

Bradley Augustin

Den 1100 Section: OL10

Writing Assignment #1

11/1/2021

It's 7 am. I'm waiting on the L train, on my way to class. It's a little brisk, so naturally, one can see their own breath. But there was this one kid. His breath was thick and white and resembled a cloud. "Oh, he's vaping", I thought to myself. An MTA employee sees the kid and confronts him. "No smoking in the station!" The kid replies, "I'm not smoking, it's just vapor." The MTA employee laughed and said, "It'd be better if you were smoking an actual cigarette than that crap, anyway no vaping". I thought to myself, "Not sure if I'd agree with that, but whatever", as the kid puts it away in an angry fashion. Fast forward; I'm waiting for the A train now. I see a thick white cloud again out the peripheral of my eye. But it wasn't the same kid. Now, it was a group of kids, all using electronic cigarettes, or, what they like to consider, "vaping". These kids couldn't be any older than 18, and it was such a disappointing sight to see.

The short story I shared vividly describes the reason I chose this tobacco product. It is so prevalent among our youth and young adults today. According to Patient Assessment Tutorials (PAT) by Gehrig, in 2014, nearly 4 out of every 100 middle schoolers, 13 out of every 100 high school students, and almost 13% of adults have reported that they used e-cigarettes. Many find themselves using electronic cigarettes because the aesthetic is pleasing, is battery-operated which allows for multiple uses, and they are easy to use. According to Dr. Lauren M. Dutra (Ph.D.), Electronic cigarettes (e-cigarettes) are devices that deliver a heated aerosol of nicotine in a fashion that mimics conventional cigarettes, while delivering lower levels of toxins than a conventional cigarette. Basically, this means that you get the same amount of nicotine from an e-cigarette without the levels of toxins in a conventional cigarette. Unlike conventional cigarettes, most e-cigarettes do not have tobacco, which is why some people believe it is harmless. However, that can't be further from the truth. Most, if not all e-cigarettes contain nicotine, which causes the user to become addicted to smoking. Also, e-cigarettes use liquid flavors such as strawberry, chocolate, or licorice (that appeal to youth), which produce toxic fumes and carcinogens that cause harm to the user and anyone around them, which is secondhand smoke. Moreover, the liquid flavors can have a negative impact on the oral hygiene and systemic health of the user due to their ingredients. In their article, "Potential oral health effects of e-cigarettes and vaping: A review and case report" Irusa (BDS), Vence (DDS), and Donovan (DDS) explain how glycerin, in combination with most liquid flavorings, results in a "4-fold increase in microbial adhesion to teeth and two times increase in biofilm formation." Biofilm formation is when a thin shiny film of bacteria adheres to the surface of the tooth and forms clusters, which then form into a matrix, creating an environment where other bacteria and microorganisms can thrive and reproduce. This environment allows more plaque (biofilm) and tartar (dental calculus) to form on the teeth, causing inflammation of the gums and diminishing oral health. Furthermore, sucralose, also a common ingredient found in liquid flavors of e-cigarettes, provides a sweet taste that causes an increase in biofilm production and enamel demineralization. Enamel demineralization is the process where the enamel (outer shell) of the tooth, begins to dissolve superficially. It is the earliest stage of tooth decay. When the electronic cigarette is being used, the viscous aerosols produced by heated e-liquids allow a bacteria named *Streptococcus Mutans* to stick to enamel, which can result in enamel demineralization and can

lead to dental caries (tooth decay caused by bacteria) in the user of electronic cigarettes. Electronic cigarette use is still clinically considered smoking, which will more than likely lead to the dental issues previously stated, systemic health issues such as head and neck cancer, cardiovascular disease, lung disease, and stroke.

Thus, it is important to provide smoking cessation counseling to your patient during their dental hygiene visit because smoking is one of the leading preventable causes of illness and death. Smoking may be responsible for more than half of the cases of periodontal disease among adults in this country (PAT). As dental hygienists, we are one of the most accessible health care professionals and are in an ideal position to provide tobacco/smoking cessation services. If a dental hygienist talks to their patient, even for a short time, it can increase the rate of quitters, which can have a positive impact on public health. Most smokers cite that it was the advice of a health care professional (to quit) that served as motivation for them to quit smoking.

For a teenager who started to smoke about two months ago, I would use the 5 A's Method. I would first ask if they were a smoker and why do they smoke. After actively listening, I would advise the patient to quit smoking, expressing optimism that the long-lasting effects of smoking most likely have not yet manifested, all the while emphasizing the importance of quitting as soon as possible. One main point I would use would be that if they were to continue smoking, dying early from a smoking-related illness such as lung cancer, oral cancer, or pharyngeal cancer is far more likely, compared to a non-smoker. Also, I would iterate how smoking will negatively affect their lung growth, physical fitness, skin, and cause yellowing of the teeth, which plays a major role in your appearance (which is very important to most adolescents). After providing this information, I would assess the patient's willingness to quit, and ask the patient do they have any knowledge on any external resource such as a quitline number. According to PAT, evidence suggests quitline use can more than triple success in quitting. Encouragement is important, so I will remind the patient that fear, reluctance, triggers and withdrawal symptoms are a normal part of the process and assist with reviewing options that may best suit them. Finally, I will arrange for a follow-up to lessen the likelihood of relapse and to see whether the process of quitting for the patient is working. If not, more discussion on how to avoid relapse and more intensive treatment may be needed.

