Smoking Cessation Counseling

David Narain
DEN1100 Principles of Dental Hygiene Care
Professor Susan Davide, RDH, MS, MSEd
November 1, 2021

In recent years electronic cigarettes have become the popular way to smoke tobacco products. Electronic cigarettes are portable battery-operated devices that create an aerosol to be usually inhaled with the active ingredient being nicotine. Initially, it was purported as a safer way to consume nicotine for those addicted to smoking standard tobacco cigarettes. Due to this e-cigarettes were supposed to be used as a tobacco substitute in regards to smoking cessation in adults, similar to chewing Nicorette gum. Despite this claim, a recent CDC study has found that many adults are using e-cigarettes in an attempt to quit smoking. However, most adult e-cigarette users do not stop smoking cigarettes and are instead using both products known as "dual-use" (CDC, 2021). Furthermore, the use of these products has steadily increased and due to marketing is disproportionately affecting the adolescent population, which in turn is creating a new generation of smokers. Studies have shown that the use of e-cigarettes has grown exponentially in middle and high school students since 2014 with the greatest growth between 2017-2019 (Cao, 2020).

What is also alarming is that the CDC finds among the current adult ecigarette users, the percentage that has never smoked cigarettes is highest among those aged 18-24 years, and is lower in older age groups. This correlates with what I have experienced in my own life. I am a middle-aged man and I barely know anyone in my age group that smokes e-cigarettes. The people I know that have tried smoking e-cigarettes switched back to cigarettes or have never tried smoking e-cigarettes at all. This current trend that seems to be affecting today's youth is the reason why I chose to discuss this particular tobacco product.

E-cigarettes usually contain a solution of purified nicotine suspended in a mixture of glycerin or propylene glycol with water and flavor chemicals. This solution is heated with a heating element and as a result, the vapor is made and inhaled by the user. In general e-cigarette aerosols generally contains fewer toxic chemicals than regular cigarettes. However, the CDC states, that it can contain harmful and potentially harmful substances, including nicotine, heavy metals, volatile organic compounds, and cancer-causing agents (CDC, 2021). To attract customers e-cigarette companies have made many flavors that can contain a plethora of ingredients that can be potentially harmful to the user.

These products can drastically affect people's oral health and overall systemic health. E-cigarette companies claim their products are "safe". They base this claim on the simple fact that the products do not deliver toxic doses of nicotine nor does the solution contain toxic ingredients. Since e-cigarettes are a relatively new product, the long-term health effects of the ingredients in the e-liquid are yet to be confirmed. Yet it is known that the additives in the solution used by e-cigarettes can have adverse effects on people. The phenomenon of "popcorn lung" (bronchiolitis obliterans) is associated with e-cigarettes. This is due to the chemical diacetyl, which is used in flavoring. "Diacetyl, a common buttery flavoring agent, has known pulmonary toxicity with inhalational exposures leading to bronchiolitis obliterans" (Cao, 2020). Additionally, one must also consider the potentially harmful effects that can occur once the e-liquid is heated. These "new" chemicals that would arise from heating the solution/concentrate can also prove to be harmful and affect people's overall health.

It is imperative that dental hygiene professionals provide counseling in the smoking cession of tobacco and tobacco-related products. Gehrig states that routine dental hygiene visits provide a unique opportunity to document tobacco use, relate oral health findings to a patients' use of tobacco, and provide cessation support (Gherig, pp.344). Smoking is one of the main contributing factors to overall health, especially oral health. "Smoking may be responsible for more than half of the cases of periodontal disease among adults in this country (Gherig, pp. 356). If this is the case smoking tobacco can be considered the primary risk factor for developing periodontal disease. It is one of the core values of the dental hygiene professional to exhibit beneficence. Thus, dental hygienists must promote the well-being of their patients and the public by promoting disease and prevention and smoking cessation falls under this notion.

If I encountered a teenager that started smoking 2 months ago I would first ascertain how often he/she smokes. Hopefully, the teenager only smokes socially and has not yet become a habitual nicotine addict. I would proceed to advise them on the importance of not smoking tobacco products and how smoking cessation would be in the best interest of their overall health. I would then assess if the teenager would be willing to quit and inquire if they know of strategies on how to quit. I would then assist them in coming up with a more structured plan on smoking cessation and explain how they could go about that. Finally, I would arrange a follow-up date to ascertain the progress of the teenager, and depending upon that I would determine if another approach would be more practical or maybe a referral is needed.

