Factors associated with single, dual and poly combustible tobacco use among Emirati adults in the United Arab Emirates: The UAE Healthy Future and ITC Survey results (2016 – 2023)

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Abstract

Introduction

Forms of combustible tobacco, such as shisha and pipe tobacco, are popular in the Middle East. Poly use of combustible tobacco products increases exposure to the harmful toxicants in them. Little is known about patterns of tobacco use behaviors in Middle Eastern countries and the potential harms due to particular types and concurrent versus single-use.

Methods

We analyzed data on tobacco use from 7,535 Emirati adults as part of the UAE Healthy Future Study, a longitudinal cohort study in the United Arab Emirates. We examined associations between single, dual, or poly combustible tobacco use and sociodemographic and clinical factors, including markers of cardiovascular disease (CVD). We also examined associations between the type of tobacco used and markers of CVD.

Results

Age-adjusted prevalence of combustible tobacco use was 34%. Single, dual, and poly use were 47%, 35%, and 18%, respectively. Parental tobacco use was associated with any kind of combustible tobacco use, and was strongly associated with poly use (RRRp=4.4, 95% CI=1.2, 16.8). Those who used one or more combustible tobacco products had higher levels of some CVD markers, notably HDL and Apolipoprotein A. Use of any type of tobacco was associated with increased risk for markers of CVD.

Conclusions

Any amount of tobacco used was associated with differences in CVD markers. Associations were strongest for poly tobacco users. Future studies are needed to understand relationships between single, dual and poly combustible tobacco use, different combustible tobacco types, and disease risk.

Implications

All forms of tobacco were associated with markers of CVD, signaling that there is no safer form of combustible tobacco. The study is one of the largest to characterize tobacco use behaviors in a Middle Eastern population, and should provide an important benchmark for further research on different, and sometimes co-occurring, forms of tobacco use.

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