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## Prevalence of smoking among selected private university students of Bangladesh

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### ABSTRACT

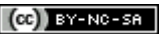
A descriptive type of cross sectional study was conducted to assess the prevalence of smoking among selected private university students of Bangladesh with sample size of 396. The students were aged between 18 to 32 years with mean age as  $24.42 \pm 1.630$ . Of them 92.2% were male, 52% were in joint family, 72.7% were single and the mean monthly family income was 84833.33 BDT. It was found that 26.3% respondents were studying in MBA, followed by 16.7%, 16.4%, 13.4%, 12.1%, 8.8%, 4.3% and 2.0% were studying in the department of BBA, Textile, CSE, EEE, Law, Pharmacy and others programs like English and MPH respectively. The prevalence of smoking among the respondents was 41.2% and the initiating age was 21-25 (mean $\pm$ SD= $22.62 \pm 7.79$ ) years. A little bit more than one-third of the respondents (34.6%) duration of continuous use of smoking were 6-10 (mean $\pm$ SD= $9.67 \pm 0.79$ ) years. It is found that 85.6% smoked  $\leq 5$  (times) cigarette per day with mean frequency per day was  $4.87 \pm 2.63$  times and nearly one third (31.3%) of the respondents were current smoker. Out of all 81.6% shared cigarettes with others like classmates, friends or roommates. It was also found that 42.7% influenced by peer pressure for smoking, followed by 18.4% smoked due to depression and stress, 15.4% for siblings and parental influence, 11.1% for relaxation, 9.6% for feeling maturity and 2.8% smoked for symbol of manliness. It was very remarkable that 90.9% respondents wanted to quit smoking. But it was desponded that only 14.4% received intervention to quit smoking and majority (85.6%) did not get it. The smoking cessation counseling, awareness creation program and warning on health hazards of smoking should be taken by government and proper authority of private universities in Bangladesh.

Key words: *Smoking, Smokers, Peer Pressure, Awareness, Cigarettes, Prevalence*

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## INTRODUCTION

Smoking is one of the leading causes of preventable death in world. In USA the prevalence of smoking among university students was 42% and low self-efficacy was detected as the most significant determinant of smoking behaviors. It has been found that 97.6%, 39% and 78% university students smoked in India, Pakistan and Nepal respectively. They smoked due to peer pressure, sibling and parental influence, depression and stress, weight loss as benefit of smoking and for fun and pleasure.<sup>1</sup> A study in Bangladesh showed that 22.1% of university students have smoking habit and it is increasing alarmingly due to avoid anxiety and tension, feeling of maturity, symbol of manliness and unhappy family environment.<sup>2</sup> Despite extensive recognition of the serious public health cost, the use of cigarettes and other tobacco products among university students appears to be sparse and the determinants are largely unknown. It is showed in many studies that young adult between 18-24 years were not fully aware of health penalty caused by cigarette smoking.<sup>3</sup> Syed MA found that using tobacco at a younger age increases the risk of using other drugs later.<sup>4</sup> Therefore smoking leads to the adolescent drinking alcohol, smoking marijuana, using cocaine, and other illicit drugs.<sup>5</sup> Another study found that prevalence of smoking among the teachers is high in Bangladesh. Half of the teachers smoked daily (48.4%). 34.7% school teachers smoked 6 to 10 sticks per day followed by 5.3% teachers smoked more than 20 sticks per day.<sup>6</sup> University life represents a major transition period for students because they are living away from

home and have to make lifestyle decisions regarding personal health without their parents. Students begin adopting unhealthy behaviors like smoking choices. This study finds out the prevalence of smoking among selected private university students of Dhaka City in Bangladesh with an aim to the impact, demographic and environmental factors for initiation and continuation of smoking behavior among private university students of Bangladesh.

## METHODOLOGY

It was a descriptive type of cross sectional study. Non-randomized convenience and purposive sampling method was applied, using a semi-structured questionnaire and face to face interview was performed for data collection from September 2015 to December 2015. Respondents were drawn a total of four private universities (American International University, Northern University, Presidency University and South East University) of Dhaka City. 396 students both honors and masters level (365 male, 31 female) age between 18-32 years were eligible to complete the questionnaire. Researcher explained the study to the students of each individual class day and available students were then invited to participate in the study. Written consent was obtained from each of those replying in the affirmative. Respondents confidentially were protected at all times. The collected data was edited by checking, cleaning and analyzing by using the software SPSS (20.0 version). The ethical clearance was taken by the registrar of concerned University.

## RESULTS

**Table 1: Distribution of respondents by socio-demographic characteristics (n=396)**

Variables	Frequency	Percentage
<b>Age (Years)</b>		
18-22	48	12.1
23-27	212	53.5
28-32	136	34.4
<b>Mean ± SD</b>	<b>24.42 ± 1.63</b>	
<b>Sex</b>		
Male	365	92.2
Female	31	7.8
<b>Types of family</b>		
Nuclear Family	142	35.9
Joint Family	206	52.0
Broken Family	48	12.1
<b>Monthly family income (BDT)</b>		
20000-40000	76	19.2
40001-60000	65	16.4
60001-80000	86	21.7
80001-100000	113	28.5
>100000	56	14.2
<b>Mean ± SD</b>	<b>84833.33 ± 21416.667</b>	

