

## EN\_18458511 Research Introduction

Everyone knows by now that smoking is bad for you. Smoking used to be very popular, but now that it is known to the general public that there are risks to smoking, its popularity has decreased (Dai et al., 2022). Instead, the popularity of e-smoking has increased over the years, which is almost the same as regular smoking, the only difference being the use of electronics instead of regular cigarettes. E-smoking still includes nicotine, flavorings, and other chemicals, so they are just as bad for people as regular cigarettes are. Evidence suggests that the nicotine in e-cigarettes can cause several serious health problems like diseases and addiction. (Banks et al., 2023). Therefore, something clearly has to be done about this increasing popularity.

This rising popularity of e-smoking seems to be concentrated among the population of young adolescents (Fadus et al., 2019). One important reason for this appears to be social media. Several influencers promote e-smoking and evidence indicates that young adolescents who follow these influencers tend to use the particular social media platform more often, resulting in more exposure to e-smoking, and therefore normalizing it. (Lee et al., 2024).

A second, very important, reason for adolescents widespread use of e-cigarettes, is mental health. Young adolescents who report depressive symptoms, stress, or low well-being are more likely to use e-cigarettes (Gardner et al., 2024). This reason is especially important because according to the National Institute for Health and Care Research, the stress among young adolescents has been increasing. That means that the popularity of e-smoking will also keep increasing, because young adolescents will see it as a way out of their stress, in part because of the exposure to e-smoking on social media.

Lastly, their peers are also part of the reason for this concentration, however, we think the other reasons are more concerning seeing as the rising popularity has to start somewhere and peer influence is just a way of spreading this new norm. Furthermore, if more young adolescents quit e-smoking, this will serve as a new peer-influenced norm for others to also quit. That is why we see this more as an intermediary. Young adolescents

are a vulnerable population that are being targeted by e-cigarette companies and we should help them fight back and stop the increasing popularity of e-smoking.

This concerning increase in vaping amongst young adolescents urgently needs to be addressed, but there has not been sufficient research on the effectiveness of vaping prevention and intervention methods. There are certainly some prevention methods already, such as classroom-based methods, community-based methods, and peer-to-peer methods. At first glance all these methods make it seem like there are a large amount of prevention methods and that there is sufficient research on this. However, when diving into the research, most papers state that more research is needed to determine the effectiveness of the used prevention method. Take for example the peer-based method. In a study by Asdigian et al. (2022), they focused on the peer-led program YES-CAN!, which aimed to prevent e-smoking in young adolescents. They concluded that the program has potential, but further research is needed to determine the actual effects of the program, largely to make sure it doesn't have adverse effects. So even if there are a lot of possible prevention methods, their effectiveness has not been scientifically proven.

Our prevention method of choice is the digital method. The reason for this can be explained by the Media Influence Theory, which suggests that social media is a significant factor in shaping behaviors, especially among young adolescents. At the moment, young adolescents are mainly exposed to pro-vaping influences, as we stated earlier, but this can be counteracted by providing anti-vaping content (Lee et al., 2024). We think it is best to provide this content digitally seeing as young adolescents make a lot of use of social media.

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