In the case of a 30-year-old adult who has been smoking for 12 years, I ask the individual first how often he/she smokes so I can gauge the degree of addiction. This could be an indication of how difficult it would be to quit smoking since I know how hard it can be to break old habits. I would advise them that smoking cessation would be the greatest gift they can give themselves by improving their oral health and ultimately their overall well-being. Afterward, I would assess how committed they are willing to making such a lifestyle change and see if they are aware of the various options there are in helping them to quit smoking. Then I would assist them in making a more concrete plan in regards to quitting and give them information on the various tools available for them to achieve their goals. Lastly, I would arrange a follow-up to monitor their progress and ascertain whether progress was made or if another approach would make smoking cessation more feasible.

This assignment has shown me how widespread the use of e-cigarettes is among the youth. What is also disturbing is the fact that e-cigarettes are purported as a tool to help people wean themselves off the addiction to regular cigarettes. Instead, it is being used by a segment of society that has never even smoked a regular cigarette. If you look more closely e-cigarette companies have successfully created a new generation of nicotine addicts.

This assignment was beneficial to me in a multitude of ways. It clarified the different forms of vaping. The term vaping has become ambiguous and can mean different things. For example, I initially heard of vaping long before ecigarettes were in use. Vaping was when a dry herb whether it be marijuana or eucalyptus is heated via convection/conduction at a temperature right below combustion and the vapor of the herb would be smoked and in theory, all the tar and carcinogenic material would be left behind. Whether it is "healthier" is

irrelevant because the evidence clearly shows that all forms of smoking are bad for the lungs. However, currently vaping mainly means liquefied or semi-solid concentrates that are being smoked. These concentrates of marijuana and tobacco are mixed with other additives/chemicals to enhance user experience. These chemicals presently have unknown long-term effects on the lungs which I find very disturbing.

Growing up I experienced my father and uncles smoking cigarettes. Eventually, my father stopped smoking after developing a persistent cough. He mentioned to me that the experience of stopping cigarettes was one of the hardest things he has done in his life. He was a physician and he compared nicotine addiction to heroin addiction and the comparison was enough for me not to try smoking cigarettes. I currently have a few friends that smoke regular cigarettes and some of them have tried e-cigarettes but due to the unknown effects of the chemicals added they have reverted to smoking regular cigarettes or stopped completely.

I feel very confident talking to potential patients about the many reasons why smoking cessation is imperative to their oral health and overall well-being. I believe oral health is the main indicator of a person's overall health. If a person's oral health is compromised it is usually a sign of an underlying problem. The effects of tobacco on the human body are well known and documented. It not only affects the lungs but the entire body and therefore it is paramount that people who smoke tobacco products strive for smoking cessation. However, this new generation of smokers that are smoking e-cigarettes create new challenges in smoking cessation since vaping is purported to be "healthier" and with these new additives/chemicals that have not been researched the long term effects, it is concerning but that challenge is going to have to be met for our prospective patients to be able to live their most healthy lives as possible.

References

- About Electronic Cigarettes (E-Cigarettes) | Smoking & Tobacco Use | CDC. (2021, September 30). Centers for Disease Control and Prevention.

 https://www.cdc.gov/tobacco/basic_information/e-cigarettes/about-ecigarettes.html
- Barrington-Trimis, J. L., Samet, J. M., & McConnell, R. (2014). Flavorings in Electronic Cigarettes: An Unrecognized Respiratory Health Hazard? JAMA: the Journal of the American Medical Association, 312(23), 2493–2494. https://doi.org/10.1001/jama.2014.14830
- Cao, D. J., Aldy, K., Hsu, S., McGetrick, M., Verbeck, G., De Silva, I., & Feng, S.-Y. (2020). Review of Health Consequences of Electronic Cigarettes and the Outbreak of Electronic Cigarette, or Vaping, Product Use Associated Lung Injury. Journal of Medical Toxicology, 16(3), 295-310. https://doi.org/10.1007/s13181-020-00772-w https://www.cdc.gov/tobacco/basic_information/e-cigarettes/about-e-cigarettes.html
- Gehrig, J. (2018). Patient Assessment Tutorials: A Step-By-Step Guide for the Dental Hygienist (4th ed., pp. 342–364). Wolters Kluwer.
 - Goniewicz, M. L., Knysak, J., Gawron, M., Kosmider, L., Sobczak, A., Kurek, J., Prokopowicz, A., Jablonska-Czapla, M., Rosik-Dulewska, C., Havel, C., Jacob, P., & Benowitz, N. (2014). Levels of selected carcinogens and toxicants in vapour from electronic cigarettes. Tobacco Control, 23(2), 133–139. https://doi.org/10.1136/tobaccocontrol-2012-050859