Study department		
BBA	66	16.7
MBA	104	26.3
EEE	48	12.1
CSE	53	13.4
Textile	65	16.4
Pharmacy	17	4.3
Law	35	8.8
Others	8	2.0

Table 2: Distribution of respondents by characteristics of smoking (n=396)

Variables	Frequency	Percentage
<b>Age of initiation of smoking (Years)</b>		
<15	24	6.0
15-20	152	38.4
21-25	163	41.2
26-30	57	14.4
<b>Mean ± SD</b>	<b>22.62 ± 7.79</b>	
<b>Duration of continuous use of smoking (Years)</b>		
≤ 5	96	24.2
6-10	137	34.6
11-15	78	19.7
16-20	85	21.5
<b>Mean ± SD</b>	<b>9.67 ± 0.79</b>	
<b>Number of cigarettes smoked per day (Times)</b>		
≤ 5	339	85.6
6-10	38	9.6
10+	19	4.8
<b>Mean ± SD</b>	<b>4.87 ± 2.63</b>	
<b>Currently using cigarette</b>		
Yes	124	31.3
No	272	68.7

Table 3: Distribution of respondents by sharing attitude, influenced and quite of smoking (n=396)

Variables	Frequency	Percentage
<b>Sharing attitude with others</b>		
Yes	323	81.6
No	73	18.4
<b>Reasons of influencing for smoking</b>		
Due to feeling maturity	38	9.6
Due to peer pressure	169	42.7
Due to siblings & parental influence	61	15.4
Due to depression and stress	73	18.4
Symbol of manliness	11	2.8
Due to relaxation	44	11.1
<b>Attitude to quit cigarette</b>		
Yes	360	90.9
No	36	9.1
<b>Getting intervention to quit smoking</b>		
Yes	57	14.4
No	339	85.6

## DISCUSSION

The mean  $\pm$ SD age of the respondents was 24.42 $\pm$ 1.63 years. Of them 92.2% were male, 52% were in joint family, 72.7% were single and the mean monthly family income was 84833.33  $\pm$

21416.667 BDT. An USA study found that gender is highly related to smoking, where males found the largest group of smoking with the prevalence rate of 8 percent, while among female it was near to 1 percent.<sup>7</sup>

It was found that 26.3% of the respondents were studying in MBA, followed by 16.7%, 16.4%, 13.4%, 12.1%, 8.8%, 4.3% and 2.0% were studying in the department of BBA, Textile, CSE, EEE, Law, Pharmacy and others programs like English and MPH respectively. It was also found that 46.7% respondents were in 5<sup>th</sup> to 8<sup>th</sup> semester, 34.9% were in 1<sup>st</sup> to 4<sup>th</sup> semester and remaining 18.4% were in 9<sup>th</sup> to 12<sup>th</sup> semester. This finding is almost similar to the study conducted on tobacco consumption among college students of University of Delhi in 2010 with age group of students varies from 17-28 years of which 87.9% were male.<sup>8</sup>

Study revealed that the prevalence of smoking among the respondents was 41.2% and the initiating age was 21-25 (mean± SD=22.62 ± 7.79) years. More than one-third (38.4%) initiated at the age of 15-20 years, 14.4% initiated at the age of 26-30 years and only 6% respondents initiated below 15 years of age. The mean age of initiation of smoking was found to be 22.62 ± 7.79 years. Study showed that a little bit more than one-third of the respondents (34.6%) duration of continuous use of smoking were 6-10 years, followed by 24.2% below or equal 5 years, another 21.5% 16-20 years and 19.7% 11-15 years. Overall mean length of smoking was 9.67 ± 0.79 years. Study found that 85.6% respondents smoked ≤ 5 (times) cigarette per day, 9.6% smoked 6-10 (times) cigarette and rest 4.8% smoked 10+ (times) cigarette per day. The mean frequency of smoking per day was 4.87 ± 2.63 times. Nearly one third of the respondents were current smoker and 68.7% of them did not practice it. Another study in Bangladesh showed that the age at the onset of smoking was 31.5 years. This was more or less similar with our study findings. Earlier initiation would be expected to increase the disuses burden by increasing smoking duration of lifetime exposure to carcinogens.<sup>9</sup> Most 323 (81.6%) of the respondents shared cigarettes with others like classmates, friends or roommates and 18.4% did not do it. Study found out the reasons of influencing for smoking. It found that 42.7% influenced by peer pressure for smoking, followed by 18.4% smoked due to

depression and stress, 15.4% for siblings and parental influence, 11.1% smoked for relaxation, 9.6% for feeling maturity and 2.8% smoked for symbol of manliness. It was very impressive sign that 90.9% respondents wanted to quit smoking but 9.1% did not want to quit smoking. But it was desponded that only 14.4% of them got intervention to quit smoking and majority (85.6%) did not get it. Lack of awareness and campaign contribute to the low percentage of respondents to quit smoking. But most of the respondents have a future plan to quit smoking as found from the study. The percentage of smoking who made an attempt to quit smoking in the past were low in Bangladesh (25%), India (35%) and Thailand (22%) (World Health Organization).

## Conclusion

Despite the clear evidence of the harmful effects of smoking, this study indicates a high prevalence of smoking cigarettes among private university students in Bangladesh, which can constitute a major public health problem in the future. In addition the initiation of smoking is very easy as it is acceptable and influenced by the society, family and peers. Smoking cessation counseling, awareness creation program and warning on health hazards of smoking should be taken by government and proper authority of private universities Bangladesh.

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