Hookah: Popularity, Use, and Risks

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Introduction

Tobacco use is the leading cause of preventable death in the United States (U.S.) killing more than 480,000 people per year.\textsuperscript{1} Although, steady decreases in smoking rates in the U.S. have been noted, there has not been a significant decrease in recent years.\textsuperscript{2} This could be due to emerging tobacco products, such as hookahs (Figure 1), becoming increasingly popular.\textsuperscript{3,4} Due to increasing popularity amongst adolescents and young adults in the U.S., hookah use has become an area of concern in the Paso del Norte region.

| Figure 1. Modern Hookah Device |

In 2010, the U.S. Surgeon General published a report titled, \textit{How Tobacco Smoke Causes Disease: The Biology and Behavioral Basis for Smoking-Attributable Disease}.\textsuperscript{5} The report concluded nicotine to be as addictive as cocaine and heroin.\textsuperscript{5} The nicotine content in hookah smoke has been found to be two times greater than conventional cigarettes.\textsuperscript{6} Similar to cocaine and heroin, nicotine leads to a physical dependence and causes withdrawal symptoms.\textsuperscript{7} The highly addictive quality of nicotine and high nicotine content found in hookah is cause for concern since hookah smokers may become quickly addicted. These addictive qualities are concerning especially due to the increase of hookah popularity among younger populations.

Hookah use in adolescents

Although cigarette use among adolescents is declining, the use of alternative tobacco, products is increasing.\textsuperscript{8,9} Specifically, 9.4\% of high school students in the U.S. reported using
hookah,\textsuperscript{8} meanwhile 41.2\% reported knowing about hookah.\textsuperscript{10} Among middle school students, 4\% reported using hookah.\textsuperscript{11} Additionally, Hispanics have reported higher rates of hookah use when compared to other ethnicities.\textsuperscript{12,9} These rates are alarming since nicotine is highly addictive and hookah smoke has detrimental effects on health.\textsuperscript{13} Reviews on hookah’s health effects and the addictiveness of nicotine have found that hookah is not less addictive\textsuperscript{14,15} or less harmful than cigarettes.\textsuperscript{16,17,18} Despite these findings, hookah users perceive hookah as less harmful and less addictive.\textsuperscript{19} This could be due to the tobacco industry promoting hookah as less harmful.\textsuperscript{20}

Similar to electronic cigarettes, hookah is less regulated than cigarettes and is appealing to adolescents because of its flavors.\textsuperscript{21,22} For example, flavored tobacco often used in hookah, helps disguise the harsh flavors of tobacco and gives the user a sense of safety.\textsuperscript{22} This compliments research that reports hookah as adolescent’s first tobacco product\textsuperscript{21}; thus, describing hookah as an initiation product. Additionally, past hookah use is associated with positive beliefs and intentions to use conventional and alternative tobacco products.\textsuperscript{21,12} For adolescents who have ever tried hookah, 43\% have ever tried electronic cigarettes and 22\% reported being current electronic cigarette users.\textsuperscript{21}

**Hookah use in young adults**

A major concern of hookah use is that it is often perceived as a safer alternative to traditional cigarettes. Theory of planned behavior emphasizes the importance beliefs, attitudes, and social norms are to behavior.\textsuperscript{23} In the context of smoking, subjective attitudes and beliefs about smoking lead to engaging in smoking behavior. Common misconceptions observed in college aged individuals include perceptions of hookah being less harmful, less addictive, and containing lower levels of nicotine.\textsuperscript{24,25} Furthermore, college students report hookah use as more
socially acceptable compared to cigarette smoking. Research has shown an association between low perceived harm, low addictiveness, and high social acceptability to hookah use. Therefore, these misconceptions about the safety of hookah lead to the initiation of hookah use among college students.

In addition, college students are at a unique developmental period which makes them more susceptible to engaging in risky behavior. In a comprehensive assessment of hookah use among college students in an urban Midwestern university, researchers found that 50% of participants had tried hookah, 22% had used hookah in the past 30 days, and 13% had future intentions to try hookah. The initiation of hookah use begins between the ages of 17-19. This age range coincides with the traditional college student age range (18-22). A study by Allem & Unger assessed emerging adulthood themes and its relationship to hookah use among a sample of college students. Findings from this article highlight the vulnerability of college students. Participants who believed emerging adulthood (18-25 years old) was a time for experimentation were more likely to report hookah use. Given that these attitudes and subjective norms may lead to hookah use, efforts should be made to inform young adults of the health detriments of hookah smoking.

Conclusion/Summary

The present paper summarized findings on the harms of hookah use, the use of hookah in adolescents and young adults, and contributing factors of initiation of hookah use. As discussed above, the exposure to nicotine and other chemicals were present in hookah bars. In a study by Kassem et al. researchers examined the effects of hookah use in homes with children. Researchers found that the children living in the homes showed levels of nicotine and other
known carcinogens. These findings also highlight the associations of hookah use in later life among individuals who lived with parents that also smoked hookah. Furthermore, social norms and perceptions were important factors in hookah use. Adolescents and young adults showed lower perceived harms of hookah use and high social acceptability of use. Both of these factors influence hookah use. Therefore, addressing these individual beliefs is crucial for prevention efforts. Conversely, media campaigns have focused primarily on youth prevention and cessation of traditional cigarettes. However, given the increase in use of novel tobacco products such as hookah, the development of campaigns that address hookah use in both adolescents and young adults are warranted. In conclusion, for healthcare professionals it is important to assess patients’ tobacco use, to include hookah, at every visit and promote cessation resources available such as 915-534-QUIT or www.smokefreepdn.org.
References


