

## Introduction

- According to the Centers for Disease Control and Prevention (CDC), approximately 8.1 million Americans used electronic cigarettes in 2018.
- CDC estimated the highest vaping prevalence among young people ages 18 – 24.
- Ongoing COVID-19 increased mental, economic, and social stress can affect future e-cigarette use.
- Since this virus primarily affects the upper respiratory system, its effects can impact future e-cigarette use.
- This study examined the link between COVID-19 and vaping among young adults ages 18 – 24 due to stressors associated with the ongoing pandemic.



## Methodology

### Search Terms

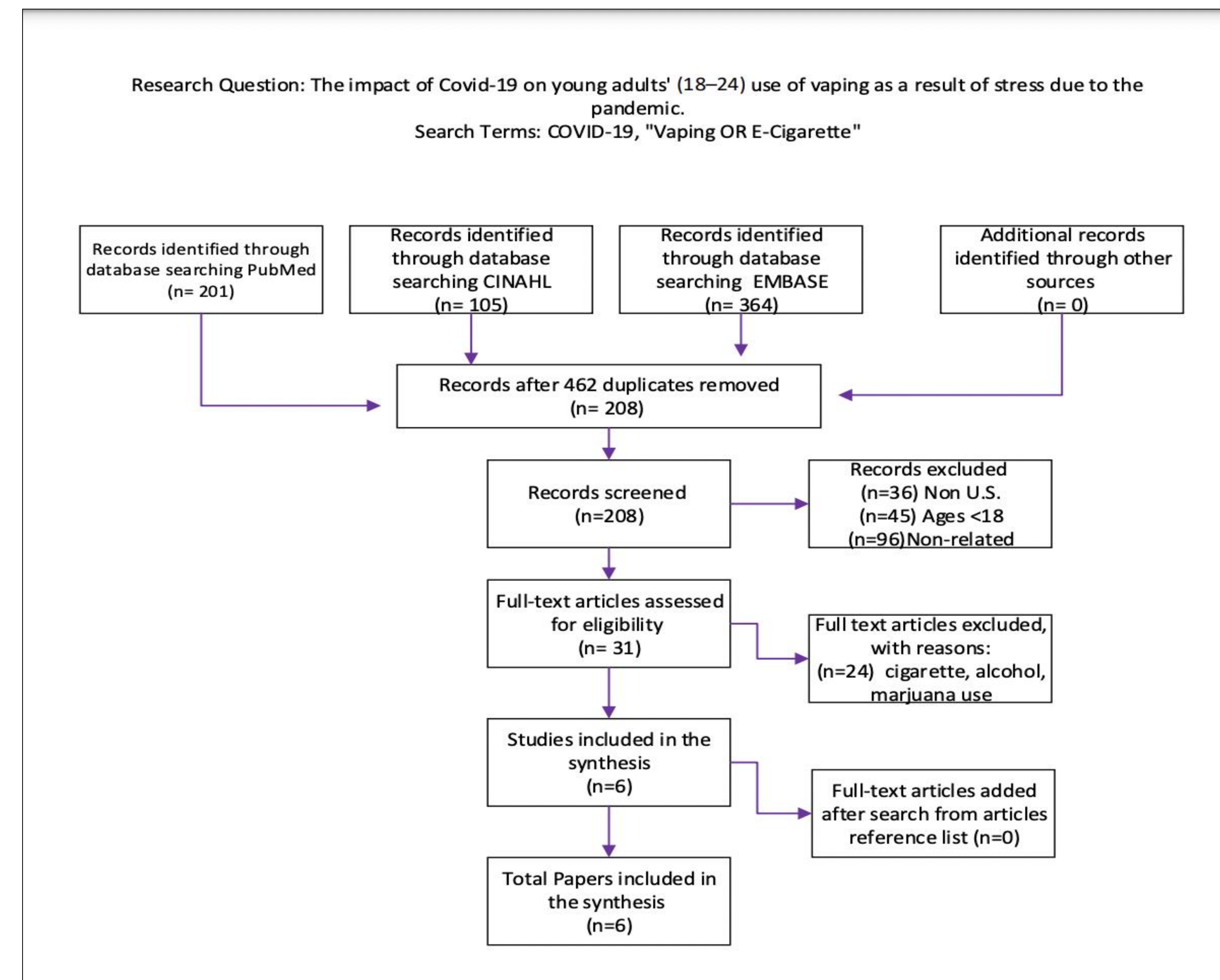
- COVID-19 OR Coronavirus
- E-cigarette OR Vaping
- Stress(ors)

