

Original Research Article

Assessment of prevalence and knowledge, attitude and practice of tobacco consumption among school going adolescent boys in urban field practice area of medical college: a cross-sectional study

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ABSTRACT

Background: Tobacco abuse is one of the biggest curses that modern society has come across. It is not confined to any one country or region alone, but has widely afflicted the globe. The most susceptible time for initiating use of tobacco in India is adolescence and early adulthood, ages 15-24 years while some start as young as 10 years. Approximately 55,500 adolescent start using tobacco every day in India, joining the 7.7 million young people under the age of 15 who already use tobacco on a regular basis.

Methods: It is a community based cross-sectional study conducted among school going adolescent boys of urban field practice area of medical college during July to September 2017. Data was collected through pretested semi-structured self-administered questionnaire given to students by the investigators. Data collected were analyzed using statistical package for social sciences (SPSS) 17 software.

Results: The prevalence of ever use of tobacco was 17.5% among school going adolescent boys in urban field practice area. In the present study it was observed that 174 (95.1%) adolescent boys had knowledge regarding hazards of tobacco. 110 adolescents (60.1%) had knowledge that passive smoking was harmful.

Conclusions: The study suggests that the prevalence of tobacco consumption was high among school going adolescent boys in urban field practice area of medical college. The knowledge of students regarding harmful effects of tobacco was not adequate. Attitude and practice regarding tobacco consumption is also not satisfactory.

Keywords: Tobacco, Urban, Knowledge, Attitude, Practice

INTRODUCTION

Tobacco use is a major worldwide public health problem. Tobacco use is one of the chief preventable causes of death and illness in the world.¹ Tobacco is estimated to have killed 100 million people in the 20th century & continues to kill 5.4 million people every year and this figure is expected to rise to 8 million per year by 2030, 80% of which will occur in the developing country.^{2,3} It

has been estimated that an average of 5.5 minutes of life is lost for each cigarette smoke.⁴

According to the WHO estimates, 194 million male and 45 million women use tobacco in smoked or smokeless forms in India.^{5,6} Indians form the second largest consumer of tobacco and consume it in smoked forms like Bidis, Cigarettes, Cigars, Cheroots, Chuttas, Dhumti, Pipe, Hooklis, Chillum Hookah or smokeless form like

Paan (betel quid) with tobacco, paan masala with tobacco areca nut and slaked lime preparations, Manipuri tobacco, Mawa, Khaini, chewing tobacco, snus, gutkha.⁷⁻⁹

In India tobacco use is estimated 0.8 million deaths annually.¹⁰ Nearly 2200 Indians die each day of tobacco-related diseases.¹¹ Although there is a health warning on every packet of cigarettes in India indicating that smoking is injurious to health, these warnings are illegibly printed. On the other hand, attractive and catchy tobacco advertisements are very common. Thus, the use of tobacco products including cigarettes is increasing in the country. Mostly the youth and adolescents are more attracted towards tobacco and its products.¹² The term "adolescent" refers to individuals between the ages of 10-19 years. The most susceptible time for initiating use of tobacco in India is adolescence and early adulthood, ages 15-24 years while some start as young as 10 years.¹³ Approximately 55,500 adolescents start using tobacco every day in India, joining the 7.7 million young people under the age of 15 who already use tobacco on a regular basis.¹⁴

The prevention of tobacco use in young Indians where deviation from healthy behaviours often occurs appears as the single greatest opportunity for preventing non-communicable diseases in the world today as it is home to one sixth global population.¹⁵ The early age of initiation underscores the urgent need to intervene and protect this vulnerable group from falling prey to this addiction. The risk of tobacco use is highest among those who start early and continue its use for a long period.¹⁶

Schools provide a route for communicating with a large proportion of young people, and school-based programs for smoking prevention have been widely developed and evaluated.¹⁷ Even though ill effects of tobacco are well known it continues to be one of the main habits forming and abuse substance.¹⁸ Government has taken many steps to reduce prevalence of tobacco consumption by creating awareness by using mass media, putting messages on the tobacco products, putting ban on smoking in public places and increasing the tax on tobacco products. But still the prevalence tobacco consumption tends to remain high.¹⁹ Determinants of tobacco use among youth may be socio-demographic factors like age, sex, state, region, socio-economic status like urban city, and environmental factors as use by parents, friends or school teachers, exposure to media, advertisements, and other factors are low awareness regarding tobacco hazards and behavioral intention to use.²⁰

The overwhelming majority of smokers begin using tobacco before they reach adulthood. Among those young people who smoke, nearly one quarter smoke their first cigarette before they reached the age of ten. Several factors increase the risk of youth smoking. These include tobacco advertisement and promotion, easy access to tobacco products, and low prices.²¹

