

James & Esther King Biomedical Research Program

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New Investigator (3-year project)

Project Title: Anxiety-Based Smoking Treatment

Project Summary: Smokers with anxiety vulnerabilities represent a common, but understudied, segment of the smoking population who are at heightened risk for continued nicotine dependence and its associated morbidity and mortality. Although researchers have attempted to understand the utility of integrating cognitive-behavioral treatment of depression into standard cessation protocols, very little research has directly targeted anxiety vulnerability factors in smoking cessation. This grant aims to fill this gap in the existing literature by developing a novel, cognitive-behavioral approach to smoking cessation treatment for smokers with elevated levels of anxiety sensitivity, a well-established cognitive risk factor for panic attacks and anxiety disorders, that utilizes cognitive restructuring and interoceptive exposure strategies with a focus on reducing the fear of anxiety and related anxiety processes in order to facilitate successful cessation. In the first phase of the project, we will develop a specialized protocol for the treatment of nicotine dependence for smokers with elevated levels of anxiety sensitivity. This Anxiety-based Smoking Treatment (AST) will integrate interoceptive exposure, cognitive restructuring, and psychoeducation exercises developed for anxiety prevention and treatment programs with standard smoking cessation strategies and nicotine replacement therapy. We also will develop clinician and participant manuals. Initially, a small sample of smokers with elevated levels of anxiety sensitivity will complete the protocol, which will be modified and refined based upon feedback from participants and clinicians. In the second phase, 60 smokers with elevated levels of anxiety sensitivity will be assigned to either: (1) standard smoking cessation treatment and nicotine replacement therapy (ST) or (2) AST, which integrates ST plus cognitive-behavioral exercises aimed at reducing anxiety-related symptoms. Based on the outcome of this preliminary trial, the AST protocol will be further refined for larger-scale clinical trial evaluation to be submitted to NIH. Consistent with the recommendations of the National Advisory Mental Health Council Behavioral Science Workgroup (2000), the results of this project will significantly increase our knowledge about the role of anxiety-related vulnerability processes in relapse to smoking. By employing cognitive and behavioral strategies to reduce anxiety-related vulnerability, it may be possible to promote effective smoking cessation among an at-risk group of smokers with elevated levels of anxiety sensitivity. Currently, there is no smoking cessation intervention that has been developed for this high-risk group. This research grant also will contribute much needed knowledge about the relationship between anxiety vulnerability processes and smoking cessation outcomes more generally. Consistent with the goals of the James and Esther King Biomedical Research Program, this project will have important clinical and public health significance in reducing relapse in at-risk individuals and thereby decreasing the overall prevalence of cigarette smoking and preventing tobacco-related diseases.