

Knowledge, Attitude and Practice Regarding Hookah Smoking Among Nursing Students in Chitwan, Nepal: A Cross-Sectional Study

Namuna Thapa,^{1*} Babita Ghimire,¹ Hari Prasad Upadhyay²

¹Shree Medical and Technical College, Bharatpur, Chitwan Nepal, ²Department of Statistics, Birendra Multiple Campus, Bharatpur, Chitwan Nepal.

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Correspondence:

*Namuna Thapa, Shree Medical And Technical College, Bharatpur, Chitwan Nepal
Email: namsuthapa1993@gmail.com
m. Phone: +977-9845043809

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ABSTRACT

Background: Tobacco smoking is a leading preventable cause of mortality and morbidity around the world. The objective of this research was to find the level and factors associated with knowledge, attitude, and practice regarding hookah smoking among nursing students.

Methods: A cross-sectional analytical study was conducted among 373 bachelors of nursing students using a non-probability enumerative sampling technique. Collected data were entered into Statistical Package for the Social Services version 20. Data were analysed by using descriptive and inferential statistical tools.

Results: Out of 373 students, 52.3% of them were found to have inadequate knowledge, 53.4% had a positive attitude about hookah smoking, and 30.6% of students used to smoke a hookah. There was a significant statistical association between levels of attitude regarding hookah smoking with family monthly income and family history of hookah smoking.

Conclusion: The majority of students have inadequate knowledge and have a positive attitude, while practices of hookah smoking are high.

Keywords: attitude; hookah; knowledge; practice; students; tobacco.

INTRODUCTION

Tobacco smoking is a leading preventable cause of mortality and morbidity around the world. The proportion of death-related tobacco is anticipating to rise from 6.4 million in 2015 to 8.3 million in 2030.¹ Every year, more than 8 million people die from tobacco use.² Hookah smoking is a form of tobacco consumption that utilizes a single or multi-stemmed instrument to smoke flavored or non-flavored tobacco, where smoke is designed to pass through water or other liquid before reaching the smoker.³ Hookah is also known as a water pipe, narghile, shisha, hubble-bubble around the world.⁴ Hookah consists of tobacco; thus, it consists of a similar noxious substance as cigarette smoking containing huge concentrations of nicotine, carbon monoxide (CO), 'tar'.⁵ Hookah smoking has been associated with lung cancer, respiratory diseases, low birth weight, periodontal diseases.⁶ The prevalence of current hookah smoking among university students was high in the Arabic Gulf region (6%), United Kingdom (8%), United States (10%), Syria (15%), Lebanon (28%), and Pakistan (33%). It is markedly indicated that hookah smoking is increasing among university students.⁷ In Nepal, different varieties of tobacco smoking products are used among them hookah smoking has become fashionable among health care students. Health care students play an important role in the health care sector because they are the practitioner of tomorrow who should be the role model, are spoiling in the

hookah use which may pass the wrong information to the public. As per the researcher's knowledge, the researcher did not find any research to assess knowledge, attitude, and practice of hookah smoking in Chitwan, Nepal. So, the researcher is interested to conduct this study.

METHODS

An analytical cross-sectional study was conducted among bachelors of nursing students of Shree Medical and Technical College (SMTC), Nepal Polytechnique Institute Narayani Samudayik Hospital and College of Medical Sciences-Teaching Hospital, Bharatpur-10, Chitwan using a non-probability sampling technique. Ethical approval was taken from institutional review committee of Shree Medical and Technical College (Ref: SMTC-IRC-20201012-3). Inform and written consent was taken from all students. Data entry and analysis was done using SPSS version 20. Data was analysed using descriptive and inferential statistics. In the descriptive statistics for categorical variable frequency and percentage while for continuous variable mean and standard deviation. In the inferential statistics to find the association chi square test. P-value <0.05 was considered as statistically significant.

RESULTS

A total of 373 students participated in this study. The mean age of the respondents was 22.4 years

(Standard Deviation (SD) ± 2.3), and most (49.9%) were of age group 21-23 years, (85%) were unmarried and 56 (15%) were married. (Table 1).

Table 1. Sociodemographic information.

