

The Substance of Perception: Harm Perception of Vaping and Vape Use Among 8th and 10th Graders in the U.S.

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Research Questions

- Is vaping status related to risk perception of vaping among American youth?
- Does cigarette smoking status moderate this relationship?

Significance

- Most vaporizers and e-cigarettes contain nicotine, a known highly addictive substance.
- CDC reported e-cigarette use since 2017 has increased 78% among high school students and 48% among students in middle school (Morgan, 2019).

Background

- In 2014, 16% of 10th graders reported using e-cigarettes in the past 30 days; 43% had never smoked a combustible cigarette (Morgan, 2019).
- Current and former users view harm and addiction potential significantly lower than non-users (Russell et al., 2019).
- Studies revealed teenagers begin vaping because of curiosity/experimentation and are often unaware of the potential harms of vaping. (Patrick et al., 2016).

Hypotheses

- Adolescents who have vaped are more likely than those who have never vaped to view the risks as minimal.
- Associations are greater in adolescents who have smoked cigarettes than those who have never smoked cigarettes.

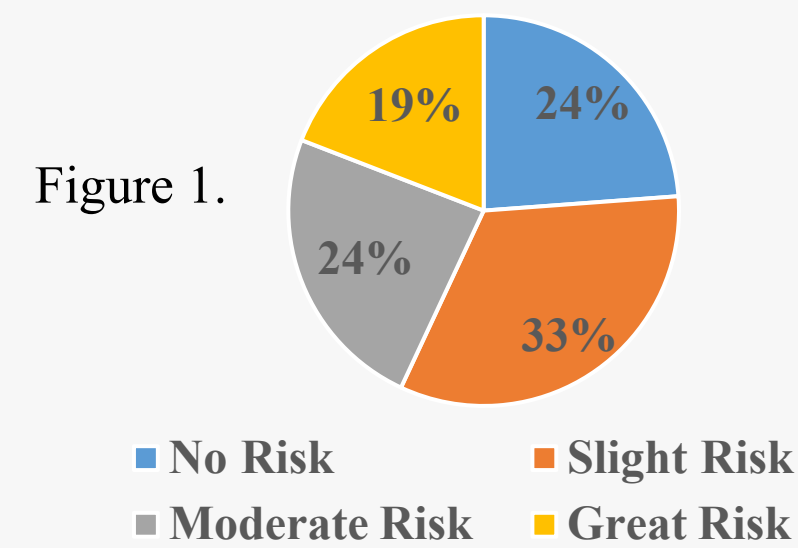
Data and Sample

- Monitoring the Future Survey (N=29,980).
- Nationally representative sample of 8th & 10th graders enrolled in U.S. schools.

Dependent Measure

Perception of Vaping Risk

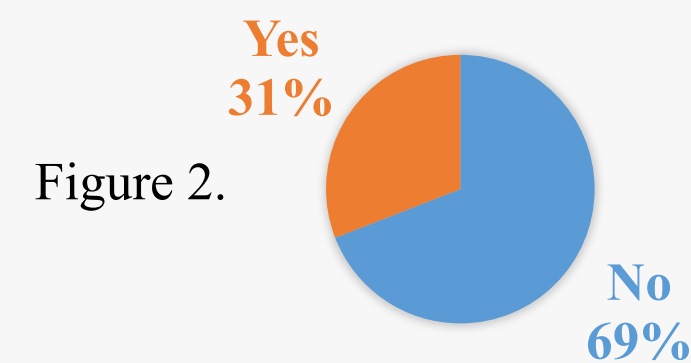
- “How much do you think people risk harming themselves, if they . . . Vape an e-liquid with nicotine occasionally?”



Independent Measure

Vaping Status

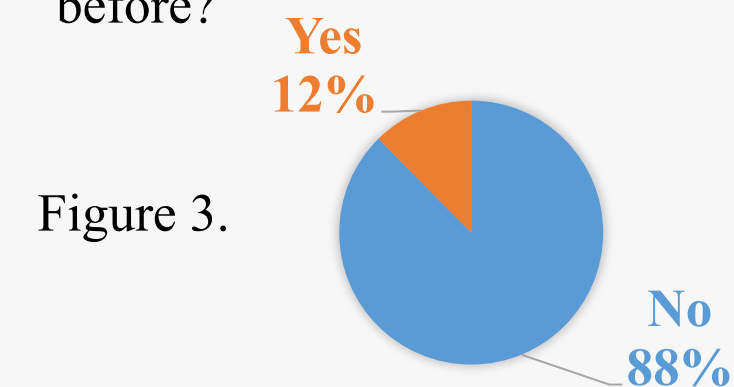
- “Have you ever vaped before?”



Control Measure

Smoking Status

- “Have you ever smoked a cigarette before?”



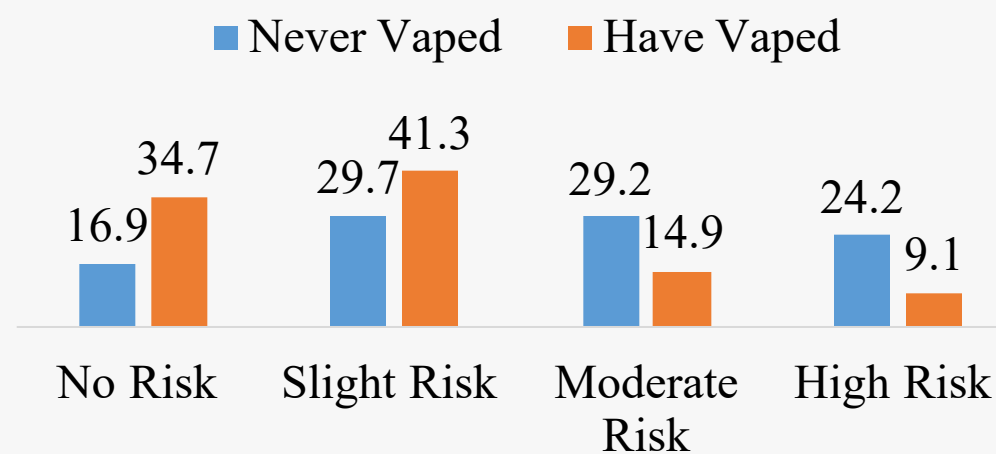
Analysis

- Cross tabulation and Chi-square test using SPSS.

