THE PLANET

Original Article

Determinants and Prevalence of Smoking among Young Male Patients attending at OPD in Selected Hospital

Moshiour Rahman[1*], Dilruba Yesmin Liza[2], Binoy Krishno Golder[3], Rafiqul Islam[4], Anup Kumar Howlader[5], Golam Kibria[6]

ARTICLE INFO

Received: 30 Apr 2026
Accepted: 8 May 2026
Published Online: 17 May 2026

DOI: 10.5281/zenodo.20258145

Volume: 9, Number: 3, Page: 2-5

e-ISSN: 2789-5912
ISSN: 2617-0817

*Corresponding author

ABSTRACT

Background: Smoking is a major public health concern worldwide, particularly in developing countries like Bangladesh. Adolescents are highly vulnerable to tobacco use, and early initiation increases the risk of chronic diseases. Understanding the prevalence and determinants of smoking among young males is crucial for developing effective preventive strategies. **Objective:** To determine the prevalence and identify determinants of smoking among young male patients attending the outpatient department (OPD) of a selected hospital in Patuakhali, Bangladesh. **Methods & Materials:** A cross-sectional descriptive study was conducted among 150 male adolescents aged 10–19 years attending the OPD of a 250-bed general hospital. Data were collected using semi-structured face-to-face interviews covering socio-demographic characteristics, smoking habits, and influencing factors. Pervasive sampling was used, and pre-testing of the questionnaire was conducted. Data were analyzed using SPSS version 11.5. **Results:** The prevalence of smoking among respondents was 35.33%. Most adolescents (86.79%) initiated smoking between 14 and 17 years, while 13.21% started between 10 and 13 years. Peer influence (50.94%), familial smoking environment (13.21%), and the desire to appear mature (7.55%) were the main determinants of smoking. Adolescents with lower education levels, as well as those with less-educated parents, had a higher prevalence of smoking. Despite 100% awareness of the health risks of smoking, knowledge alone did not prevent smoking behavior. **Conclusion:** Smoking is prevalent among young male adolescents, with social and environmental factors, rather than knowledge, primarily influencing initiation. Targeted interventions focusing on peer pressure, family influence, and education are essential to curb adolescent smoking in Bangladesh.

Keywords: *Smoking, Adolescents, Prevalence, Determinants, Male*

1. *Associate Professor, Department of Medicine, Patuakhali Medical College Hospital, Patuakhali, Bangladesh (ORCID: 0009-0006-0110-3695)*
2. *Deputy Director, Patuakhali Medical College Hospital, Patuakhali, Bangladesh (ORCID: 0009-0007-9044-1158)*
3. *Associate Professor & Head, Department of Gyncology & Obstetrics, Patuakhali Medical College Hospital, Patuakhali, Bangladesh (ORCID: 0009-0008-8971-5526)*
4. *Assistant Professor, Department of Medicine (Gastroenterology), Patuakhali Medical College, Patuakhali, Bangladesh (ORCID: 0009-0008-0736-7610)*
5. *Junior Consultant, Department of Cardiology, Patuakhali Medical College Hospital, Patuakhali, Bangladesh (ORCID: 0009-0005-5023-6585)*
6. *Medical Officer, Patuakhali Medical College Hospital, Patuakhali, Bangladesh (ORCID: 0009-0000-6037-8943)*

INTRODUCTION

The decline in tobacco smoking observed in developed countries is not evident in many developing countries, including Bangladesh. Despite high levels of poverty in Bangladesh, smoking rates are relatively high, and prevalence is highest among the poorest populations. Globally, there are approximately 1.3 billion smokers. [1] with Asia and Australia being the largest consumers of tobacco, accounting for 2715 billion cigarettes per year. [1] Smoking prevalence decreases proportionally with increasing income. Very little is currently known about smoking patterns and prevalence in general, and specifically among young adults, who are the primary target of the expanding tobacco market. In developed countries, most smokers begin at a young age, with nearly 80% initiating smoking during their teenage years. In developing countries, initiation often occurs in late adolescence; however, recent trends show a decline in the age of initiation. Smoking is the leading preventable cause of non-communicable diseases such as cancer and cardiovascular diseases. Most individuals try their first cigarette and become daily smokers during adolescence. [2] Those who start smoking before age 15 have double the risk of developing lung cancer compared to those who start after age 20. [3]

