

Prevalence of Smoking among School Children in Dhaka City

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Abstract

Original Research Article

Background: Smoking means the activity or habit of smoking cigarettes; this is very much common all over the world. The consumption of cigarettes in developing countries is increasing, while in the industrialized country is declining or static. **Objective:** The aim of the study was to estimate the prevalence of smoking among school children in Dhaka city. **Material & Methods:** This cross-sectional study was conducted in high schools of Dhaka city from June 2006 to December 2006. Students of classes VIII, IX and X were selected by random table selection. A total of 2474 participants were included in the study. The collected data were analyzed by using the Statistical Package for Social Science (SPSS-24) for windows version 10.0. **Results:** The age of the study of children was between 12 to 18 years. Among the study children, 8(0.32%), 354(14.3%), 900(36.3%), 850(34.3%), 324(13.1%), 30(1.21%), 8(0.32%) belonged to 12, 13, 14, 15, 16, 17, 18 years of age respectively. Male and female students were 1876 (75.8%), 598 (24.2%) respectively. The prevalence of smoking among male and female students was 36.0% and 17.0% respectively. The prevalence was 32.0% and only 4.0% of the students are regular smokers combining boys and girls together. Only 06 (0.76%) did not want to leave smoking and 786 (99.24%) wanted to leave smoking. **Conclusion:** The prevalence was 32.0% among all students of this study. In boys, 36.0% were found smokers and in girls, 17.0% were smokers. Almost all (99.24%) students were willing to quit smoking in future. Adolescents should not be allowed to buy cigarettes for parents or family members.

Keywords: Smoking, Cigarettes, Prevalence, Adolescents, School Children.

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I. INTRODUCTION

Smoking means the activity or habit of smoking cigarettes; this is very much common all over the world. The consumption of cigarettes in developing countries is increasing, while in the industrialized country is declining or static. As long ago as 1986, WHO (World Health Organization) predicted that the difference in wealth between rich & poor countries worldwide widen further because of tobacco. Cigarette companies are based in the most technically advanced countries. The home market is declining in the face of public opinion and government legislation on smoking. International companies are now trying to export this carcinogen to developing countries. Anti-smoking campaigns in developing countries should be strengthened more to save future generations. Adolescence is the transitional period between childhood and adulthood; many factors push and pull

adolescents into high-risk behaviour and activities particularly the rapid social change and instability facing the world today, as a result of political unrest, industrialization, urbanization and poverty. Smoking begins primarily during childhood and adolescence. The younger they begin, the more likely they are to continue and the more but likely they are to smoke heavily [1]. The number of deaths attributed to cigarette smoking clearly outweighs all other factors, whether voluntary or involuntary, as a cause of death. Furthermore, teens who smoke are three times more likely than non-smokers who use alcohol, eight times more likely to use marijuana, and twenty two times more likely to use cocaine, smoking is associated with a host of other risky behaviors, such as fighting and engaging in unprotected sex [2]. Although it kills more people than AIDS, alcohol, drug abuses, car crashes, murders, suicides combined each year (CDC, 2001), WHO estimates

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approximately one-third of the global adult population or 1.1 billion people, have chosen to smoke [3]. The majority of these smokers are found in developing countries and most are male. Globally it is estimated that some 47% of men and 12% of women smoke [4]. Adolescent comprises about 20% of the population of the South East Asia Region [5]. About one-fifth of the world population is adolescents, of these 1.50 million are smokers and 75 million will die of smoking-related causes later in life [6]. In USA, approximately 1 million young people under the age of 18 years start smoking each year. This is a medical challenge, but also a cultural challenge. Let us all speak out, tobacco is a Killer, it should not be advertised, subsidized or glamorized. Adolescents should not be allowed to mortgage their lives to the seductive activities of the tobacco industry.

III. METHODOLOGY AND MATERIALS

This cross-sectional study was conducted in high schools of Dhaka city from June 2006 to December 2006. 12 schools were selected by random table selection. A total of 2474 participants were included in the study according to the following inclusion and exclusion criteria. The selected students filled up a questionnaire, which includes the age of initiation of smoking, place of smoking, informed persons about smoking, how the interest in smoking developed, source of money, willingness to leave smoking, whether smoking within the last 7 days before the interview and other relative information. The collected data were analyzed by using the Statistical Package for Social Science (SPSS-24) programme for windows version 10.0.