Variables	Frequency (%)
Age (Years)	
18-20	81(21.7)
21-23	186(49.9)
≥ 24	106(28.4)
Mean \pm SD=	22.42 \pm 2.39363
Religion	
Hinduism	337(90.3)
Buddhism	32(8.6)
Christianity	4(1.1)
Ethnicity	
Dalit	5(1.3)
Janjati	93(24.9)
Madhesi	5(1.3)
Brahmin/Chhetri	270(72.5)
Marital Status	
Married	56(15)
Unmarried	317(85)

Level of knowledge regarding hookah smoking among university students, over half of the students one hundred ninety-five (52.3%) had inadequate knowledge whereas one hundred seventy-eight (47.7%) had adequate knowledge are shown in Table 2, followed by a level of attitude regarding hookah smoking among nursing students, one hundred ninety-nine (53.4%) had a positive attitude while one hundred seventy-four (46.6%) had a negative attitude (Table 2).

Table 2. Level of knowledge and attitude.

Levels	Frequency (%)
Level of Knowledge	
Adequate	178(47.7%)
Inadequate	195(52.3%)
Level of Attitude	
Positive	199(53.4%)
Negative	174(46.6%)

About one hundred fourteen (30.6%) of the respondents who smoked hookah. Similarly, out of 114 students, 59 (51.8%) were found to be current hookah smokers. Age at the first started of hookah smoking was most of the students 80(70.2%) were of age group 19-23 years. Fourteen years was the lowest reported age at first started hookah. A pleasure was cited as the main reason for hookah smoking for a majority of students (50.9%). Most of the students, ninety-six (84.2%) prefer to smoke hookah with friends (Table 3). Likewise, it also presents Cafés or restaurants as the favourite places for hookah smoking for the majority of students

(91.2%). There was a significant statistical associa-

Table 3. Practice towards smoke hookah.

Variables	Frequency (%)
Smoke hookah	
Yes	114(30.6)
If yes, hookah smoking status (n=114)	
Ever	55(48.2)
Current	59(51.8)
Age of first started hookah smoking (n=114)	
14-18	21(18.4)
19-23	80(70.2)
24-28	13(11.4)
Companion at first to use to smoke hookah (n=114)	
With Friends	103(90.4)
With Parents	8(7)
Alone	3(2.6)
Place when you first hookah smoking (n=114)	
Cafe or Restaurant	110(96.5)
Home	4(3.5)
Influencer for smoking hookah (n=114)	
Friends	92(80.7)
Siblings	18(15.8)
Advertisement	4(3.5)
Reasons for starting hookah smoking	
Pleasure	58(50.9)
Peer pressure	43(37.7)
Stress relieving	11(9.6)
Entertainment	2(1.8)

tion between the level of attitude regarding hookah smoking with family monthly income (p-value=0.002) and with a family history of hookah smoking (p-value=0.001) (Table 4).

DISCUSSION

The major findings of the study are discussed with the comparison of findings of the relevant studies survey reports and other documented literature. This study reported that 52.3% had inadequate knowledge about hookah smoking. Our findings are similar to findings from studies in the US which found 55.8% of respondents had inadequate knowledge about hookah smoking.⁸ Similar findings were reported in other studies conducted in Pakistan where respondents reported having insufficient knowledge of hookah smoking. Similarly, Our findings are similar to findings from studies in Georgia which found students didn't know the harmful effects of hookah smoking i.e. haematological impairments, diarrhea.¹⁰ However, Students can identify major effects of hookah smoking such as respiratory problems, cancer, cardiovascular impairments. These findings are reliable with the finding of Pakistan where students were able to identify the

Table 4. Association between level of knowledge, Attitude with sociodemographic variables.