Cigarette smoking and exposure to tobacco smoke are associated with premature death, economic losses to society, and substantial burdens on healthcare systems. Smoking is the primary cause of at least 30% of all cancer deaths, nearly 80% of deaths from chronic obstructive pulmonary disease (COPD), and early cardiovascular disease-related deaths. It harms nearly every organ in the body, causing numerous diseases and reducing overall health. [4] Cigarette smoking is linked to a tenfold increase in the risk of death from chronic obstructive lung disease, with about 90% of such deaths attributable to smoking. Smoking also adversely affects reproductive health and early childhood outcomes, increasing risks of infertility, preterm delivery, stillbirth, low birth weight, and sudden infant death syndrome (SIDS). [4] Individuals who smoke is more likely to develop chronic bronchitis (OR = 6.92, 95% CI: 4.22–11.36). [5]

Secondhand smoke, also known as environmental tobacco smoke (ETS), is a mixture of smoke from the burning end of a cigarette, pipe, or cigar, and the smoke exhaled by smokers. Exposure to secondhand smoke increases the risk of coronary heart disease by 30%, an effect greater than would be expected based on active smoking and relative doses of smoke delivered to smokers and nonsmokers. Even brief exposure (minutes to hours) can produce effects nearly as large (80–90%) as chronic active smoking. [6]

Some studies report that smoking initiation can occur before age 15, with males more likely to start at an earlier age. [7]. The principal predictors of smoking among adolescents include parental household influence, peer influence, and environmental predisposition. Peer groups include siblings and friends. Additionally, age, socio-cultural status, level of education, and racial differences all influence smoking initiation among teenagers.

METHODS & MATERIALS

A cross sectional descriptive study was conducted on prevalence of young age patients in selected hospital. The quantitative investigation was undertaken to fulfill the objectives of the study by collecting information using questionnaire. The study was conducted at Outdoor Patients Department (OPD) in 250 Bed General Hospital, Patuakhali. The overall duration of the study was 6 months from 1st January 2017 to 30 June 2017.The target population for the study was young age (10 to 20 years) male patients coming at OPD in the selected hospital. The sample size was selected 150young age male patients. For this study various methods were used to collect data from the respondents that were included: Semi-structured face to face interviews was used with adolescent boys to gather data on background information, the aspect of knowledge, risk factors of smoking. The Pre-testing was done prior conducting the actual main study and necessary adjustment s/correction of the research tools was made. Pervasive sampling method was used to select sample population from the selected hospital. After collection, data were checked thoroughly for consistency and completeness. Data were checked after collection of data to data exclude any error or inconsistency. All analysis was done by appropriate statistical methods by using SPSS software for windows version 11.5. All ethical issues, which were related to the research involved with human subjects, were followed according to the guideline of ethical review committee.

OPERATIONAL DEFINITION

Prevalence: The ratio (for a given time period) of the number of occurrences of a disease or event to the number of units at risk in the population.

Determinant: Determinant is also used, being a variable associated with either increased or decreased risk.

Smoking: As a person who regularly smoked at least one cigarette or bidi per week.

RESULTS

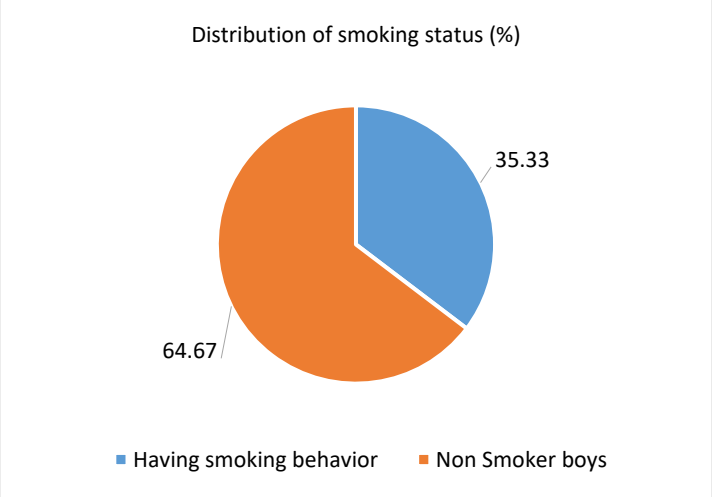

Figure 1 Distribution of the smoking status of Respondents.

Smoking status of adolescent boys

Figure 1 show that 35.33% adolescent boys have smoking habit and 64.67 % of respondents were having no addiction on smoking.