Smokers who have taken up the habit in adolescence and continue to smoke regularly have a 50% chance of dying from tobacco-related disease. Half of those persons will die in middle age, thereby losing nearly 22 years of normal life expectancy. With prolonged smoking, smokers have a death rate about three times higher than non-smokers at all ages, starting from young adulthood. Presently, about four million people worldwide die yearly from tobacco-related diseases, i.e., one death every eight seconds. If current trends continue, there will be one death every three seconds by 2030.²²

Objectives of the study

- To study prevalence of tobacco consumption among school going adolescent boys in urban area
- To study socio demographic profile of school going adolescent boys in urban area
- To assess knowledge, attitude, and practice regarding tobacco consumption among school going adolescent boys.
- To give recommendations in order to decrease tobacco consumption in school going adolescent boys.

METHODS

It was a cross sectional study conducted among adolescents boys (8th, 9th, and 10th standard students) of school in urban field practice area of medical college during July to September 2017. There were three schools in the urban field practice area of the medical college. Out of three schools, one school was randomly selected. All the students of randomly selected school belonging to class 8, 9, 10th who agreed to participate in the study were included in the study. Universal sampling technique was used and 183 students were included in the study. Permission was taken from the Principle/Headmaster of school and also from class teacher to include students in the study. Approval for conduction of study was taken from ethical committee of the medical college. Pre validated semi-structured questionnaire was prepared according to the objectives of study, for assessment of prevalence of tobacco consumption, epidemiological factors influencing tobacco consumption, behavior pattern of tobacco consumption, morbidity profile with special reference to Tobacco related problems in school going adolescent boys in urban slum and rural settings (Global youth tobacco survey).¹² Socio-demographic factors like age, class, education, residence, annual family income, total family members and marital status were included in the questionnaire. Study subject were identified as per exclusion and inclusion criteria. Done Focus group discussion by using IEC materials before study commencement to build up the confidence and make children vocal and participatory and the responses given in focus group discussion by students were not included in study data. Students were taken in to confidence before data collection. Data was collected by using an anonymous pretested semi-structured self-

administered questionnaire. Informed verbal consent from the school authority was obtained after explaining the purpose of the study. The anonymous self-administered questionnaire was distributed to the students of selected classes after explaining the purpose of the study and the instructions to fill in the questionnaire. Considering the sensitivity of the issue, the school authority was requested not to be present in the class during the filling in of the questionnaire. One-class period (approx. 45 min) was provided to fill in the questionnaire. Students were assured that the information they provided would remain confidential and thus were encouraged to be truthful in their responses. They were informed that their participation was completely voluntary and they could quit at any time.

Inclusion criteria: Male students from 8, 9, 10th standard those who agreed to participate in study were included in the study.

Exclusion criteria: Exclusion criteria were male students who were not willing to participate in the study.

Statistical analysis: Data collected were tabulated, coded and analysed using statistical package for social sciences (SPSS) 17.0 software. Chi-square test was used to test the significance of difference between two proportions. For all the test, p value <0.05 was considered significant.

RESULTS

In the present study it was observed that maximum students 71 (38.8%) belonged to class 9th standard. Maximum study subjects were Hindu 80 (43.7%) followed by Buddhist 52 (28.4 %). It was observed in the present study that majority of study subjects were from general category 87 (47.5%) followed by SC category 52 (28.4%). Most of the study participants belonged to nuclear family 113 (61%). In the present study it was observed that maximum parents were undergraduate 90 (49.2%) followed by postgraduate 46 (25.1%). The present study showed that majority (43.7%) of the study participants got INR 21-50 per week followed by INR 0-20 (32.8%).

The prevalence of ever use of tobacco was 17.5 % among school going adolescent boys in urban field practice area of medical college. Overall smokeless tobacco use (11.4%) was higher than smoking type (6.0 %) in school going adolescent boys.

In the present study it was observed that 174 (95.1%) adolescent boys had knowledge regarding hazards of tobacco. 110 (60.1%) had knowledge that passive smoking was harmful. It was observed in the present study that 102 (55.7%) participants had knowledge about warning signs on tobacco product.

From the above table it is seen that 96.9% of tobacco ever user had knowledge regarding tobacco hazards. 94.7% of

never user had knowledge of tobacco hazards. The difference of knowledge about hazards of tobacco use among tobacco ever user and never user was not statistically significant.

Table 1: Socio demographic characteristics of study subjects.

Characteristics	Frequency	Percentage (%)
Grade		
VIII	56	30.6
IX	71	38.8
X	56	30.6
Religion		
Hindu	80	43.7
Buddhist	52	28.4
Others	51	27.9
Caste		
General	87	47.5
OBC	30	16.4
SC	52	28.4
ST	14	7.7
Type of family		
Joint	70	39.0
Nuclear	113	61.0
Parent literacy level		
Illiterate	2	1.1
Primary	5	2.7
Secondary	40	21.9
Undergraduate	90	49.2
Postgraduate	46	25.1
Pocket money (weekly) INR		
0-20	60	32.8
21-50	80	43.7
51-100	39	21.3
>100	4	2.2

Table 2: Prevalence of never use and ever use of tobacco among male students.

