

# Patterns of Behavioural Changes Among Adolescent Smokers: An Empirical Study

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## Abstract

The descriptive type of cross sectional study was carried out among the 300 adolescent smokers selected by multistage random sampling from Tangail municipality and Dhaka north City Corporation areas of Bangladesh to observe the behavioural pattern changes of the adolescent smokers. Most of the respondents (56%) were between 17(+)-18 years of age. Several factors were involved in the addiction of smoking such as refusal of love and emotion (45%), friend incitements (32%), self curiosity (11%) and problems of the family (10%) and at the extended family members were the highest risk groups for smoking. Different types of behavioral changes observed due to smoking such as annoyed with others (24%), disobedient parents (32%) and dishonor to respectable people (28%). The rate of cigarette smoking was increased during gossiping time (35%) and 41% of the respondents received physical or mental dependency due to smoking and 28% of them were fatigue. Again, 50% of adolescents smokers were always feeling lonely where 26% said they had most harmful effects on study, 37% felt moderate condition and 9% felt harmless.

## Keywords

Adolescent Smokers, Behavioral Changes, Cigarette Smoking, Addiction Factors, Bangladesh

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## 1. Introduction

Bangladesh is a developing country with the population of 16 crore. Excessive use of tobacco is now a matter of concern in Bangladesh. Smoking is one of the familiar types of addiction. It has been observed in many studies that smoking cigarettes is both a mental and physical addiction [1]. Just someone have to fight the addiction of nicotine when quitting, it is just as important fighting the other habits of

addiction. These are different mental and physical effects that cigarettes offer if smokers quit smoking, they don't know what they will do with their hands instead [2]. Many people think they simply cannot live without smoking, as if cigarettes are a necessity to living. Usually tobacco contains nicotine, a drug that is addictive. The nicotine, therefore, makes it very difficult to quit. Although smoking is an addiction, people can quit smoking. Second hand smoking also has passive harmful effect. It is harmful to the health of children, family members and co-workers. There is a strong

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correlation between smoking and lung cancer, heart disease, stroke and respiratory disease has been observed in many research works. So quitting smoking cuts the risk of lung cancer, heart disease, stroke and respiratory diseases [3]. The steps in quitting, each of which requires special attention and efforts by the smoker, are getting ready to quit, quitting, and staying quit. The signs of addiction to cigarettes include: Smoking more than seven cigarettes per day and inhaling deeply and frequently [4, 5]. Cigarette smoking is also found to be associated with various cancers, such as, cancer of larynx, oral cavity, bladder, stomach, pancreas etc. in both men and women [6-8]. It has also been reported to be the major cause of chronic obstructive lung disease (cold), that is, chronic bronchitis and emphysema. Depending upon the extent of smoke exposure, male cigarette smoker's experience from 4 to 25 times higher mortality secondary to chronic obstructive lung disease compared with non-smokers. Cigarette smoking is also found to be associated with an increased incidence of respiratory infection and deaths from pneumonia and influenza [9]. Cigarettes are filled with poison that goes into the lungs when it is inhaled. Coughing, dizziness, and burning of the eyes, nose, and throat are early signs of smoking. Smoking increases health risks if somebody has diabetes, high blood pressure, or high blood cholesterol. Smoking can also cause fertility problems and can impact sexual health in both men and women. Large number of epidemiological studies has shown strong association between cigarette smoking and several diseases [10-14]. A strong positive association has been observed between cigarette smoking and the risk of cardiovascular disease morbidity and mortality in men and women under 65 years of age [15, 16] found male smokers at three times the risk of heart disease compared with non-smokers. Cigarette smoking is now considered to be the most important modifiable coronary heart disease (CHD) risk factor, acting both independently of and synergistically with other CHD risk factor. Further, cigarette smoking is the most powerful risk factor for atherosclerosis. One possible mechanism for a long term effect of smoking on cardiovascular disease is the atherogenic impact of tobacco smoke on plasma lipid and lipoproteins [17-20]. The smoking prevalence in Bangladesh as of 2004 is 41% among men aged 15 years and over (50.1% among men aged 30 years and over). In women it is 1.8% among those aged 15 years and over (3.1% among women aged 30 years and above). In addition, 14.8% men 15 years and above (22.4% of men 30 years and above), and 24.4% of women 15 years and above (39% of women 30 years and above). Altogether 62% of men and 41% of women (52% sex combined) aged 30 years and above were found to either smoke or chew tobacco at the time of survey. The prevalence of eight tobacco-related diseases among the

people aged 30 and above was found to be 9% and 41% of them are attributable to tobacco [20]. Tobacco-related illness accounted for 16% of death in Bangladesh among people aged 30 years and above. More than half of this death toll could be attributed to tobacco usage. It was estimated that those who die from these illness lose 17 years of life average, some of which are working years. In 2007, WHO estimated tobacco-related illness impose a cost of 110 billion BDT on the economy, of which 50.9 billion taka can be attributed directly to tobacco usage. Keeping all the views in mind the present work was undertaken to report the behavioural pattern changes of the adolescent smokers and their nutritional status. Therefore, the current study was conducted to assess the behavioral pattern changes of the adolescent smokers in Bangladesh.