Table I shows that most of the respondents of this study were 14-17 years age group and their percentages were 44.7%. The smallest group was the 18–19 years age group, representing 14.6% of respondents. The 10–13 years age group comprised 40.7% of the participants. The mean age of the respondents was 14.31 years, with a standard deviation of ±1.88.

Table I
Distribution of the respondents by age.

Age of respondent	Numbers	Percentage
10-13 years	61	40.7%
14-17 years	67	44.7%
18-19years	22	14.6%
Total	150	
	Mean age 14.31,	STD±1.88

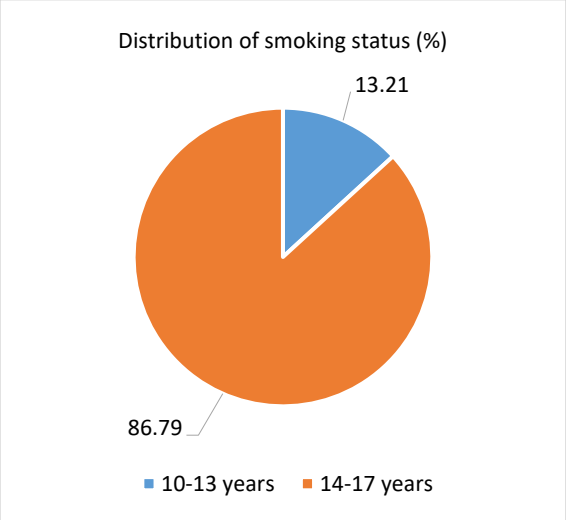

Figure 2 Distribution of respondents by Age at first smoking.

Age of first smoking by respondents

Figure 2 shows that the majority of adolescents (86.79%) started smoking between 14 and 17 years of age, while 13.21% initiated smoking earlier, between 10 and 13 years. These percentages are based on 53 respondents out of the total 150 participants.

Table II shows that 3.77% respondents who have addiction in smoking starts smoking by inspiration of watching TV/cinema, 50.94% start smoking due to peer's influence,13.21 % start smoking due to familial smoking environment, 7.55% start smoking to prove that they are mature,1.3% start smoking due to poor performance in the class.9.43% start smoking due to follow the senior in their residential area. 13.21% start smoking due to their early maturity to attracting girls.

Table II

Distribution of the Respondents by causes of smoking.

Causes of smoking	Number	Percent
watching TV/Cinema	2	3.8
peers influence	27	50.9
family influence	7	13.2
To feel mature	4	7.5
poor performance in class	1	1.9
To follow senior in locality	5	9.4
to attract girl	7	13.2
Total	53	100.0

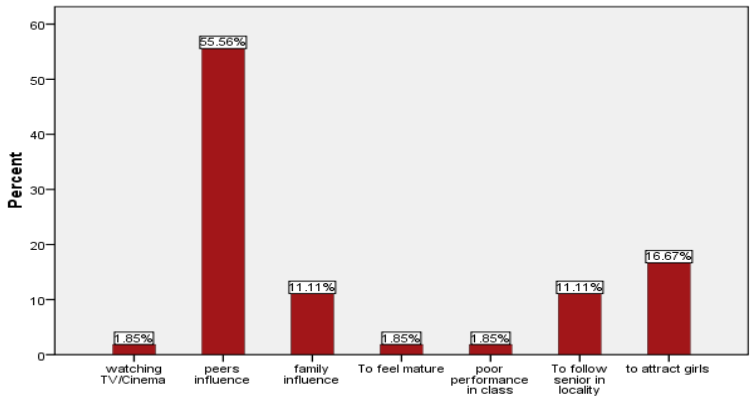

Figure 3 Distribution of respondents by the causes of smoking.

Table III shows that 77.9% were student's, 16.1% service holder and 6.0% were business man in their occupation among our total respondents.

Table III
Distribution of the respondents by Occupation.

Occupation	Numbers	Percentage
Students	116	77.9%
Service	25	16.1%
Business	9	6.0%
Total	150	100.0%

DISCUSSION

Smoking is one of the major public health problems worldwide, especially in developing countries such as Bangladesh. It is not a new issue, as it has persisted for over a century. Numerous studies have been conducted globally to examine smoking and its patterns. It is well known that most smokers begin smoking during adolescence. Therefore, this study was conducted to assess the prevalence and determinants of smoking among young male patients attending the OPD in a selected hospital.