For a 30-year-old adult who has been smoking for 12 years, my approach would be like that with the teenager, using the 5 A's method, but differ in the subject. I would ask how many times they have tried to quit, to get a better understanding of their willingness to quit. Most patients who are long-time smokers attempted to quit several times, but without proper help, we're unable to do so. My advice to stop smoking would be clear, strong, and personalized to express concern for the patient's oral health. Almost certainly, smoking for 12 years will have visible negative impacts on the oral cavity that I as a clinician would be able to identify, show and explain to the patient, to reinforce that smoking is harmful to their oral health (i.e., Nicotine Stomatitis). I will educate the patient that smoking makes them more susceptible to periodontitis, making them 12 to 14 times more likely to have severe bone loss. In addition, I would tell my patient that they are at an increased risk for heart disease, lung cancer(s), head and neck cancers, and other systemic health issues. After informing my patient of all the health risks, I will explain that smoking cessation has benefits that are almost immediate, which is why it is never too late to quit. Most smokers feel that since the "damage" is already done, there is no point in quitting, and they might as well continue to smoke. This can't be further from the truth. The risk of heart attack begins to drop just after 24 hours of cessation, and within 2 weeks to 3 months, your lungs

begin to repair, and function begins to increase gradually over time. Although the bone loss in the periodontium cannot be reversed, the likelihood of periodontal disease is the same as a non-smoker after a few years of cessation, and their overall health and oral health will have improved. Finally, I'd remind the patient that withdrawal symptoms, triggers, fear, and reluctance are all normal and a part of the process and refer my patient to a quitline and arrange for a follow up to determine if it is working for the patient, or more intensive treatment is needed.

I have learned a great deal from this assignment. The effects of electronic cigarettes are more damaging than I imagined. Just because tobacco is not involved in most uses of e-cigarettes, doesn't mean the effects of the fumes and toxins exuded by e-cigarettes are harmless. The effect it has on the user's oral health is pernicious. Usually, the first thought that came to mind when I saw someone smoking was their lungs being inflicted. Seldom did I think about their oral health and that smoking it is one of the leading causes of periodontal diseases. Also, the long-lasting effect on the human body is significant. From head and neck cancers to lung cancer, stroke, and cardiovascular diseases; the list goes on. This assignment was beneficial, as it provided me with a deeper understanding of how electronic cigarettes are used, what they contain, and the negative effect they have on oral hygiene and the overall health of a person. It expanded my knowledge on this topic and provided me with more objective information to form a solid and concise rationale to quit smoking for future patients of mine who will be smokers. Also, I have a few friends who use electronic cigarettes. After this assignment, I feel that I can have a deeper dialogue with them about all the dangers of smoking, instead of just exclaiming "You should stop!". Now, I can tell them why they need to quit, what will happen to their systemic and oral health if they don't and provide smoking cessation resources to aid them quit. I can say with confidence that I am comfortable discussing smoking cessation with future patients who are smokers, due to the information I learned, as well as the practice I will receive during future clinical sessions.

References

Off Campus Access @ City Tech. (n.d.). Login.citytech.ezproxy.cuny.edu. Irusa, K. F., Vence, B., & Donovan, T. (2020). Potential oral health effects of e-cigarettes and vaping: A review and case reports. *Journal of Esthetic and Restorative Dentistry*, 32(3), 260–264. <https://doi.org/10.1111/jerd.12583>

Off Campus Access @ City Tech. (n.d.). Login.citytech.ezproxy.cuny.edu. <https://web-p-ebscohost-com.citytech.ezproxy.cuny.edu/ehost/pdfviewer/pdfviewer?vid=1&sid=d6a13453-8e36-40d4-b05f-7a73474ca033%40redis> Dutra, L. M., & Glantz, S. A. (2014). Electronic Cigarettes and Conventional Cigarette Use Among US Adolescents. *JAMA Pediatrics*, 168(7), 610. <https://doi.org/10.1001/jamapediatrics.2013.5488>

Off Campus Access @ City Tech. (n.d.). Login.citytech.ezproxy.cuny.edu. <https://web-s-ebscohost-com.citytech.ezproxy.cuny.edu/ehost/detail/detail?vid=0&sid=1c51799c-accd-4e02-ae35-0f8e07375b5a%40redis&bdata=JnNpdGU9ZWwhvc3QtbGl2ZSZzY29wZT1zaXRl#AN=115952642&db=8gh>

Gehrig, J. S. (2018). *Patient assessment tutorials: a step-by-step guide for the dental hygienist*. Wolters Kluwer Health.