSI) to examine whether this treatment impacts a broader array of mood and anxiety symptoms. **Methods:** Participants (N = 253) were pregnant cigarette smokers who participated in four controlled clinical trials examining the efficacy of financial incentives for smoking cessation. Women were assigned to an intervention wherein they earned vouchers exchangeable for retail items contingent on smoking abstinence (Contingent, n=143) or a control condition wherein they received comparable vouchers independent of smoking status (Noncontingent, n=110). Participants were categorized as depression-prone (n=105) or depression-negative (n=148) based on self-reported history of depression and BDI scores at intake. A prior study demonstrated that financial incentives decreased depressive symptoms among depression-prone women in this sample. The present study examined whether those effects extended to a broader array of mood and anxiety symptoms using the BSI. Effects of treatment, time, and depression status were examined using repeated measures analyses of covariance. **Results:** In addition to depressive symptoms, financial incentives reduced a multitude of BSI scores among depression-prone women, including the BSI global measure of distress and seven symptom subscales. Treatment effects were discernible by late pregnancy, peaked at 8-weeks postpartum, and dissipated by 24-weeks postpartum. **Discussion:** In addition to reducing smoking, this financial incentives treatment appears to reduce a range of mood and anxiety symptoms among depression-prone pregnant and postpartum women.

First author:

Ivori Zvorsky

Predoctoral Trainee

Vermont Center on Behavior and Health

College of Medicine

University of Vermont

izvorsky@uvm.edu

Pain-related anxiety as a predictor of early lapse and relapse to cigarette smoking

LaRowe LR, Langdon KJ, Zvolensky MJ, Zale EL, W. Ditre JW

Experimental and Clinical Psychopharmacology (2017), Epub ahead of print

doi: 10.1037/pha0000127

Although emerging research suggests that pain-related anxiety may play a role in the maintenance of tobacco dependence, no previous work has examined pain-related anxiety as a predictor of smoking cessation outcomes. The current study aimed to test the hypothesis that pain-related anxiety would predict early lapse and relapse to cigarette smoking. These data were collected in the context of a primary study examining the role of emotional vulnerabilities in smoking cessation. The current analyses were conducted among 55 daily cigarette smokers who attempted to quit without psychosocial or pharmacological cessation aids. Pain-related anxiety was assessed at baseline using the Pain Anxiety Symptom Scale-20 (PASS-20). Early lapse and relapse were assessed using timeline follow-back procedures. Cox regression analyses indicated that pain-related anxiety was a significant predictor of both early smoking lapse and relapse such that for every 1-point increase on the PASS-20, the risk of early lapse increased by 3.7% and the risk of early relapse increased by 3.6%. These effects were evident above and beyond the variance accounted for by tobacco dependence, past 4-week pain severity, anxiety sensitivity, and the presence of current Axis I psychopathology. Kaplan-Meier survival analyses further revealed that among early lapsers, greater pain-related anxiety predicted a more rapid trajectory to lapse. Pain-related anxiety was also a significant predictor of early lapse when the sample was limited to smokers with past 4-week pain. These findings lend empirical support to the notion that pain-related anxiety may contribute to the maintenance of tobacco dependence among smokers who experience varying levels of pain intensity.

First author:

Lisa R. LaRowe, M.S.

Clinical Graduate Student

Department of Psychology

Syracuse University

lrlarowe@syr.edu

Does adding information on toxic constituents to cigarette pack warnings increase smokers' perceptions about the health risks of smoking? A longitudinal study in Australia, Canada, Mexico, and the United States

Cho YJ, Thrasher JF, Swayampakala K, Lipkus I, Hammond D, Cummings KM, Borland R, Yong HH, Hardin JW

Health Education & Behavior (2017), Epub ahead of print

doi: 0.1177/1090198117709884

Background: Health warning labels (HWLs) on cigarette packs in Australia, Canada, Mexico, and the United States include varying information about toxic cigarette smoke constituents and smoking-related health risks. HWL information changed more recently in Australia, Canada, and Mexico than in the United States. **Aims:** To investigate whether smokers' knowledge of toxic constituents and perceived smoking-related risks increased after adding this information to HWLs and how knowledge of toxic constituents is associated with perceptions of smoking-related risks. **Methods:** Data come from a longitudinal, online cohort of 4,621 adult smokers surveyed every 4 months from September 2012 (Wave 1) to January 2014 (Wave 5) in Australia, Canada, and Mexico, with the United States being surveyed from Waves 2 to 5. Generalized estimating equation models estimated the association between perceived smoking-related risk at follow-up and prior wave knowledge of toxic constituents, adjusting for attention to HWLs, sociodemographics, and smoking-related characteristics. **Results:** Between 2012 and 2014, knowledge of toxic constituents increased in Australia, Canada, and Mexico ($p < .001$), but not in the United States. Higher levels of both attention to HWLs and knowledge of toxic constituents were associated with a higher perceived risk of smoking-related conditions at follow-up across all countries except for the United States. **Conclusions:** Our results suggest that information about toxic constituents on prominent HWLs not only increases smoker's knowledge of toxic constituents, but that it may also reinforce the effects of HWL messages about specific, smoking-related health outcomes.

First Author:

Yoo Jin Cho, MPH

Graduate Student

Department of Health Promotion, Education, and Behavior

Arnold School of Public Health

University of South Carolina

ycho@email.sc.edu