

**Tobacco Cessation and Water Pipes**

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The use of tobacco in its various forms is a growing global epidemic. Various scientific studies have identified it as the most significant preventable cause of illness and death. “Smoking causes more deaths than AIDS, alcohol, accidents, suicides, homicides, fires, and drugs combined“ (*Gehrig, 2018*). Smoking is so harmful to a person that even secondhand and thirdhand smoke is of genuine concern and can cause harm. According to the World Health Organization (WHO), over 1 billion people are addicted to tobacco smoking, and it is estimated that the number of tobacco-related deaths will rise from approximately 6 million deaths per year now to around 10 million per year by 2030.

Tobacco cessation is the process of quitting the use of tobacco. “*Tobacco cessation* may be defined as validated sustained abstinence from cigarettes and other tobacco products for at least six months, but preferably for a year” (*Goel et al., 2020*). It is essential in lowering avoidable illnesses and fatalities. The 2008 U.S. Public Health Service clinical practice recommendations for treating tobacco use and dependence determined that telephone, group, and individual counseling are efficient methods for quitting smoking, in line with the ADA. They have also proven to be an extremely cost-effective method of intervention. According to studies, spending money on tobacco cessation treatments might significantly save Medicaid programs. “Further federal and state policy actions to promote and cover comprehensive tobacco cessation services in Medicaid may be a cost-effective approach to improve health outcomes for low-income populations.” (*Richard et al., 2012*)

When a person talks about tobacco usage, the first image that comes to mind is cigarettes. Although they are the most commonly used form of tobacco, many other forms include smokeless tobacco, i.e., chewing tobacco, moist tobacco like “snus,” and dissolvable tobacco.

Other methods of “smoking” tobacco include cigars, water pipes (i.e., hookahs), and electronic cigarettes (e-cigarettes).

Water pipes are just one of the many "other" ways of using a tobacco product. It is probably better known as "hookah" as it continues to gain popularity. The many newly opened hookah lounges across the country's neighborhoods attest to that. Moreover, that is without considering the vast number of hookahs bought to use at home! In many parts of the world, it is also known as "shisha." Many partake in it on a very regular basis, as a part of their social interaction with family, friends, and peers. To them, “the evening is not complete, without it”. They, like many others, enjoy the social aspect of it and feel that it is not as bad as smoking a cigarette. After all, smoking through a bowl of water has to filter it to some extent - making it the "safer" choice.

Hookah is primarily used by heating a sweetened flavored tobacco mix in the Hookah with charcoal. This produces a sweet-smelling flavored vapor. The vapor produced then passes through the water-filled body of the Hookah and is finally inhaled via the mouthpiece. The rising popularity of Hookah is due to its social component. It is usually done in groups with friends with food and drink, creating an entertaining environment.

Many believe that smoking tobacco after it passes through water is safer. It is thought that the water in the hookah removes the harmful chemicals from the tobacco smoke, essentially filtering it. This is, unfortunately, not true. Studies have shown that the tobacco smoke produced by these “safer” water pipes still has high levels of nicotine and other toxic products/ carcinogens like carbon monoxide and tar. “ Relative to one cigarette, a single hookah smoking session exposes users to higher levels of smoke, nicotine, tar, and CO.” (*Majeed et al., 2017*). Analysis of available data has shown that hookah smoking is linked to a higher risk of lung and esophageal cancer.

The usage of Tobacco and its related products have always been ill-advised, but not to the extent it is spoken about today. "Nowadays, tobacco consumption has become one of the major public health problems and is the leading cause of escapable illness and death." (*Goel et al 2020*). The Surgeon General's Report of 1964 was the first message to increase public awareness significantly. Several studies have linked smoking to various health conditions and complications. "Tobacco is the only legal drug that kills many of its users when used exactly as intended by its manufacturers." (*Goel et al., 2020*). These range from conditions like cancers of the lung, mouth, larynx, and pharynx to cardiovascular and lung diseases like CVA / stroke, COPD, coronary artery disease, and abdominal aortic aneurysms. It can also cause various complications during pregnancy, such as spontaneous miscarriage, fetal heart defects, low birth weight, or even premature babies being born. The oral cavity is one of the significant pathways of tobacco "abuse." As such, it, too, bears the brunt. "Tobacco use remains a persistent and, in some cases, growing problem that will continue to be a fundamental challenge facing dental practitioners in the decades ahead." (*Chaffee et al., 2016*). Although it is now well known to be involved in many cancers and other systemic conditions, tobacco use also plays a role in various oral conditions. "It is a primary risk factor for oral cancer, as well as leukoplakia, periodontitis, and delayed wound healing" (*Goel et al., 2020*)

A dental practice offers a convenient setting for the recognition and cessation of tobacco usage. As a DHCP, we are uniquely positioned to interact with our patients regularly during their scheduled dental care appointments. According to the ADA, dentists may assist smokers in giving up by routinely detecting those who smoke, encouraging them to stop, and providing them with information about treatment options. "Given both the significant public health and patient-centered benefits of tobacco cessation, and considering the opportunity for frequent

patient interaction in a dental clinical setting, the dental practitioner is uniquely positioned to educate and motivate patients to initiate and continue a tobacco cessation program.” (*Chaffee et al., 2016*).