## 2. Framework

The study was a descriptive cross-sectional study conducted at purposively selected Tangail municipality and Dhaka north City Corporation areas in Bangladesh. There were taken a sum of 300 adolescent smokers from the stated sampling areas by multistage (random) sampling method for continuation of the study in full swing. A well-structured questionnaire was developed containing both the open and closed ended query along with observation to collect data interviewing the respondents in the study areas. The gained collected data was checked and further rechecked far away from the sample areas. The questionnaire was formed in order to gain the relevant information considering the dependent variables i.e., age group, level of education, residency, socio-economic contour and independent variable i.e., behavioral changing patterns during March 2013 to February 2014. The questionnaire was checked daily closing the field work, rechecked again after collecting all data and coded before entrancing into the computer technology. The data was edited if seeing any discrepancy (wrong entry, doubt entry etc.) and the data was processed to undergo statistical analysis using SPSS 16 windows program. Microsoft Word and Microsoft Excel were taken into consideration to focus the results using tabular, graphical and chart icon.

## 3. Findings

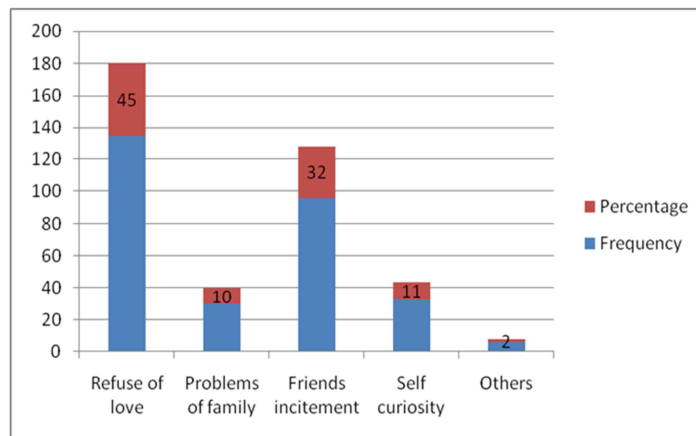
It was observed that most of the respondents (56%) were between 17(+)-18 years of age while 72.33% have completed higher secondary level and 32.66% adolescent had income, among them 42.86% earned more than BDT 5,000 monthly and 74% had more than 7 members in their family (Table 1).

Figure 1 shows that 45% adolescents smoke because of refusal of love, 10% for family problems, and 32% by

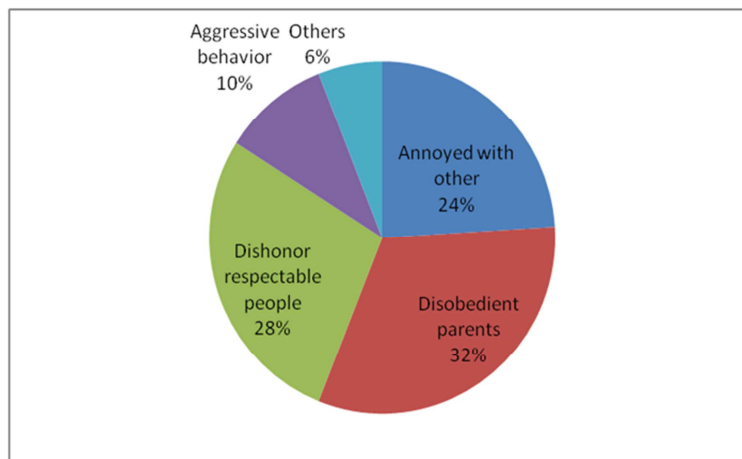
friends' incitement and 11% for self courtesy.

**Table 1.** Socio-demographic characteristics of the respondents (N=300).

Parameters	Frequency	Percentage
Age (years)		
13-14	18	6.00
14(+)-15	27	9.00
15(+)-16	33	11.00
16 (+)-17	54	18.00
17(+)-18	168	56.00
Level of education		
Illiterate	6	2.00
Primary	16	5.33
Secondary	61	20.33
Higher Secondary	217	72.33
Having income		
Yes	98	32.66
No	202	67.33
Monthly income (BDT)		
<2000	5	5.10
2000-3000	12	12.24
3001-4000	18	18.36
40001-5000	21	21.42
>5000	42	42.86
Family Size		
2-4	15	5.00
5-7	63	21.0
>7	222	74.0



**Figure 1.** Reasons for smoking.



**Figure 2.** Behavioural changes of the respondent due to smoking.

It was found that 32% adolescent smokers showed disobedient to their parents, 10% showed aggressive behavior, 24% annoyed with others and 28% dishonor respectable people (Figure 2).

