

The Intersection of Tobacco and Marijuana Use in Adolescents and Young Adults

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In “Tobacco and Marijuana Use Among US College and Noncollege Young Adults, 2002–2016”, Odani et al¹ describe trends from the National Survey on Drug Use and Health on tobacco and marijuana use among respondents 18 to 22 years of age. They conclude that exclusive smoked tobacco use has decreased, whereas exclusive marijuana use has increased over the study period.¹ This decline in smoked tobacco is encouraging because one of the greatest public health successes in the United States is the decrease in combusted tobacco use, specifically cigarettes, as seen in this 15-year study.

When considering the intersection of adolescent and young adult use of tobacco products and marijuana, another factor that should be considered is the dramatic rise in the use of electronic cigarettes (e-cigarettes). E-cigarettes, also known as vape devices or by brand name products such as Juul, are the most common tobacco product used among youth.² Historically, these products have almost always contained nicotine, and reports of the use of these devices to vape marijuana have been increasing.³ In 2017, the Monitoring the Future survey revealed 23.5% of college students and 23% of young adults (19–28 years) vaped in the past year.⁴ Nicotine exposure has adverse effects on the developing brain, and the high levels of nicotine in many of the pod-based e-cigarettes such as Juul are a particular concern.⁵ Adolescents and young adults who use e-cigarettes

compared with those who do not are 4.3 times more likely to smoke cigarettes.⁶ In addition, nicotine exposure may prime the brain for addiction to other substances, including marijuana.^{7–9}

In both longitudinal and cross-sectional studies, researchers have noted an association between e-cigarette and marijuana use. Compared with youth who had not used an e-cigarette, youth who had used an e-cigarette were 3.5 times more likely to use marijuana.⁸ The changing landscape of adult legality and social norms surrounding marijuana are unclear contributors to increased use of marijuana among young adults. As of September 2019, marijuana has been legalized for medical use (with a doctor’s prescription) in 33 states, with recreational use legalized in 11 states plus the District of Columbia for adults ≥ 21 years. Marijuana use has known adverse negative short- and long-term effects including effects on short-term memory and concentration, which can impair learning, decreased lung function, and increase rates of psychosis.¹⁰

In considering the complicated public policy, research, and education around tobacco and marijuana use among adolescents and young adults, it is pertinent to consider co-use (simultaneous use of tobacco and marijuana). In their study, Odani et al¹ do address co-use and acknowledge that many users are not aware that the marijuana product they are using

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contains both substances. With the increase in e-cigarette use, there has been an increased awareness of co-use of nicotine and marijuana.^{3,11}

Blunts, which were also not included in this study, are another example of a product commonly viewed as a marijuana product that can have as much nicotine as a cigarette.¹²

The article from Odani et al¹ helps define the use of combusted tobacco and marijuana among individuals 18 to 22 years old and is relevant in evaluating trends in the use of these products. Although the health risks of using combusted tobacco are well known, further research is needed on long-term health effects of marijuana as well as co-use.² In addition, the evidence of health harms with e-cigarette use continues to grow with the recent cases of vaping-associated severe pulmonary illnesses highlighting these concerns and urgent need for further research.¹³

We must advocate for policies that protect children, adolescents, and young adults^{10,14} by decreasing youth access to and appeal of tobacco products and marijuana, including use in e-cigarettes. The American Academy of Pediatrics advocates banning of Internet sales of e-cigarettes, banning flavors, and raising the age of sale of tobacco products to 21 years. Pediatricians should continue to counsel children and teenagers not to use any tobacco products or marijuana. The American Academy of Pediatrics Julius B. Richmond Center of Excellence has resources for pediatricians who are interested in advocating for policies that protect youth and educating patients, parents, and community

decision-makers about the health risks of tobacco products, including e-cigarettes.

ABBREVIATION

e-cigarette: electronic cigarette

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