

Factors Affecting Use of Tobacco among Higher Secondary Students of Kalimati, Kathmandu

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ABSTRACT

Background: Tobacco products are products made entirely or partly of leaf tobacco as raw material, which are intended to be smoked, sucked, chewed, or snuffed. Tobacco use, among the adolescents is a growing public health problem the world has ever faced. More than 7 million deaths occur from tobacco use every day. Literature has shown that the prevalence of the tobacco uses was high among adolescents.

Methodology: A cross-sectional descriptive study design was used. 150 respondents were taken as sample size. Probability sampling technique and self-administered questionnaire modified from GYTS, Version 2011 was used as a research instrument. Analysis was done using SPSS version 16.

Findings: The study revealed that maximum 57.3% were male, majority 71.3% were from nuclear family, more than fifty 62.7% respondent's family uses tobacco products and majority 75.8% tobacco is used by the respondent's father. Majority 73.3% uses the hookah, more than half 64% gets tobacco from shop, and almost half 46.7% initiated tobacco product as experiment/curiosity and majority 74.7% uses in café. There is statically association found on frequency of tobacco used by the respondents with sex, residence of the respondent, time spend by the parents and initiated age of the tobacco. Greater strength of association on sex and initiated age of the tobacco use where lower strength of association on residence of the respondents and time spend by family.

Conclusion: About 15-20% of each higher secondary school students involve on the use of tobacco products. Gender, living place, time spend by the parents, initiated age of tobacco use, increase café cultural, easy availability and accessibility were the common factors for the use of tobacco among higher secondary students. So buying and selling tobacco products everywhere must be prohibited and adolescents should be restricted to use tobacco products in café or public places.

Keywords: Tobacco, Higher Secondary Students, Factors

INTRODUCTION

Tobacco products are products made entirely or partly of leaf tobacco as raw material, which are intended to be smoked, sucked, chewed, or snuffed. All contain the highly addictive psychoactive ingredient, nicotine (WHO, 2017). According to the Surya Private Limited, the Nepal produces approximately 2.20 million kilogram of cigarettes tobacco. In Nepal, both the smoke and smokeless forms of tobacco are manufactured and available.

The smoke tobaccos which are manufacture and available in Nepal are surya, khukuri, pilot, surya light, shikhar. Not only that marlbolo, black, cigar, vape, is also available in Nepal. The smokeless form of tobacco manufactured and available in Nepal are gutkha, pan masala, sudha plus, current plus, pan gandha, pan parag, super like etc. The tobacco has adverse effect in health at any ages. According to the WHO report on global tobacco epidemic (2017), the current tobacco user among adolescent

male is 9.5%, female is 4.8% whereas use of current smokeless tobacco among male is 19.7% and female is 12.9%.

The tobacco epidemic is one of the biggest public health problems the world has ever faced. More than 7 million deaths occur from tobacco use every year. This figure is predicted to grow more than 8 million a year by 2030 without intensified action (Uprety, Regmi, & Lamichhane, 2017).

Major consequences of smoking are not manifested until three to four decades after the onset of persistent smoking. The prolong use of tobacco causes the non-communicable disease such as cancer, lung disease. In U.S nearly 40 million adults still smoke cigarettes while 4.7 million middle and high school students use at least one type of tobacco product electronic cigarettes (CDC, 2017).

A study done in Bangladesh describes that the associated factors to initiate tobacco use is due to peer pressure while the prevalence rate of tobacco smoking is 68.8% in male and 19.56% is female (Sahadat et al., 2017). Another study done in Bhopal city of India shows that the associated factor to initiate tobacco use is experimental/curiosity which is 55.2% (Bathamet., 2016). Similarly another study conducted by (Chezhian, 2015) in India found that the factors influencing tobacco use was due to surrounding influence 44%, stress 42% and fun 40%.

In Nepal, the prevalence of tobacco smoking among persons 15 years and older is 11% in female and 37% in male in 2016. The percent of female tobacco smokers decreased from 26% while the male smokers have increased from 36% and the total of 16.2% youth and 17.8% adults use smokeless tobacco in Nepal (Uprety, Regmi, & Lamichhae, 2017).

MATERIALS AND METHODS

This was a cross-sectional descriptive school based study conducted in private higher secondary school to assess

the factors affecting use of tobacco among higher secondary students.

Study Population

This study has included only the tobacco users of grade 11 and 12 of private higher secondary schools of Kalimati, Kathmandu.