- **Inclusion Criteria**
- Students of class VIII, IX and X
- Boys and girls
- Willing to participate in the study

- **Exclusion Criteria**
- Incompletely filled up data were excluded from the study.
- Those student were absent during collection of data.

IV. RESULTS

The age of the study children was between 12 to 18 years. Among the study children, 8(0.32%), 354(14.3%), 900(36.3%), 850(34.3%), 324(13.1%), 30(1.21%), 8(0.32%) belonged to 12, 13, 14, 15, 16, 17, 18 years of age respectively (Figure I). Male and female students were 1876 (75.8%), 598 (24.2%) respectively (Figure II). Four hundred and eighty-seven 487(19.7%) students were from class VIII, 950(38.4%) were from class IX and 1037 (41.9%) were from class X (Figure III). Among 1950 male students 702 (36.0%) were smokers and 1248(64.0%) were non-smokers. Among 524 female students 90 (17.0%) were smoker and 434 (83.0%) were non-smoker. The prevalence of smoking among male and female students was 36.0% and 17.0% respectively (Table I and Table II). Among the smokers 512(65.0%) smoked once in their life, 248(31.0%) occasionally. Only 32(4.0%) students were regular smokers. Although the prevalence was 32.0%, only 4.0% of the students were regular smokers combing boys and girls together (Table III). Out of 792 smokers, 160(20.2%) initiated at the age of 12 years, 155 (19.5%), 216 (27.3%), 3 (0.3%) respectively at 13, 14, 17 years started their first smoking (Table IV). Ninety-one (11.9%) smoke in their residence. 233(29%) smokers smoke on road on the way to school. 22(2.9%) at a friend's house and 364 (46.0%) smoke in other places (Table V). Friends know about smoking in 545(68.2%) cases, near relatives in 33 (4.2%) cases, mothers in 47 (6.0%) cases and fathers in 15 (2%) cases (Table VI). Eighty-one (10.4%) students smoke to get friends cooperation and 183 (23%) students smoke to be more acceptable to his or her friends. 444 (56%) of smokers started smoking as a curiosity (Table VII). Tiffin money contributed in 207 (26.1%) cases as a source of money. Pocket money, friends money, travel allowance were also observed as sources of money for smoking in 65 (8.2%), 108 (13.6%), 87 (11%) respectively (Table VIII). Out of 792 students, only 06 (0.76%) did not want to leave smoking and 786 (99.24%) want to leave smoking (Figure IV). 573 (72.8%) were willingly wanted to leave smoking because smoking was injurious for health, 168 (21.2%) were willing to leave smoking because of mistakes themselves and 51 (6.4%) were willing to leave smoking because of parents pressure (Figure V).

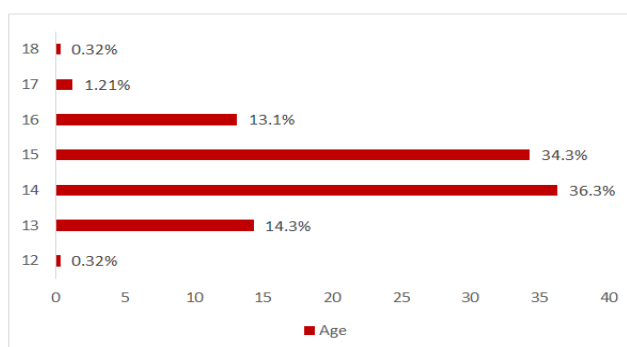


Fig-I: Age distribution of the study children (n=2474)

