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Survey finds link between e-cigarette use and high-risk behaviors

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HOW SAFE ARE E-CIGARETTES, REALLY?

FROM PEDIATRICS

High school students who use electronic vapor products (EVPs), whether alone or in combination with cigarette smoking, are more likely to engage in violence, substance abuse, and other high-risk behaviors, compared with nonusers, according to the results of a national survey.

"Given that EVPs are relatively new to the U.S. marketplace, little is known about the use of these products in the context of other health behaviors, which can persist throughout life and contribute to significant morbidity and mortality during adolescence and adulthood," Zewditu Demissie, PhD, and her associates wrote in a study published online in the Jan. 23, 2017, issue of Pediatrics. They went on to note that to date, "studies on the association between EVPs and health-risk behaviors among adolescents and young adults has been limited to examining the associations between e-cigarette and substance use. These studies have found that use of e-cigarettes was associated with alcohol use, binge drinking, and marijuana use."

In an effort to determine the prevalence and frequency of cigarette smoking and EVP use among high school students, and associations between health-risk behaviors and both cigarette smoking and EVP use, Dr. Demissie of the division of adolescent and school health at the Centers for

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Disease Control and Prevention and her associates evaluated results from the self-administered 2015 national Youth Risk Behavior Survey, which involves a nationally representative sample of public and private school students in grades 9-12 in the 50 states and the District of Columbia. The study sample included 15,624 students who were classified into four exclusive categories of smoking and EVP use based on 30-day use: nonuse, cigarette smoking only, EVP use only, and dual use (Pediatrics. 2017 Jan 23. doi: 10.1542/peds.2016-2921).

Of the 15,624 respondents, 74% reported that they did not smoke cigarettes or use EVPs, while 3% smoked cigarettes only, 16% used EVPs only, and 8% used both cigarettes and EVPs.

Compared with nonusers, cigarette-only smokers, EVP-only users, and dual users were significantly more likely to:

• Engage in a physical fight (prevalence ratio range, 1.7-2.9).

• Attempt suicide (PR range, 1.9-4.0).

• Currently drink alcohol (PR range, 2.6-3.3).

• Currently use marijuana (PR range, 3.5-5.2).

• Report nonmedical use of prescription drugs (PR range, 2.3-4.1).

• Be currently sexually active (PR range, 1.9-2.3).

"Engaging in health-risk behaviors did not generally differ between EVP-only users and cigarette-only smokers," the researchers wrote. "However, cigarette-only smokers were significantly more likely than EVP-only users to attempt suicide, ever use synthetic marijuana, have four or more lifetime sexual partners, drink soda three or more times/day, and be physically active less than 7 days in the 7 days before the survey."

Dr. Demissie and her associates concluded that the findings "underscore the importance of comprehensive efforts to address health-risk behaviors among

adolescents, including prevention strategies focused on all forms of tobacco use, including EVPs. Additionally, educational and counseling efforts focusing on the harms associated with adolescent tobacco use, including EVPs, are critical."

They acknowledged certain limitations of the study, including its observational design and the fact that Youth Risk Behavior Survey data are self-reported.

The investigators reported having no relevant financial disclosures.

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