### Inclusion Criteria

- Articles written in English
- U.S. based articles
- Samples of young adults ages 18-24
- Cohort or Cross-Sectional study designs

- Total articles screened and included in synthesis (see Figure 1) were compiled into a matrix for analysis (see Table 1)

## Figure 1. Article Screening Process



## Table 1. Review Matrix

Title	Author Year	Study Population	Study Design	Significant Findings
Preliminary impact of the COVID-19 pandemic on smoking and vaping in college students.	Sokolovsky, A.W., et al. 2021	312 young adults in the U.S. (n=26.6%) enrolled in college and report use of e-cigarettes (n=69)	Cohort study	Vaping frequency decreased from prior closing to since closing; however, decreased frequency does not mean decreased quantity. 24 participants (28.9%) paused past week use since closing
Changes in cigarette and e-cigarette use among US young adults from before to during the COVID-19 pandemic: news exposure and risk perceptions as potential predictors	Bennett, B., et al. 2022	Young adults in the U.S. who reported use of e-cigarettes between 2019 to 2020 (n=687)	Cohort study	There was a correlation between greater exposure to COVID-19 news, fewer days of e-cigarette use within the past month, and no e-cigarette use within the past month for the W3 e-cigarette users who wished to quit. W3 cigarette non-users were more likely to initiate smoking if they were younger, the perceived smoking risk was lower, and they had smoked cigarettes and e-cigarettes throughout their lives.
Decreases in smoking and vaping during COVID-19 stay-at-home orders among a cohort of young adults in the United States	Denlinger-Apte, R., et al. 2022	Young adults from 11 colleges and universities in North Carolina and Virginia who reported e-cigarette use between Spring 2019-Fall 2019 (n=1727)	Cohort study	Wave 14 and 15 determine participants had a 40% odds of reporting 30-day e-cigarette use.
Impacts of COVID-19 on electronic cigarette purchasing, use and related behaviors	Maloney, SF, et al. 2022	U.S. Young adults who've reported e-cigarette use (n=126)	Cohort study	E-Cigarette health considerations, perceptions of COVID-19 and E-Cigarette risks, access to E-Cigarette supplies, alternative products, increased use, altered routines and E-Cigarette use, initiatives to minimize E-Cigarette use, and COVID-19 protection were identified as ten clusters.
Increased nicotine vaping due to the COVID-19 pandemic among US young adults: associations with nicotine dependence, vaping frequency, and reasons for use	Parks, M.J., et al. 2022	U.S. 12th graders who were surveyed at age 19. (n=1244)	Cross-Sectional Analysis	About 16.8% vapers increased use, 44.4% decreased, 38.9 didn't change
Perceptions of tobacco product-specific COVID-19 risk and changes in tobacco use behaviors among smokers, e-cigarette users, and dual users	White, A.M., et al. 2021	U.S. Young adults who've reported e-cigarette use (n=143)	Cohort study	56.1% of e-cigarette users felt their risk of contraction was higher. 27.3% e-cigarette users increase vaping whereas 23.8% decreased

## Results

- Of the 31 articles included in the review, 24 did not meet the inclusion criteria, resulting in 7 articles included in the review.
- Two research articles showed the impact of stay-at-home orders on e-cigarette use.
- Only one of those studies found that e-cigarette use decreased among the study population (n=1,244) when stay-at-home orders were enacted.
- The other five studies examined other potential stressors, such as news exposure (n=687), moving home versus living independently (n=69), access to e-cigarettes (n=126), and risk of contracting the coronavirus (n=143) on e-cigarette use.

## Discussion

- The vaping patterns of young adults were examined to identify possible COVID-19 stressors.
- Many factors may contribute to fluctuations in vaping due to COVID-19 including increased stress, decreased access to products, and initiatives to minimize e-cigarette use.
- Future research should examine how global issues effect the population so that researchers can determine preventative interventions to decrease smoking rates.

## References

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