**Table 2.** Smoking phobia of the respondents.

Parameters	Frequency	Percentage
Highly addicted time		
During gossip	105	35
After meal	51	17
Due to worried	84	28
Failure any work	24	8
Others	6	2
All seasons	30	10
Physical and mental changes due to smoking		
Fatigue	84	28.00
Irritating	63	21.00
Physical or mental dependency on smoking	123	41.00
All above	30	10.00
Feeling lonely		
Yes	150	50.00
No	48	16.00
Sometimes	102	34.00
Effects of study		
Most harmful	78	26.0
Moderate harmful	111	37.0
Less harmful	84	28.0
Harmless	27	9.00
Mealtaken frequency per day		
4	24	8.00
3	60	20.00
2	195	65.00
1	21	7.00

Table 2 presented that among the respondents 35% took smoke during gossiping while 41% had physical or mental dependency on smoking and 50% felt lonely where 26% said they had most harmful effects on study, 37% felt moderate and 9% felt harmless while 65% took meal 2 times daily.

**Table 3.** Relationship between respondents' highly addicted time by their age (%).

Highly Addicted time	Age (Years)					Total
	13-14	14(+)-15	15(+)-16	16(+)-17	17(+)-18	
During gossiping	3	3	2	6	21	35
After taking meal	1	2	2	4	8	17
Due to worried	1	4	4	3	16	28
Failure any work	1	0	2	2	3	8
Others	0	0	0	1	1	2
All seasons	0	0	1	2	7	10
Total	6	9	11	18	56	100

It was also showed the relationship between age of the respondents and the highly addicted times and observed that at the age of 17 years they smoke more times during gossiping and after meal, but at the age of fifteen the adolescence were more addicted due to their worried (Table 3).

**Table 4.** Relationship between the family size and reasons for smoking (%).

Reasons for smoking	Family size			Total
	2-4	5-7	>7	
Refuse of love	2	5	38	45
Problems of family	0	4	6	10
Friends incitement	1	9	22	32
Self courtesy	1	2	8	11
Others	1	1	0	2
Total	5	21	74	100

It is also found that extended family members were more smoking habit compare to smaller family size such as 74% of the adolescents were more addicted in the family size of  $\geq 7$  members and they are mainly addicted due to refuse of love and friends' incitements (Table 4).

## 4. Discussion

Smoking is a very common and popular bad habit which is generally inhaled in a public place all segment of population throughout the world. Consequences of smoking are serious and can include various forms of behavioural changes. The findings of this study are discussed in the following tables and figures. Several factors were involved in the addiction of smoking such as refusal of love and emotion, friend in interments, self curiosity and problems of the family etc. from the present study it was found most of the respondents (56%) were between 17(+)-18 years of age while 72.33% have completed higher secondary level and 32.66% adolescent had income, among them 42.86% earned more than BDT 5,000 monthly and 74% had more than 7 members in their family which is supported by another study [21, 22].

Majority of the respondents were addicted to smoking due to refusal of love and emotion (45%) and a greater percentage (32%) were also addicted with the friend's incitements. It also showed that extended family members were more smoking habit compare to smaller family size such as 78% of the adolescents were more addicted in the family size of  $\geq 7$  members and they are mainly addicted due to refuse of love and friends incitements. It also showed, the different types of behavioural changes of the respondents due to smoking and indicated that about one third (32%) of the respondents were disobedient parents and 24% of them were annoyed with others. Again 28% of the respondents were dishonour to respectable people. For this reason, these negative attitudes hamper their life as well as society. The rate of cigarette smoking was increased during gossiping time (35%) and after meal (17%). Failure to get any work or due to worry about somehow was also influenced this system and this result was almost the similar to many studies in health and social perspectives [23-26]. Considering the overall study it was felt that the adolescent smokers on the helm of the hazardous physical, mental and social situation and it is high time to take proper steps to practice 1/n nutrition counselling [27] to gift them a decent childhood for the ultimate interest of the family, society, country as well as the global context [28-31].

## 5. Conclusion

Smoking is a dangerous trend especially for adolescents

having negative impact on their dwelling families and societies. It is the saddest tales of seeing these age groups' smokers to smoke on open spaces like in buses, trains, schools, colleges, markets, parks and other public places and sometimes their behaviour looks irritating too. The guardians should take extra care about their children at the time of adolescence and talk friendly and share with their problems to curb the bad effects relied on smoking behaviour. The government and various national and international NGOs can organize anti-drugs campaigns to create awareness and can take them in the rehabilitation centers whereas sighting massive complications in this connection.

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