EFFICACY OF ELECTRONIC NICOTINE DELIVERY SYSTEMS (ENDS) FOR SMOKING CESSATION IN POPULATIONS WITH PSYCHIATRIC AND SUBSTANCE USE PROBLEMS: SECONDARY ANALYSIS OF A RANDOMIZED CONTROLLED TRIAL

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Background:
People with psychiatric and substance disorders are more likely to smoke, less likely to quit smoking than the general population, and more likely to have tobacco-induced health problems. Electronic nicotine delivery systems (ENDS or e-cigarettes) can help smokers to quit, but have not been assessed in this population.

Methods:
We conducted a secondary analysis of data collected in the "Efficacy, Safety, and Toxicology of ENDS as an Aid for Smoking Cessation" (ESTxENDS) trial, an open-label, two-arm, 1:1 parallel group, randomized controlled trial conducted in Switzerland. The study recruited adult smokers willing to quit from the general population. For 6 months, the intervention group received ENDS and e-liquids, plus standard-of-care smoking cessation counseling (SOC). The control group received only SOC. The primary outcome was sustained self-reported abstinence from cigarette smoking at 6 months, biochemically validated by anabasine and if missing by CO (carbon monoxide). We calculated relative risks for two subgroups with psychiatric problems, defined as having the following conditions at baseline visit: 1) psychotropic medication use (benzodiazepines, antidepressants, hypnotics, or sedatives) and 2) problematic substance or polysubstance use (problematic alcohol use, problematic cannabis use, or use of at least two illicit substances during the 6 months before the baseline visit).

Results:
We randomized 1243 participants; among participants using psychotropic medications (n=384), validated abstinence rates were 33.2% in the intervention group and 15.6% in the control group (relative risk: 2.20, 95% confidence interval: 11.11; 4.34). Among participants with problematic substance or polysubstance use (n=812), abstinence rates were 35.4% in the intervention group and 24.5% in the control group (relative risk: 1.67, 95% confidence interval: 1.27; 2.20).

Conclusion:
ENDS plus SOC were more effective than SOC alone for smoking cessation, meaning that ENDS may help patients with psychiatric or substance-related problems to quit smoking.

Disclosure of Interest Statement:
Trial Registration: ClinicalTrials NCT03589989.
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