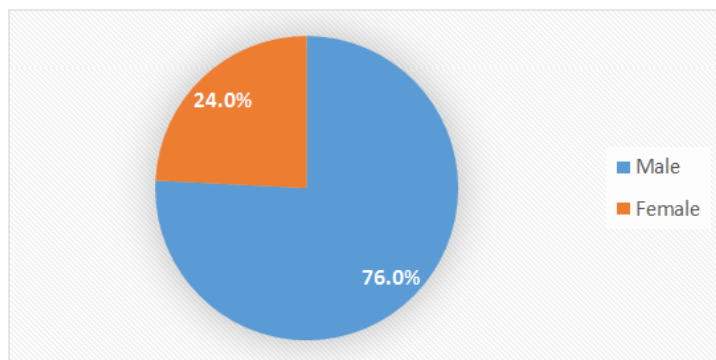


Fig-II: Sex distribution of the respondents

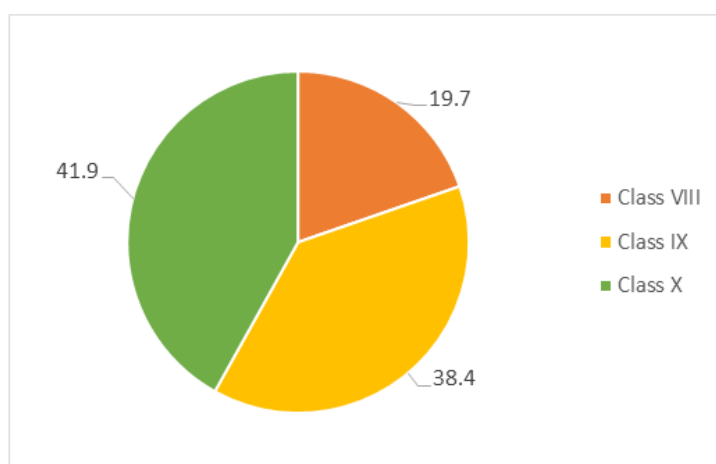


Fig-III: Class distribution of the study children

Table-I: Male smokers (n=1950)

	No. of respondents	Percentage
Smoker	702	36.0
Non smoker	1248	64.0

Table-II: Female smokers (n=524)

	No. of respondents	Percentage
Smoker	90	17.0
Non smoker	434	83.0

Table-III: Frequency of smoking (n=792)

Pattern of smoking	No. of the respondents	Percentage
Regular	32	4.0
Some times	248	31.0
One time	512	65.0

Table-IV: Age of initiation of 1st smoking (n=792).

Age of initiation	No. of the respondents	Percentage
7	6	0.7
8	26	3.3
9	32	4.0
10	36	4.6
11	44	5.6
12	160	20.2
13	155	19.2
14	216	27.3
15	84	10.7
16	30	3.7
17	3	0.3

Table-V: Smoking place of the respondents (n=792).

Place of smoking	No. of the respondents	Percentage
Room (at home)	91	11.9
School	49	6.3
Road (way to school)	233	29.9
Friends House	22	2.9
Park	26	3.1
Bathroom	7	0.8
Others	364	46.0

Table-VI: Informed persons about smoking (n=792).

Informed person	No. of the respondents	Percentage
Father	15	1.9
Mother	47	5.9
Friend	545	68.2
Teacher	6	0.7
Relative	33	4.2
Others	146	18.4

Table-VII: Reasons for smoking (n=792)

Reasons	No. of the respondents	Percentage
Curiosity	444	56
Lessen anxiety	24	03
Inspiration of reading	36	4.6
Self-dependent	24	03
Friends cooperation	81	10.4
Acceptance of friend	183	23

Table-VIII: Source of money for smoking (n=792)

Source of money	No. of the respondents	Percentage
Pocket money	65	8.2
Tiffin money	207	26.1
Travel allowance	87	11
Friends money	108	13.6
Sharing with others	20	2.5
others	305	38.5

