

Abstract: Engineering Effective Interventions for Tobacco Use
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The overarching goals of our parent center grant are to: a) develop and test interventions that promote smoking reduction and cessation in primary care patients, and b) identify motivational and behavioral factors that affect cessation success (e.g., withdrawal severity). However, we have discovered that our parent grant research may be significantly affected by an unmeasured factor: smokers' dual use of cigarettes and alternative tobacco products (ATP's: nonmedicinal, noncigarette, tobacco products). We propose two studies to determine and elucidate the relations of dual use with outcomes important to public health. In the Primary Care study we will add new measures and analyses to the parent study to assess the relation of dual use to dependence on cigarettes, withdrawal severity, perception of harm, treatment engagement, and smoking outcomes (smoking reduction and cessation). In the Community Sample study we will use measures and analyses that will elucidate the mechanisms responsible for the associations observed in the Primary Care study. The Community Sample study will recruit 150 daily smokers. 50 will smoke cigarettes exclusively. 100 will be dual users (50 will both smoke cigarettes and use smokeless tobacco and 50 will both smoke cigarettes and use e-cigarettes). These participants will use ecologic momentary assessment to generate real time data during periods of ad libitum tobacco use and during periods of reduced smoking and abstinence, to determine how dual users and exclusive smokers compare on hedonic ratings of cigarettes, cigarette use, diurnal pattern of tobacco product use, mood, suppression of cigarette withdrawal, contexts of use, and exposure biomarkers. Moreover, data from dual users will reveal how recency of ATP use affects cigarette use and evaluations (e.g., reward) and how the two products (cigarettes and ATP's) compare on hedonic impact, use patterns, and use contexts. This information could be used to evaluate the risk profile for ATP's and dual use, improve cessation treatments, and elucidate results of the parent study. Understanding dual use and its impact on smokers' treatment engagement, cessation attempts, and cessation success is vital to developing optimal treatments for smokers in primary care and reduce overall tobacco use.