

Heterogeneity in Socio-demographic Characteristics of People Who Use Different ENDS Devices

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Background

The electronic nicotine delivery systems (ENDS) market is highly heterogeneous. People with distinct socio-demographic characteristics may have different ENDS device and liquid preferences.

Methods

- 1,290 U.S. adults (21+) using ENDS 5+ days/week completed the VAPER Study Wave 5 (Feb.-Apr. 2023) survey
- Participants submitted photos of their most-used ENDS device and liquid
- A latent class analysis (LCA) was performed based on socio-demographic characteristics and smoking status to identify classes (based on parsimony and model performance) among participants
- Exploratory factor analysis (EFA) was conducted to identify the underlying relationships between ENDS device (disposable device/disposable pod/refillable pod/tank, power/airflow/ coil modifiability) and liquid (nicotine salt/freebase) characteristics
- Chi-square tests assessed differences between various classes (determined by LCA) in using the device/liquid grouping (determined by EFA)
- Analyses were unweighted but the sociodemographic distribution of the sample closely matched daily users from the 2019 TUS-CPS data

Women who were younger and self-identified as LGBTQ+ were more likely than others to use disposable devices with a nicotine salt liquid.



Learn more about the Vaping and Patterns of E-Cigarette Use Research (VAPER) Study

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Three Classes Identified

- One class (61.6% of the sample) represented women who tended to be older, self-identified as hetero-sexual, and had smoked cigarettes
- The second class (22.7% of the sample) represented men who tended to be higher-income and self-identified as heterosexual
- A third class (15.7% of the sample) represented women who tended to be younger and self-identified as LGBTQ+; they were more likely than the other two classes to use disposable devices with a nicotine salt liquid (54.2% vs 33.6% (class 1) and 32.8% (class 2) $p < 0.001$); and they were less likely to use adjustable tank devices with a freebase liquid (7.9% vs. 21.9% (class 1) and 23.5% (class 2) $p < 0.001$)

Conclusions

- Three distinct classes of adults frequently using ENDS were found
- The class of younger women who self-identified as LGBTQ+ were more likely to use disposable devices with a nicotine salt liquid and less likely to use adjustable tank devices with a freebase liquid compared to the other two classes
- Our findings enhance understanding of who tends to use different kinds of ENDS, which can help inform expected impacts of proposed ENDS regulations as well as interventions for people with specific attributes

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