Study Area

Private higher secondary school of Kalimati ward no.13. Kalimati area is one of the busy area which lies inside the Kathmandu Metropolitan City. There are 14 wards inside the Kathmandu Metropolitan City.

Sample Size

150 student of grade 11 and grade 12.

Inclusion criteria:

This study was done among the smoker students of grade 11 and grade 12 of selected private schools of Kalimati ward no 13.

Students who were interested to participate in the study.

Exclusion criteria:

Those who were nonsmoker.

Those students who were not interested to participate in the study.

Those students who were absent on the day of data collection.

Data Collection Tools and Technique

The data was collected by using the semi-structured self-administered questionnaire modified from Global Youth Tobacco Survey of version 2011.

Ethical Consideration

- The research was conducted only after the approval from the research committee of Asian College for Advance Studies.
- Verbal and written consent was taken from the respected school prior to data collection and verbal consent was taken from the respondents.

- The objectives of the study were clearly informed to the respondents.
- The confidentiality of the data was maintained strictly.
- No any feelings, cultural and ethical values and norms were harmed during the study.

Analysis of data: SPSS software was used to analyze the collected data according to the objectives and data was presented in frequency percentage table.

Period of data collection: 2018 February 27th to March 14th.

RESULTS

The study revealed that at out of 150 respondents, majority 122(81.3%) lies in the age group of 15-18 years and 28(18.7%) lies in the age group of 19-22 years, mean age was 17 years. Maximum 86(57.3%) were male and more than half 64(42.7%) were female. All most all 94(62.7%) were from grade 11 and more than fifty 56(37.3%) were from grade 12. One third 49(32.7%) respondent's gets pocket money less than 200 and 19(12.7%) respondent's gets pocket money between Rs 600-800 per week. Majority 107 (71.3%) were from nuclear family and least 6(4%) were from extended family. More than fifty 82(54.7%) spends 6-8 hours with parents and less than fifty 68(45.3%) spends 1-5 hours with the parents, mean time spend by family was 5 hours. More than half 94(62.7%) respondent's family uses the tobacco products and almost half 56(37.3%) of the respondent's family doesn't use the tobacco products.

Out of 150 respondent, majority 114(76%) initiated between 13-17 years and minority 13(8.7%) initiated after 18 years. Two third 100(66.7%) are irregular user and one third 50(33.3%) are regular user. Majority 110(73.3%) uses hookah and least 5(3.3%) uses weed. More than half respondents 96(64.0%) gets the tobacco product from shop and least 12(8.0%) gets tobacco products from the street vendor. Majority 112(74.7%) uses tobacco product

in café and least 7(4.7%) uses tobacco product in friend's home. Almost half 76(50.7%) finds very easy to get the tobacco products and least 6(4%) finds fairly difficult to get the tobacco products. All 150(100%) feels no barriers to buy tobacco products. Around fifty 70(46.7%) initiated to use tobacco product as experiment / curiosity and least 1(0.7%) initiated to use tobacco product due to loneliness.

There are statically association found between sex and frequency of use of tobacco products, between living place of the respondents and frequency of use of tobacco products, between times spend by the parents and frequency of use of tobacco products and between initiated age of tobacco use with frequency of use of tobacco products.

Table 1. Age, Sex and Grade of the respondents, n=150

Age	Frequency	Percentage
15-18	122	81.3
19-22	28	18.7
Mean age= 17.53		
Sex		
Male	86	57.3
Female	64	42.7
Grade		
11	94	62.7
12	56	37.3

Above table shows that out of 150 respondents, majority 122(81.3%) lies in the age group of 15-18 years and 28(18.7%) lies in the age group of 19-22 years. Maximum 86(57.3%) were male and more than half 64(42.7%) were female. All most all 94(62.7%) were from grade 11 and more than fifty 56(37.3%) were from grade 12.

Table 2. Pattern of Family, n=150

Variables	Frequency	Percentage
Types of family		
Nuclear	107	71.3
Joint	37	24.7
Extended	6	4.0
Time spend by family		
1-5 hours	68	45.3
6-8 hours	82	54.7
Mean=5.51		

Above table shows that out of 150 respondent, majority 107(71.3%) were from nuclear family and least 6(4%) were from extended family. More than fifty 82(54.7%) spends 6-8 hours with parents and less than

fifty 68(45.3%) spends 1-5 hours with the parents.

