

ASHES, Vol. 18(5) - Adolescents' and youth adults' perceptions of e-cigarette respiratory health risks

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Youth use of e-cigarettes has increased since modern designs entered the marketplace starting [in 2007](#). More recently, tobacco use has been listed as a [risk factor](#) for COVID-19 complications and other respiratory issues. It is important to assess how youth perceive e-cigarette risk because these perceptions are associated with [future user behavior](#). While some adolescents and young adults may believe e-cigarettes are “safer” than combustible cigarettes and choose to [experiment with e-cigarettes](#), the respiratory harm caused by e-cigarettes may be [equivalent](#) to the harm caused by combustible cigarettes. This week, ASHES reviews a [study by Shivani Gaiha and colleagues](#) that examined relationships between adolescents' and young adults' perceptions of respiratory harm e-cigarette risks and their actual e-cigarette use.

What was the research question?

How do adolescents and young adults view e-cigarette risks for respiratory harm and how are these perceptions related to e-cigarette use?

What did the researchers do?

This cross-sectional survey study involved 4,315 adolescents and young adults (ages 13 to 24) in the United States recruited through Qualtrics' online panels. The researchers looked at participant demographics, e-cigarette ever-use and past 30-day use, and views about the health harms of e-cigarettes. They tested the association between health risks perceptions and e-cigarette use (ever and past 30 days) using [chi-square](#) analyses. A multivariable [logistic regression](#) examined the relationship between perceptions of health risks of e-cigarette use and the use of an e-cigarette in the past 30 days among ever-users.

What did they find?

Those who used e-cigarettes perceived lower health risks compared to never-users. Health risk perceptions were also lower among participants who used e-cigarettes in the past 30 days compared to participants who have ever used e-cigarettes but not in the past 30 days. Even after controlling for demographics,

beliefs that youth e-cigarette users are at risk for respiratory and other health issues were associated with being less likely to have used an e-cigarette in the past 30 days. On the contrary, beliefs that there is no evidence that tobacco use increases the risk of severe lung disease and that e-cigarettes are safer than cigarettes were associated with an increased likelihood of e-cigarette use in the past 30 days (see Figure).

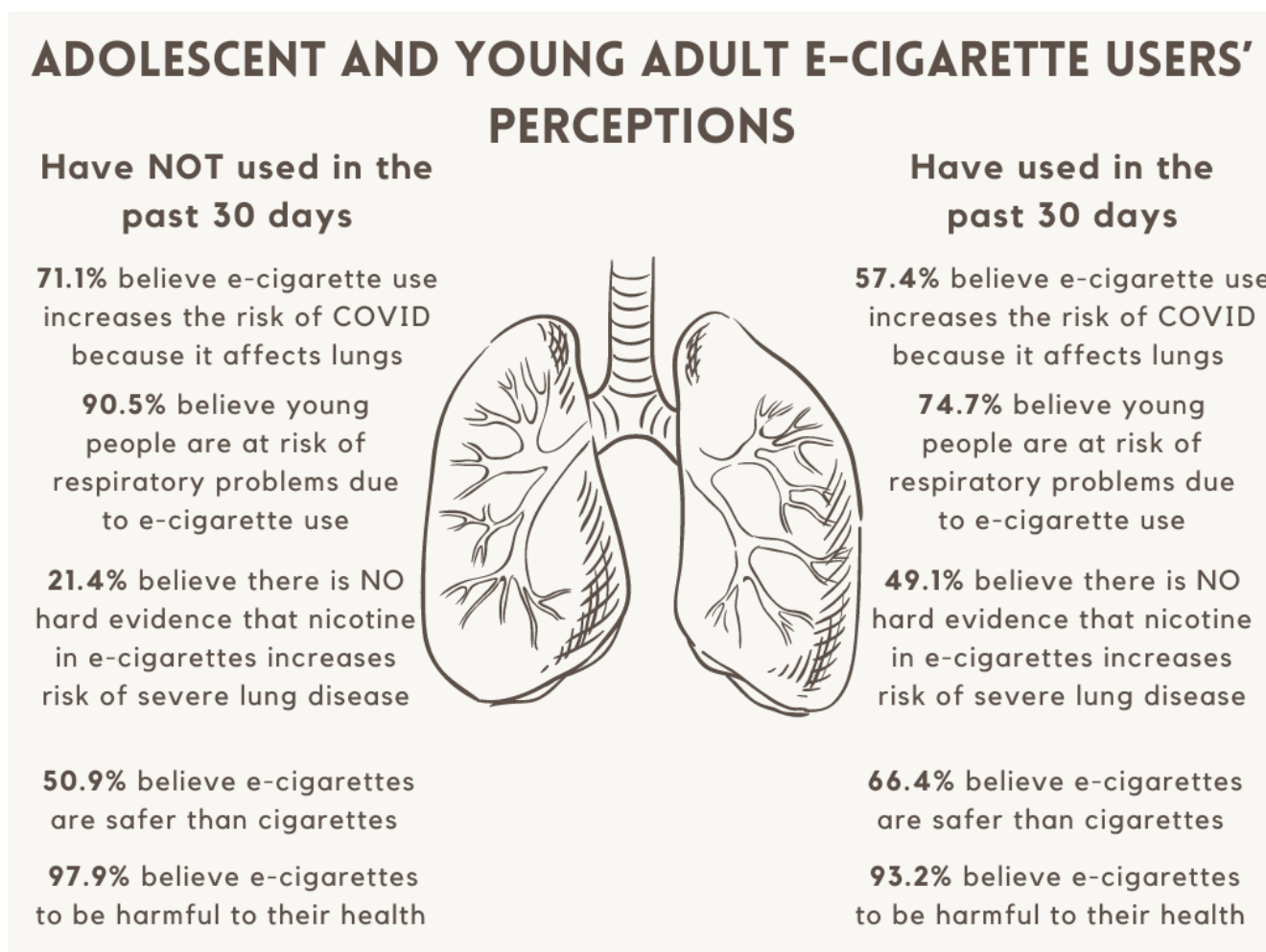


Figure. Perceptions of e-cigarette-related health risks among adolescents and young adults who had ever used e-cigarettes. Click image to enlarge.

Why do these findings matter?

This study begins to examine adolescents' and young adults' perceptions of e-cigarette risk and lays a foundation for future studies to further analyze these relationships. [Longitudinal studies](#) may be necessary to analyze how perceptions have changed since pre-pandemic times and how they affect future e-cigarette use. Additionally, studies looking into the effectiveness of health messages that explicitly mention respiratory consequences or concerns may advance prevention programs or youth information campaigns.

Every study has limitations. What are the limitations of this study?

While this study uses a large national sample of adolescents and young adults, it is a [convenience sample](#) thus limiting [generalizability](#). Furthermore, this study does not examine the influence of perceptions about masks or social gatherings. It is unclear whether these factors may sway COVID-19 concerns. Additionally, [sheltering-in-place orders](#) might mean that adolescents and young adults have spent more time with their parents than in years past, and this might have cut down the unsupervised time often necessary to acquire or use e-cigarettes.

For more information:

[SmokeFree](#) offers tools and tips for quitting and maintaining abstinence from smoking tobacco. The [Talk With Your Teen About e-Cigarettes](#) tip sheet provides tips for parents to explain why e-cigarettes are harmful. [The Centers for Disease Control and Prevention](#) also provides research and tips about cigarettes and how to quit. For more details about addiction, visit our [Addiction Resources](#) page.

— Taylor Lee

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