

Student Name

Implications of Tobacco and/or Marijuana Use

PICO Question:

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Introduction

Evidence that smoking tobacco has adverse health outcomes has been accumulating for some time now. The public started listening only when the publication of the general surgeon's report came out in 1964¹. Now, we have extensive information on how smoking tobacco impacts the body. Much like tobacco, marijuana has been around for years. Since it was federally outlawed in 1937, only recently has the number of users spiked in the 1970s². Since 2007, the number of marijuana users has been on a steady incline year after year³. Due to the only recent prevalence of marijuana use, little research is still conducted, especially on oral health⁴. Similar to tobacco use, marijuana has been linked to an increased risk of lung damage and oral diseases, such as oral cancer, periodontitis, and dental caries⁵. Fortunately, many risks associated with smoking tobacco and/or marijuana can be avoided. Dental caries, better known as tooth decay, is a widespread but preventable oral disease that can affect people of all ages, races, and origins but can be exacerbated by the use of tobacco and/or marijuana⁶. Those who use tobacco and/or marijuana are at an increased risk of oral diseases versus non-users. With the increasing presence of smoking amongst adolescents/youth, dental professionals must be aware of the signs to help prevent and combat poor oral health⁷. The increased risk of poor oral health from smoking necessitates preventative strategies like more comprehensive medical histories to improve better oral health outcomes. This paper will discuss the prevalence of tobacco and/or marijuana use, its implications for oral health, and how dental professionals can help.

Prevalence

Every day, increasingly, adolescents/youth begin smoking¹. From 2009 to 2011, smoking amongst high schoolers increased from 17.5% to 19.7%. In the middle of that period in 2010, approximately 1.4 million adolescents under the age of eighteen reported smoking cigarettes for

the first time within the past twelve months. It is reported that about 8% of adolescents between the ages of ten to nineteen smoke cigarettes every day⁵. Later in adulthood, more than 15% reported smoking cigarettes every day². Similar to tobacco use within adolescent populations, the use of marijuana also peaked in the 1990s. Marijuana trends continue to peak, and in 2011 it was reported that 16.7 million adolescents twelve and older reported smoking marijuana in the past 30 days⁸. As marijuana laws continue to loosen, marijuana prevalence will continue to grow².

Implications for Oral Health

As the data shows, continuing use of tobacco and/or marijuana will begin to have noticeable impacts on one's oral health. Studies continue to support evidence that smoking tobacco is associated with an increased prevalence of dental caries⁶. Specifically, heavy smokers, defined as smoking 25 or more cigarettes a day, revealed having more cases of dental caries⁴. To clarify, dental caries is tooth decay, commonly known as cavities⁶. Other studies equated smoking cigarettes with eating sugary snacks and drinks⁹. Similar investigations, but with marijuana use, have also found a link between marijuana use and dental caries⁷. Unfortunately, due to its recent prevalence, only one longitudinal study across seven years, compared varying degrees of marijuana use and its impacts³. In this study, it was found that by the age of 32, frequent exposure to marijuana use was associated with an increased incidence of periodontal loss. In fact, it is found that constant marijuana use can triple the risk for periodontal disease because it can produce chronic inflammation of the gums. Further studies claim that smoking either tobacco and/or marijuana has been documented to increase the severity and likelihood of dental caries amongst adolescents, who have been exposed for more than eight years⁹. Furthermore, missing and/or filled teeth and instances of untreated dental caries were significantly higher amongst users of tobacco and/or marijuana versus nonusers. Other

consequences associated with tobacco and/or marijuana use include discoloration and foul odor production⁶. A combination of cigarette use and marijuana use has even bigger implications for untreated dental caries⁹.

A Solution

Patients who use tobacco and/or marijuana pose a greater risk of dental complications, such as dental caries and/or periodontitis disease than nonusers⁶. Due to the rising smoking prevalence among adolescents, these complications could start as young as ten years old⁵. For these reasons, but not these reasons alone, it is necessary that dental professionals educate themselves on the adverse effects of using tobacco and/or marijuana, and how to identify the signs. A wider scope of a patient's medical history should also be implemented prior to seeing the patient. More in-depth medical histories could ask questions pertaining to consumption patterns, and degree/frequency of use. In a doctor's office, patients are questioned about substances such as tobacco, marijuana, other illicit drugs, and alcohol. It is time for the same screening process to be applied in dental offices. By actively staying updated with patients and their medical histories, dental professionals can catch oral complications early on and proactively begin the best course of treatment for them.

Conclusion

Individuals who use tobacco and/or marijuana welcome a host of dental complications. Tobacco use has been around for some time now, but as we see marijuana laws loosen, it would not be surprising to see a surge in its use. Dentists and dental professionals are the gatekeepers to good dental hygiene. With more users, and younger users, of tobacco and/or marijuana, dental professionals must be equipped with not only the right tools but the right information, if they have any chance of combating dental complications associated with tobacco and/or marijuana

use. Further research can be done to see how implementing a more thorough medical history impacts patients' dental health outcomes.

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