Table 3. Tobacco Use Person in Family n=150

Tobacco use person in family	Frequency	Percentage
Father	75	75.8
Mother	7	7.1
Grandparents	24	24.2
Brother	3	3.0
Uncle	7	7.1

*Multiple responses

Above table shows that out of 150 respondent, majority 75 (75.8%) of the respondent's father uses tobacco products and least 3(3%) of the respondent's brother uses tobacco product. Table 8. Use of Tobacco by Friends.

Table 4. Type of Tobacco Use by Respondents, n=150

Types of tobacco use by respondent	Frequency	Percentage
Cigarettes	61	40.7
Hookah	110	73.3
Gutkha	12	8.0
Sudha plus	7	4.7
Weed	5	3.3
Vape	11	7.3

*Multiple responses

Above table shows that out of 150 respondents, majority 110(73.3%) uses hookah and least 5(3.3%) uses weed.

Table 5. Source of Tobacco Product and Place for Tobacco Use, n=150

Source of Tobacco Products	Frequency	Percentage
Shop	96	64.0
Street Vender	12	8.0
Friends	42	28.0
Place for Tobacco use		
Home	27	18.0
Public Places	4	2.7
Cafe	112	74.7
Friend's Home	7	4.7

Table 8. Factors Associated with Use of tobacco Products

Variables	Frequency of tobacco used by the respondents		x2/Odds Ratio	P-value
	Regular user n (%)	Irregular user n (%)		
Sex of the respondents	Male	45 (90%)	32.717/12.9	0.001
	Female	5 (10%)		
Residence of the respondents	Home	22 (44 %)	3.898/0.50	0.04
	Rent	28 (56%)		
Time spend by the parents	1-5 hours	13 (26%)	11.312/0.28	0.001
	6-8 hours	37 (74%)		
Initiated age of the tobacco	10-15 years	34 (68%)	15.549/4.1	0.001
	16-20 years	16 (32%)		

Above table shows that there are association between sex, living place of the respondents, times spend by the parents, and initiated age of tobacco with frequency of use of tobacco products, as p-value is < 0.05. There is greater strength (odds) of association found with sex (OR-12.9) and

Above table shows that out of 150 respondents, 96(64.0%) gets the tobacco product from shop and least 12(8.0%) gets tobacco products from the street vendor and majority 112(74.7%) uses tobacco product in café and least 7(4.7%) uses tobacco product in friend's home.

Table 6. Accessibility of the Tobacco Product, n=150

Accessibility of Tobacco Product	Frequency	Percentage
Very Difficult	20	13.3
Fairly Difficult	6	4.0
Fairly Easy	48	32.0
Very Easy	76	50.7

Above table shows that out of 150 respondents, almost half 76(50.7%) finds very easy to get the tobacco products and least 6(4%) finds fairly difficult to get the tobacco products

Table 7. Initiation Factor for Tobacco Use n=150

Initiation Factor for Tobacco Use	Frequency	Percentage
Per Pressure	33	22.0
Experiment/ Curiosity	70	46.7
Academic Failure	10	6.7
Stress	34	22.7
Fun	15	10.0
Employment	18	12.0
Style	4	2.7
Loneliness	1	0.7

*Multiple responses

Above table shows that out of 150 respondents, around fifty 70(46.7%) initiated to use tobacco product as experiment/curiosity and least 1(0.7%) initiated to use tobacco product due to loneliness.

initiated age of the tobacco (OR-4.1) on frequency of tobacco used by respondents. And lower strength of association found with residence of the respondents (OR-0.50) and time spend by the parents (OR-0.28) on frequency of tobacco used by the respondents.

DISCUSSION

The cross-sectional descriptive study was conducted to assess the factors affecting use of tobacco among higher secondary students. 150 respondents were taken as a sample. The outcome of this study shows that among total respondents, majority 122(81.3%) lies in the age group of 15-18 years and 28(18.7%) lies in the age group of 19-22 years. The mean age of study was 17.53. More than half 86(57.3%) were male and less than half 64(42.7%) were female because male have risk taking behavior higher in compare to female. Similar findings were found in the study conducted by Shrivastava et al., 2015 where majority 80.9% were male. This shows that there is a match between age and level of education. These age groups adolescences are mostly involve in gaining new experiences. This study shows that all most all 94(62.7%) were from grade 11 and more than fifty 56(37.3%) were from grade 12. More than fifty 82(54.7%) were Janjati, as Janajati includes multiple castes. One third 46(30.7%) were Chettri, 18(12%) were Brahmin and least 4(2.7%) were Muslim.