Variables	Level of Knowledge			Level of Attitude		
	Adequate	Inadequate	p-value	Positive(%)	Negative(%)	p-value
Age (years)						
≤20 years	46(23.6%)	35(19.7%)	0.358	33(19.0%)	48(24.1%)	0.228
> 20 Years	149(76.4%)	143(80.3%)		141(81.0%)	151(75.9%)	
Religion						
Hinduism	178(91.3%)	159(89.6%)	0.523	162(93.1%)	175(87.9%)	0.092
Others than	17(8.7%)	19(10.4%)		12(6.9%)	24(12.1%)	
Ethnicity						
Brahmin/Chhetri	138(70.8%)	132(74.2%)	0.465	127(73.0%)	143(71.9%)	0.808
Other	57(29.2%)	46(25.8%)		12(27.0%)	91(28.1%)	
Marital Status						
Married	24(12.3%)	32(18.0%)	0.126	30(17.2%)	26(13.1%)	0.260
Unmarried	171(87.7%)	146(82.0%)		144(82.8%)	173(86.9%)	
Academic Year						
BN	76(39.0%)	83(46.6%)	0.135	69(39.7%)	90(45.2%)	0.278
B.Sc. Nursing	119(61.0%)	95(53.4%)		105(60.3%)	109(54.8%)	
Father Occupation						
Services	80(41.0%)	70(39.3%)	0.103	68(39.1%)	82(41.2%)	0.712
Business	110(56.4%)	95(53.4%)		96(55.2%)	109(54.8%)	
Others	5(2.6%)	13(7.3%)		10(5.7%)	8(4.0%)	
Mother Occupation						
Services	38(19.5%)	46(25.8%)	0.330	38(21.8%)	46(23.1%)	0.061
Business	57(29.2%)	46(25.8%)		58(33.3%)	45(22.6%)	
Housewife	100(51.3%)	86(48.4%)		78(44.9%)	108(54.3%)	
Family Income per month						
≤100000	177(90.8%)	168(94.4%)	0.186	153(87.9%)	192(96.5%)	0.002
>100000	18(9.2%)	10(5.6%)		21(12.1%)	7(3.5%)	
Whom do you live with						
Family	182(93.3%)	169(94.9%)	0.510	166(95.4%)	185(93.0%)	0.319
Others	13(6.7%)	9(5.1%)		8(4.6%)	14(7.0%)	
Family history of hookah smoking						
Yes	24(12.3%)	22(12.4%)	0.988	142(81.6%)	185(93.0%)	0.001
No	171(87.7%)	156(87.6%)		32(18.4%)	14(7.0%)	

following health hazards that might result from hookah smoking; respiratory problems (72.7%), cancer (53.3%).¹² The study finds no statistical association between the knowledge of hookah smoking and sociodemographic variable. This is in contrast to studies that were conducted in Princess Norah University, Saudi Arabia that found an association between age and knowledge toward hookah smoking.¹³ Regarding attitudes towards hookah smoking, this study finds 53.4% of the students have a positive attitude. Our findings are similar to findings from studies in Pakistan which found most of the students supported the banning of hookah at the workplace and among minors (<18 years).⁹ However, our findings are different from the findings of a study conducted in Kenya, where the majority of the students had a negative attitude towards hookah.¹⁴ The study finds a statistical associ-

ation between the attitude of hookah smoking with family income and with a family history of hookah smoking. This is in contrast to studies that were conducted in Saudi Arabia that found an association between age and attitude toward hookah smoking.¹³ In this study, the percentage of hookah smoking among the students is 30.6% among them 51.8% of them are current smokers, which is more than in a study conducted at King Saud University in Riyadh, that showed 18.9% of the students smoked hookah at least once during their lifetime.¹⁵ Similarly, a study carried out in Princess Norah University that revealed 15.4% students smoke hookah and 27.5% of them are current smokers.¹³ Our study average age of starting hookah smoking is 14 years, which is similar to findings from Karachi which found a mean starting age of 14 years among adolescent hookah smokers.¹⁶ These findings show that

hookah smoking is becoming more popular among adolescents. A supported finding whose study occurred in Pakistan indicated that students were with their friends 77.6% or in a cafe or restaurant 64.7% when they tried hookah smoking for the first time.¹² Likewise majority students were with friends (65.7%) or in a cafe or restaurant (26.9%) when they first used a water pipe to smoke tobacco.¹¹ In our study 80.7% of friends are an influencer for smoking hookah. Majority of students 50.9% in our study reported that pleasures are the main reasons for starting hookah. The studies carried out in Iran showed that curiosity and pleasure-seeking were the main reasons for their hookah smoking habit.¹⁸ Cafés or restaurants are the favorite places for shisha smoking in our study. This result is similar to studies in Pakistan and Saudi Arabia.^{16,19} Most of the students in our study used to share the same

hookah pipe with others which are similar findings from studies in Pakistan.⁹

CONCLUSIONS

In conclusion, the majority of the students are found to have inadequate knowledge and a positive attitude towards hookah smoking. Similarly, the percentage of hookah smoking is high. Increased surveillance, additional research, awareness program, and strict policies to reduce the rate of hookah smoking used are necessary to address this growing threat to public health.

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