In this study, the prevalence of current smoking was 35.33%, with 53 out of 150 respondents having a smoking habit, while 64.67% of the boys did not smoke. Most adolescents (86.79%) started smoking between 14 and 17 years of age, whereas 13.21% initiated smoking earlier, between 10 and 13 years. These findings are similar to adolescent smoking patterns in Indonesia, where 10% of smokers began between 10 and 14 years of age. [8] Adolescents involved in child labor were more likely to smoke.

This study also found that the education level of adolescents influences smoking behavior. Boys attending secondary school had a smoking prevalence of only 15%, whereas adolescents who were illiterate or left school before completing primary education had a prevalence of 80%. Parental education level was also closely associated with adolescent smoking.

Regarding reasons for smoking, 50.94% of adolescents started due to peer influence, 3.77% were influenced by watching TV or cinema, 13.21% were influenced by a familial smoking environment, 7.55% started to appear more mature, 1.3% due to poor academic performance, 9.43% to follow seniors in their residential area, and 13.21% due to early dating. Another study found that Children from smoking families are more likely to choose smoking friends. [9] In our Study we found 2% of adolescent smoker start smoking due to poor performance in the class. Simons and his associates found Smoking among adolescents' association with problems at school. [10]

No significant association was found between respondents' knowledge of the health risks of smoking and their actual smoking behavior; 100% of respondents were aware of the harmful effects of smoking. Smoking was found to be very common among middle-class male teenagers and even more prevalent among youths from nearby rural areas.

CONCLUSION

The study found that 35.33% of young male patients were current smokers, with most starting between 14 and 17 years of age. Peer influence, family environment, and the desire to appear mature were the main determinants of smoking. Lower education levels of adolescents and their parents were associated with higher smoking prevalence. Despite awareness of health risks, knowledge alone did not prevent smoking. These findings highlight the need for targeted interventions addressing social and environmental factors to reduce smoking among adolescents in Bangladesh.

ACKNOWLEDGMENT

Thanks to Almighty Allah for giving me the opportunity & providing me with sufficient energy and patience to carry on this study. I would like to express my greatest gratitude & whole hearted respect to Dr. AKM Mazharul Islam & Dr. Md. Mostafizur Rahman for their inspiring guidance, constant supervision, constructive criticism, valuable advice and encouragement in carry out this study. I would like to thank Deputy Director sir of 250 Beded Hospital, Patuakhali & my heartfelt thanks to all the respondents who helped us by providing their valuable opinion and unconditional time in this study.Finally and most importantly, to my family and friends, I appreciate their support and standing by my side always.

REFERENCE

1. World Health Organization; 2004. David A. Building blocks for tobacco control: a handbook. 1st ed.Geneva, Switzerland: 2004
2. Giovino, G.A. (2002). Epidemiology of Tobacco Use in the United States.Oncogene21: 7326-7340.
3. Kuper, H, Adami, HO, Boffetta, P. Tobacco Use, Cancer Causation and Public Health Impact. JInt Med. 2002;251:455-466.
4. Center for Disease Control and Prevention (CDC-2008). "Health Effects of Cigarette Smoking." Smoking and Tobacco use, Fact sheet'
5. Menezes. Prevalence and risk factors for chronic bronchitis in Pelotas, RS, Brazil: a population-based study. PubMed Central, Thorax. 1994 December; 49(12): 1217–1221.
6. Barnoya and Glantz. Cardiovascular Effects of Secondhand Smoke: Nearly as Large as Smoking. Journal of American Heart Association.2002; Circulation 111: 2684-2698.
7. Sen U. and Basu A, Analysis of factors influencing an adolescents intention to be a no smoker; CittaranjanNational Cancer Institute, Calcutta, India, May 2000.
8. Mohammad Y, Craving for Nicotine, 2001: A study on Tobacco Prevalence in Bangladesh; Bangladesh Institute of development studies, 2001.
9. Engels RCME and Willemsen M (2004): Communication about smoking in Dutch families: associations between antismoking socialization and adolescent smoking related cognitions. Health Educ Res 13: 227238.
10. SimonsMorton BG, Crump AD, Haynie DL, Saylor KE, Eitel P and Yu K (1999): Psychosocial, school and parent factors associated with recent smoking among early adolescent boys and girls. Prev Med 28: 138148