In this study, one third 49(32.7%) participant gets pocket money less than Rs 200, one fourth 40(26.7%) participant gets pocket money between Rs 200-300, 42(28%) participant gets pocket money between Rs 400-500 and 19(12.7%) participant gets pocket money between Rs 600-800 per week. Although they gets less pocket money they were involved on use of tobacco products. This finding is contrast to the research conducted by Shrivastava et al., 2015 where respondent pocket money was the major source of purchasing of tobacco products i.e. 57.1% In this study, majority 107(71.3%) were from nuclear family, one fourth 37(24.7%) were from joint family and least 6(4%) were from extended family. This study shows, more than fifty 82(54.7%) spends 6-8 hours with parents and less than fifty 68(45.3%) spends 1-5 hours with the parents. Since the respondents lives in nuclear family and does not spend maximum time with their parents

it shows, they gets enough time to take tobacco products. More than half 83% (55.3%) lives with their family, one third 31 35(23.3%) lives in rent with their friends, 31(20.7%) lives in rent with their family, and least 1(0.7%) lives in the hostel. Similarly, more than half 94(62.7%) participant's family uses the tobacco products and 56(37.3%) of the participant's family doesn't use the tobacco products. It shows that tobacco user in the family influences the use of tobacco products. Most 75(75.8%) of the respondent's father use tobacco products.

Present study shows, two third 100(66.7%) are irregular user and one third 50(33.3%) are regular user. Majority 114(76%) initiated between 13-17 years, 23(15.3%) initiated before 13 years and minority 13(8.7%) initiated after 18 years. The mean age of initiation is 15 years. The finding is contrast to the research conducted in the Bangladesh by Bathmat et al., 2016 where result showed that the age of initiation of tobacco use was 10 years. In this study, majority 130(86.7%) respondent friend uses the tobacco product and 20(13.3%) respondent friends don't use the tobacco product.

The current study shows that majority 110(73.3%) uses hookah less than fifty 61(40.7%) uses cigarettes, least 12(8%) uses gutkha, 12(4.7%) uses sudha plus, 11(7.3%) uses vape and 5(3.3%) uses weed. It shows increasing outgoing culture among adolescents. More than half 96(64.0%) gets the tobacco product from shop, 42(28%) gets the tobacco product from friends and least 12(8.0%) gets tobacco products from the street vendor. This finding is supported by the research conducted by P. Pradhan & Kalra, 2015, where 66% of the users purchased tobacco directly from shops. In this study, half 76(50.7%) finds very easy to get the tobacco products and least 6(4%) finds fairly difficult to get the tobacco products. In this study, total respondent (100%) stated that they feel no barriers to buy tobacco products. It shows that there is no any restriction on buying and selling

tobacco in our country. The current study shows, around half 70(46.7%) initiated to use tobacco product as experiment/curiosity, one fourth 33(22%) initiated due to peer pressure, 10(6.7%) initiated due to academic failure, 34(22.7%) initiated due to stress, 15(10%) initiated as fun, 18(12%) initiated as enjoyment, 4(2.7%) initiated as style and least 1(0.7%) initiated to use tobacco product due to loneliness. This finding is supported by research conducted by Hossain et al., 2015 where 48.3% initiated as curiosity.

In this study, majority 112(74.7%) uses tobacco product in café, 27(18%) uses tobacco product in home, 4(2.7%) uses in public places, and least 7(4.7%) uses tobacco product in friend's home. This finding is contrast to the research conducted by P. Pradhan & Kalra, 2015 where 36% consumed tobacco at home. As different varieties with different flavor tobacco are available in the café, so the respondent mainly uses tobacco products over there. The current finding shows that there is statistical association between sociodemographic variables with the frequency of the use of tobacco. This finding is supported by research conducted by Gaffar et al., 2013 where the result shows that there is association between the socio-demographic and tobacco smoking.

CONCLUSION

This study revealed that approximately 15-20% of the students from each higher secondary school use tobacco products. Although the respondents get pocket money less than Rs.200 per week, they still use tobacco products. The major tobacco product used by the student is hookah and the place for using the tobacco product is café. Nuclear family, less time of parents with their children, easily availability of the tobacco products, increase outgoing culture and gender are the major factors to the use tobacco products among higher secondary students. So buying and selling tobacco products everywhere must be prohibited and adolescents should be

restricted to use tobacco products in café or public places.

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