One of the most arduous and challenging activities a person can take is quitting tobacco products, but the rewards are great! It significantly lowers the chance of various harmful health consequences, including poor reproductive outcomes, cardiovascular disorders, cancer, and chronic obstructive pulmonary disease (COPD). People with heart disease and COPD who stop smoking can also benefit.

The most important fact that we can drive home to a patient, even a long-term smoker, is that it is never too late to quit. Doing so positively impacts our overall health and well-being in many ways. This extends to healthy smokers and those already suffering from a tobacco-related disease or condition. Smokers who quit can already start repairing their bodies - increasing lung function and decreasing the risk of heart attack within weeks of quitting! “Smoking cessation represents the single most important step that smokers can take to enhance the length and quality of their lives” (*Gehrig, 2018*).

We have always been told that numbers don't lie. According to the CDC, the numbers are in favor of adults who want to quit. “Most adult cigarette smokers want to quit . In 2015, 68.0% of adult smokers (22.7 million) said that they wanted to quit smoking.” (*CDC, 2022*)

Even though it is not easy, a truly motivated person can quit, despite years of smoking and a constantly growing addiction to nicotine. It is essential to remind the person that they may

fail their first time trying to quit, but that they should keep trying, keeping the goal of a smoke-free life foremost in mind. “More than three out of five adults who have smoked cigarettes ever have quit. In 2018, 61.7% of adult smokers (55.0 million adults) who ever smoked had quit.”(CDC, 2022)

Overcoming any kind of addiction is difficult, and an addiction to tobacco and its products is one of the harder ones. The nicotine of tobacco is extremely addictive, even more so than “dangerous” substances like cocaine and alcohol. This strong addiction does increase the chances of relapse, but it can be overcome. “Smokers can and do quit smoking for good. In fact, since 2002 there have been more former smokers than current smokers.” (CDC, 2022)

When talking to teenagers about tobacco cessation, one must consider why they might want to try tobacco. Teenagers usually start smoking as a result of peer pressure. It may also be because it is the newest or latest fad, like e-cigarettes or "vape." Misinformation about the dangers of tobacco usage can be another reason, as seen in the rise in the popularity of hookah. Incorporating the child's support system into the cessation protocol can be very helpful. By refraining from tobacco use and keeping their homes smoke-free, parents may serve as positive role models for their children. Having a frank conversation about the dangers of tobacco is a great way to show them the respect and independence they crave while also informing them of the true nature of tobacco usage. As per the American Lung Association, "Only 5 percent of high-school-age smokers believe they will still be smoking five years after graduation, but they do not understand how difficult quitting can be." As such, it is essential to keep working with teenagers to stop and reduce the use of all forms of tobacco.

In its various forms, tobacco has been shown to be harmful in multiple ways. It has taken millions of lives on its way to becoming a global epidemic. Not only is it linked to multiple

cancers of various organs, but it is also linked to many cardiovascular and lung diseases. It can also affect the unborn child, through no fault of their own, causing complications during pregnancy and even the birth of a premature baby. The oral cavity is the primary risk factor for oral cancer and plays a role in conditions such as leukoplakia and periodontitis. It does not only affect us internally but externally too - causing skin changes such as sagging skin, wrinkles, and deep lines around the lips known as perioral rhytides. It also is a cause of discoloration and staining of teeth. One could also try to ascertain the financial burden associated with these products. We are not just talking about the costs of buying and supporting an addiction to tobacco products but also the high costs of treatment for those associated conditions and the burden on government assistance programs like Medicaid.

These conditions can be significantly reduced if not prevented using preventative strategies such as tobacco cessation. These protocols have been tried and tested, and their effectiveness has been well established. Using the recommended Five A's Model of Ask, Advise, Assess, Assist and Arrange, we can refer patients to Quitlines, which can impact success significantly. Thus as dental hygienists, we can have a far-reaching lifelong impact on our patients.

## **Reflection**

This assignment was an eye-opener to the real-world damages that tobacco, in its various forms, can cause. I, unfortunately, have a family history of heart conditions, so I was always aware of the dangers of smoking and its addictive properties. Still, reading and researching this topic in greater detail shone an even brighter light. The numbers are shocking! The number of conditions linked to it is constantly growing; unfortunately, so are the associated deaths. It is bad enough that this “poison” is legal and freely available in so many ways for a person to “enjoy,” but to make matters worse - all those deaths and illnesses are highly preventable!

However, every cloud has a silver lining - and here it falls, Tobacco cessation. Reading about the cessation protocols, the 5 A's, the Quitlines, and how effective they are ( triple the success rate ! ) has given me invaluable insight into this topic. Knowing what I know now about the dangers of tobacco products and how successful cessation protocols can be - I plan on being a very vocal advocate for it with my patients.

I have always been comfortable talking to anyone. I am the most talkative at work, sharing a rapport with many patients and their parents. While I never feel like I do not have something to talk about, this assignment and associated research has given me another topic and the tools to discuss. After all, nothing ventured, nothing gained. What is the worst that can happen by asking if a person wants to quit smoking - my advice falls on deaf ears. Nevertheless, if even one person goes on to listen and asks for more information, or I can refer them to a quitline, then I would have achieved something that would have a far-reaching impact on that person's life - and that is well worth the effort.



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