The purpose of this research was to investigate hookah smoking among college students and the psychosocial correlates of hookah use are poorly understood (Heinz et al. 2013). Little is known about factors associated with hookah smoking in this population.

**Background**

Young adulthood is a critical time for developing lifelong healthy habits. Although cigarette use has declined, hookah (waterpipe) use among youth is rapidly increasing in prevalence, with 10-20% of US adolescents and young adults reporting use in the previous month. Health risks are similar to cigarette smoking yet hookah is perceived as safer and healthier. Hookah smoking is typically a social behavior practiced in the company of friends and peers, with the number of hookah cafes proliferating in recent years. Perceptions among youth that hookah is natural and less harmful than cigarette smoking persist regardless of evidence that it is detrimental to their health. Misconceptions present a risk to youth who are unaware of potential consequences. Little is known about factors associated with hookah smoking in this population.

**Methods**

A descriptive correlational research design was implemented. A convenience sample of 80 youths ages 18-24 were given information about the study. Of the 80 invited to participate, 74 youths returned completed packets, including a socio-demographic form, a Hookah Questionnaire, and the Brief Sensation Seeking Scale. Data was collected in 2015 and analyzed using SPSS v.22.

**Design**

Sensation Seeking Scale: an eight item tool measured along a five point Likert scale was used to assess the level of sensation seeking among subjects. Hookah Questionnaire: 43 item self-administered tool assessing hookah smoking behaviors, perceptions, attitudes, normative beliefs and norms.

**Analysis**

Participant characteristics were summarized using descriptive statistics. Bivariate analyses were conducted comparing current hookah users versus nonusers using independent samples t-tests. Pearson’s correlations were computed to determine relationships between study variables.

**Results**

- The majority of the participants were female (n=58, 78.4%); mean age was 21 (SD=1.38).
- 54.8% were Caucasian, 16.4% Hispanic, 15.1% African American, 13.7% Asian American.
- 66.7% of the participants reported ever using hookah.
- 6.8% reported use during the previous month.
- Males and females reported lifetime use at similar rates (67.2% male, 68.8% female).
- Hookah users reported lower perceived harm (t=-3.190, df=72, p=.001), more positive attitudes (t=2.146, df=72, p=.035), identified more friends who smoked hookah (t=4.959, df=35, p=.000), reported higher approval among peers (t=2.652, df=64, p=.01), lower knowledge (t=-3.394, df=39, p=.002) and greater sensation seeking (t=4.622, df=72, p=.000).
- Correlation analysis demonstrated relationships between frequency of hookah use and perceived harm (r=.346, p=.003), number of friends smoking hookah (r=.617, p=.000), approval by peers (r=.523, p=.000), knowledge (r=-.368, p=.001) knowledge and harm (r=-.671, p=.000) and sensation seeking (r = .44, p = .000).
- Hookah smokers reported numerous environmental and social contexts.
- 44% Sometimes or always smoked in a hookah bar, 19% reported smoking at home sometimes or always, 82% rarely or never smoked at home.
- 64% of users reported that they sometimes or always smoked with friends; 98% reported that they never or rarely smoked alone.

**Discussion**

The current study examined hookah use among a sample of youth ages 18-24. Although research has demonstrated that hookah use can be addictive and harmful, approximately two-thirds of the participants reported having tried hookah, and nearly 7% had used it in the previous month.

Significant differences were identified between hookah users and non-users in their perceptions, attitudes and beliefs. In comparison to non-users, hookah smokers perceived hookah to be less harmful than smoking cigarettes, found it to be a more acceptable practice than smoking, had more friends engaging in the practice, and had higher scores on the sensation seeking scale.

Hookah use frequency, perceptions of harm, normative beliefs, subjective norms and sensation seeking were all found to be correlated. Frequency of use had a negative correlation with perceptions of harm and positive correlations with the other variables. Strong positive relationships were identified between the frequency of hookah use, normative beliefs, subjective norms and sensation seeking. Normative beliefs were strongly correlated with subjective norms, indicating a relationship between peer practice and beliefs of social desirability.

**Conclusion**

Findings contribute to the knowledge base regarding the practice and perceptions of hookah smoking in this population. The significant differences found between smokers and non-smokers in perceptions of harm, acceptability, normative beliefs, subjective norms and sensation seeking indicate a need for educating youth and identifying potential risk factors.

Correlations between frequency and perceptions underscore a need to consider psychosocial factors in research and implementation. This study can inform efforts to design effective strategies to reduce the likelihood of youths engaging in hookah smoking.

**References**

Available on request