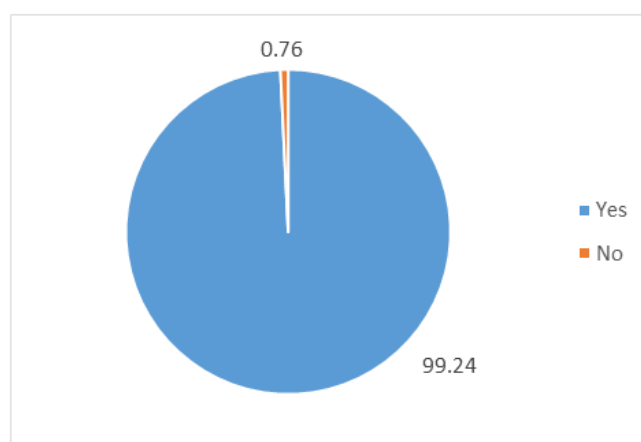


Fig-IV: Smokers willing to leave smoking

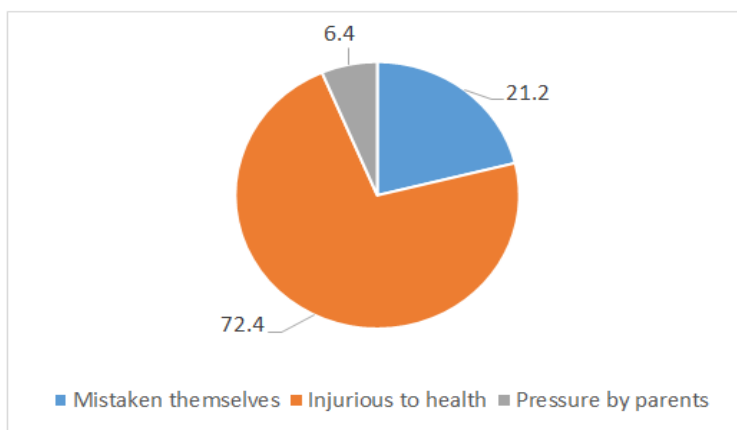


Fig-V: Reasons to leave smoking

V. DISCUSSION

The prevalence of smoking in this study was estimated at 32.0% including both female & male students. In male students, the prevalence was 36.0% & among female students it was 17.0%. A case-comparison study was conducted in Bangladesh among teenagers of metropolitan high school & males residing in the urban slum age group 12-20 of Dhaka city in 1991. A prevalence study in 1979, conducted among 13,887 students aged 10-16 years, in the two largest cities Dhaka and Chittagong reported 12.2% current smokers and 2.9% ex-smokers. Prevalence increased with age up to 23.3% among the 15-16 age groups. Concerning the habit of smoking out of 792 smokers, only 32 (4.0%) students were regular smoker, they smoke this very small figure on regular basis. The current smoker is 92 (11.6%) whereas ever smoker is 700 (88.4%). In this study, smoking initiation was detected from as low as 7 years of age. Early age of initiation is a significant risk factor for long-term dependent smoking and may relate to their unhealthy behaviours [8]. Age of initiation of smoking at the age of 8.5 years in a school base survey conducted in USA in 1999 [9]. A case comparison study [7] conducted in Bangladesh suggests smokers had been influenced to take up smoking by the smoking behaviour of peers and parents, peers were more important for the students. A major influence on the initiation of smoking was found friends, in a survey conducted among medical college students in Pakistan [10]. Most teens smoked usually out of curiosity [11]. A cross-sectional study among 257 teachers from 30 schools also revealed that curiosity (37.9%) is the priority initiating factor of smoking initiation [12]. Research findings from Taiwan indicate that most students started smoking because of curiosity [12-14]. Research on adolescent smoking suggests that for beginning smokers, curiosity and peer influence were the most frequently given reasons for smoking [15]. Adolescence is the most curious period of life. Unmasking the unknown is the natural tendency of all adolescents. So, it is quite obvious and justified that curiosity became the most important socio-behavioural indicator of smoking initiation. A longitudinal study conducted from 1978 through 1995

in USA, easy availability of cigarette smoking by adolescents [16]. In our society cigarettes are readily available for adolescents or any age group, as there is no youth access restriction on cigarette shops. However, this variable was not well emphasized as a predictor of initiation of smoking, even for a holistic approach to prevent smoking initiation among adolescents ‘Youth access restriction’ should be kept in mind. This study was conducted that the estimated prevalence was 32.0% among all students of this study. In boys, 36.0% were found smokers and in girls, 17.0% were smokers, 99.24% were willing to quit smoking in future.

VI. LIMITATIONS OF THE STUDY

The present study was conducted in a very short period due to time constraints and funding limitations. The small sample size was also a limitation of the present study.

VII. CONCLUSION AND RECOMMENDATIONS

The prevalence of smoking was 32.0% among all students of this study. In boys, 36.0% were found smokers and in girls, 17.0% were smokers. Almost all (99.24%) students were willing to quit smoking in future. Adolescents should be careful in selecting friends, as friends influence is the prime initiator of smoking behavior. The parents while issuing daily pocket money should make a based assessment need carefully. Adolescents should not be allowed to buy cigarettes for parents or family members. School-based smoking prevention programmes should be organized. The future anti-smoking campaign should aim at how to remove curiosity towards smoking and belief that “smoking relieves anxiety” from the curious and anxious mind of the adolescents.

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Conflicts of Interest

The authors state that the publishing of this paper does not include any conflicts of interest.

Ethical approval

The study was approved by the informed consent of the participant.

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