Results

Figure 4.

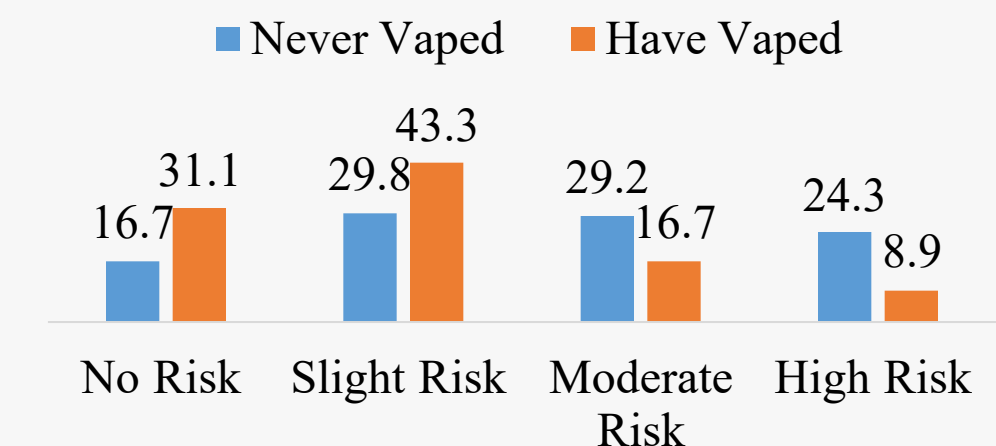
Vaping Risk Perception Among 8th & 10th Grades: All Students



Chi-square test for risk perception is significant at *** $p < .001$.

Figure 5.

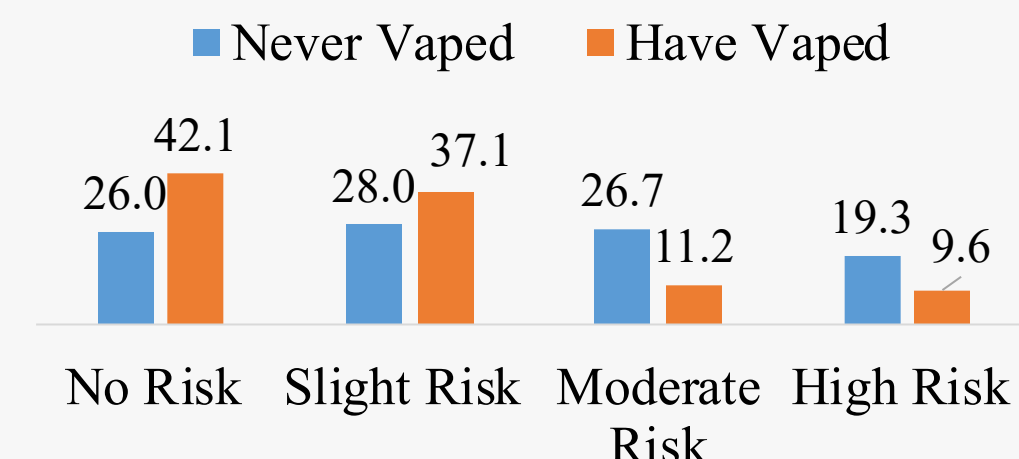
Vaping Risk Perception Among 8th & 10th Grades: Never Smoked



Chi-square test for risk perception is significant at *** $p < .001$.

Figure 6.

Vaping Risk Perception Among 8th & 10th Grades: Have Ever Smoked



Chi-square test for risk perception is significant at *** $p < .001$.

Summary of Findings

- Overall, one-third of 8th and 10th graders view vaping as “slight risk” and about one-fifth view it as “moderate risk.”
- About one-fifth view it as “no risk.”
- Views of vape risks are correlated with vape status: perceived less risk from vaping is more common among students who have vaped than students who have not.
- The association is found whether or not students have ever tried combustible cigarettes.
- Individuals who have smoked cigarettes and vaped are the most likely to view vaping as “no risk.”

Policy Implications

- Need to provide young people with more education and information about the harms that are associated with the specific nicotine use of vaping.
- Education and advertisement to prevent teenage vape use should be more than shaking your vape in a bottle of soda to show how cool it is to quit.
- Have treatment options for adolescents who want to quit, using proven safe methods.

References

- Morgan, A. J. (2019). Are Vape Pens the New Cigarette? The FDA's Impending Quest to Regulate the E-Cigarette and its Effect on Society's Youth. *DePaul Journal of Health Care Law*, 21. Retrieved on April 22 from <https://via.library.depaul.edu/jhcl/vol21/iss2/2>.
- Russell, C., Katsampouris, E., & McKeaganey, N. (2019). Harm and addiction perceptions of the JUUL e-cigarette among adolescents. *Nicotine & Tobacco Research*, 22(5), 713-721.
- Patrick, M., Miech, R., Carlier, C., O'Malley, P., Johnston, L. & Shulenberg, J. (2016). Self-reported reasons for vaping among 8th, 10th, and 12th graders in the US: Nationally-representative results. *Drug and Alcohol Dependence*, 165, 275-278.