Evelina Kaczynska

Term Paper

Nov. 27th, 2022

Electronic Cigarettes

A new public health problem has risen. The increased use of electronic cigarettes by adults and teenagers, also known as "vaping" has taken the world by strom. An electronic cigarette (EC) is a battery-operated device designed to heat a chemical solution and deliver aerosolized nicotine-containing vapor to its user. (Martell, 2020) The basis of an e-cigarette is a nicotine liquid containing various concentrations, such as but not limited to, propylene glycol, glycerin, water, and flavor aroma compounds. According to statistics, more people, particularly young people of school age, are using this device regularly. I selected to discuss this topic further because the lack of knowledge about the harmfulness of using these devices and their impact on health is low in society. Many people do not realize their potential for addiction since they believe they are safe or a better option than traditional cigarettes. Others use e-cigarettes in hopes that they may make it easier for them to wean off nicotine and stop smoking altogether. The adverse effects of conventional cigarettes are well known because they have been observed and studied for many years. Their effect on the body's immunity and more importantly pertaining to the oral cavity is well known and has significant evidence-based studies that support the effects we commonly see in smokers, periodontal inflammation, and a patient’s predisposition to pre-cancerous and neoplastic lesions. At the same time, when it comes to the e-cigarette, due to a shorter observation period, there are fewer studies on the impact of e-cigarettes pertaining to oral health and one’s overall health for that matter. For this reason, it is strongly suggested that dentists and dental hygienists educate their patients and guide them towards proper modes of smoking cessation. It is important to discuss the mental and physical addiction of e-cigarettes. Those who are using e-cigarettes to quit smoking are only feeding their addiction tenfold. They no longer have to step away from what they are doing to satisfy their need, therefore allowing for frequent intake. Smoking a conventional cigarette requires more work, whereas the e-cigarette can be used anywhere.

According to the "Knowledge, Attitudes, and Practices of Young Adults Regarding the Impact of Electronic Cigarette Use on Oral Health" article, Numerous reports from the Centers for Disease Control and Prevention link vaping to a national outbreak of a debilitating pulmonary disease known as e-cigarette or vaping product use- related associated lung injury (EVALI). (Martell, 2020) Dentists and dental hygienists frequently observe the effects of fractured and cracked teeth as well as bone loss, particularly around implants. The number of microorganisms in our oral cavity increase with the use of an e-cigarette. Several changes to the oral cavity are seen as a result from using electronic cigarettes often. It was also discovered that the e-cigarette encourages the development of bacterial biofilm. The research team surveyed people who use vaping devices to find if they know what chemicals are in vaping devices and how bad they are for their oral cavity. According to their findings, with one meaning not familiar and seven very familiar, the participants were close to the middle of the scale. As they continued, one question was whether they had discussed their oral health with their dentist or dental hygienist since they started vaping. A hundred and forty people out of one hundred and sixty-seven answered "no". Most of the participants were willing to talk about the effects of vaping as pertaining to their oral cavity since they visit a dental hygienist twice a year. Additionally, if they know that vaping s harmful to their overall health, they are ready and willing to stop the habit. That is why in my opinion, a simple educated, honest and open conversation without judgement with a patient will help them become more aware and understand that even though they think vaping is not as harmful as regular cigarettes, it will affect them in many other ways.

All dental hygienists should be highly educated about cigarettes as well as e-cigarettes to be able to talk about them with their patients. E-cigarettes affect the oral cavity based on use by non-smokers and might include mouth and throat discomfort, oral mucosal lesions, changes in the oral microbiome, and dental and periodontal damage. (Briggs, 2021) It is important, as providers, to review patient medical history at the start of their appointment. Reviewing their medical history and whether they smoke and what mode of tobacco use is used, gives providers the opportunity to learn why, when and what as well as educate the patient on the harm. The provider gets a chance to understand for how long and how much use is happening. If the provider speaks in a nonjudgmental manner, the patient will be receptive, honest, and open with the provider. For example, we may have a teenage patient who started smoking two months ago. At first, they might try to hide it because they are ashamed, but the findings of the provider will be a tell all. As dental hygienists, we can quickly tell if someone is vaping by the build-up on their teeth.

Convincing someone who started smoking very recently may be easier to educate and more willing to kick the habit as opposed to someone who has been smoking for many years. When it comes to younger individuals, it is a known fact that the majority of young people care about their looks, and everyone wants a bright white smile which is another factor for quicker cessation of tobacco use. When dental hygienists must convince someone who has been addicted to tobacco for so many years, it can be more complicated. Providers will frequently hear things like, “I’ve been smoking for so many years and I’m still here”, or “I’m old and have been smoking for so many years, and nothing has ever happened, why quit now", with that all being said, it is important to educate the patient that vaping (and cigarette use) has a high risk of causing oral cancer as well as the risk of cavities, dry mouth, fractured teeth and masked disease of the oral cavity. Most of the time, this open conversation is enough for them to quit vaping, and sometimes it takes several visits with constant gentle reminders to do the trick. It is important that providers never give up on educating their patients at every visit. Collecting diagnostics and reviewing the providers findings with the patient gives an extra piece of the larger picture. It allows the patient to see for themselves what the provider has been educating them on. It gives life to the words. Speaking about bone loss and its progression means nothing without a visual. Showing a patient what bone loss in radiographs or in photos looks like has greater impact, which in turn creates a shift in one’s initial mindset.

During this assignment, I did a lot of research about e-cigarettes, and I learned plenty of information I did not know. Personally, I have many friends who vape quite frequently, and I never had enough information to help them see the importance of stopping. I feel that after my research, there is still much to learn about this new trend, but I am more equipped and more confident as well as comfortable in educating my friends and patients about the risks involved with e-cigarettes. The more research we do over time, the easier it is for dental hygienists to convince people to change habits that have great impact on their overall health. Of course, we do not want to get anyone upset or overwhelm them, but by educating at each visit, we can change our patient’s perspectives. Afterall, that is the goal, being compassionate and showing empathy leads to trust and openness from our patients.

Refrences:

1. Martell, Boyd, L. D., Giblin-Scanlon, L. J., & Vineyard, J. (2020). Knowledge, attitudes, and practices of young adults regarding the impact of electronic cigarette use on oral health. The Journal of the American Dental Association (1939), 151(12), 903–911. <https://doi.org/10.1016/j.adaj.2020.08.002>
2. Briggs, Bell, C., & Breik, O. (2021). What should every dental health professional know about electronic cigarettes? Australian Dental Journal, 66(3), 224–233. <https://doi.org/10.1111/adj.12818>
3. AlQobaly, Abed, H., Alsahafi, Y., Sabbah, W., & Hakeem, F. F. (2022). Does smoking explain the association between use of e-cigarettes and self-reported periodontal disease? Journal of Dentistry, 122, 104164–104164. <https://doi.org/10.1016/j.jdent.2022.104164>