Tobacco use	Frequency	Percentage (%)
Ever use	32	17.5
Never use	151	82.5
Total	183	100

Table 3: Prevalence of tobacco use among male students according to type of tobacco.

Type of tobacco	Frequency (N)	Percentage (%)	
Smoking	Cigarette	9	4.9
	Bidi	2	1.1
Smokeless	Khaini	7	3.8
	Gutkha	12	6.6
	Other (Masheri)	2	1.1
			11.5
No	151	82.5	82.5
Total	183	100	100

Table 4: Knowledge of school going adolescent boys about various aspect of tobacco.

Knowledge	Frequency	Percentage (%)
Hazards of tobacco use		
Yes	174	95.1
No	9	4.9
Total	183	100
Passive smoking		
Harmful	110	60.1
Not harmful	40	21.9
Don't know	33	18.0
Total	183	100
Warning signs on tobacco product		
Know	102	55.7
Don't know	81	44.3
Total	183	100

In the present study it was observed that 55.7% study subjects strongly agree with the health warning on the

tobacco products followed by 41.5% subjects who agreed and 2.7% who disagree. It was observed that 65.5 % adolescents got influenced by father followed by 19.7% who got influenced by mother and 14.8% to both. It was observed that 56.3% got influenced by tobacco habits of friends. 75.4% adolescents were influenced by pro-tobacco advertisements.

Table 5: Knowledge of health hazards of tobacco use among male adolescent students according to tobacco use.

Knowledge of tobacco hazards	Tobacco use	
	Ever user (%)	Never user (%)
Yes	31 96.9	143 94.7
No	1 3.1	8 5.3
Total	32 100	151 100

Urban- Fisher test= 0.266; P= 0.9999.

Table 6: Attitude of study subjects regarding tobacco consumption.

		Frequency	Percentage (%)
Concerned about health warning on tobacco products	Strongly agree	102	55.7
	Agree	76	41.5
	Disagree	5	2.7
Adolescents who got influenced by parents tobacco consumption	Father	120	65.5
	Mother	36	19.7
	Both	27	14.8
Adolescents who got influenced by friends tobacco consumption habit	Yes	103	56.3
	No	75	41.0
	Don't Know	5	2.7
Concern about pro tobacco advertisements	Yes	138	75.4
	No	45	24.6

Table 7: Practice of tobacco users regarding tobacco consumption.

		Frequency	Percentage (%)
Frequency of tobacco use	Regular	12	6.6
	Occasional	11	6.0
	Past	4	2.2
	Experimental	5	2.7
	Never used	151	82.5
Attempt to quit tobacco use	Yes	22	12.0
	No	10	5.5
	Not applicable	151	82.5
Source of tobacco to adolescents	Buy self from shop	14	43.8
	Get from friends	12	37.5
	Take from parents or siblings	6	18.7

In the present study it was observed that among users, 12 (6.6%) were regular user and 11 (6%) were occasional users. 4 (2.2%) were past users and 5 (2.7%) were experimental user.

It was observed in the study that out of 32 tobacco users, 22 (12.0 %) tried to quit tobacco. It was observed in the study that 43.8% of tobacco users bought tobacco from shop followed by 37.5% adolescents who got tobacco from friends.

DISCUSSION

Through this study, an attempt has been made to look at some important Epidemiological aspects of tobacco use in the school going adolescent boys in urban area.

Tobacco use varies considerably from region to region within the country and there was lack of studies done exclusively to provide the prevalence & patterns of tobacco use in this region. The present study looked at the prevalence of tobacco consumption along with knowledge, attitude & practice in school going adolescent boys in urban field practice area of medical college.

Because of existence of strong correlation of local socio-cultural characteristics with tobacco use, an attempt was made to study the role of various socio-demographic factors associated with tobacco use.

Lastly, to provide information on awareness and prevailing mind set among tobacco users male adolescent students in this region, it looked at the very important determinants of tobacco use i.e. knowledge of health hazards of tobacco use among tobacco users and their attitude towards quitting the tobacco habit.

In this study it was found that the mean age was as young as 15 year (S.D \pm 1) and most of the adolescent boys were in the age 14,15,16,17 years. In similar study conducted by Soni et al observed that the age of the respondents ranged from 14 to 18 years.²³ In another study conducted Awasthi et al shows that 31.3%, 31.5%, 37.2% students were in the 8th, 9th, 10th grade respectively.²⁴ More than 90 per cent of the students belonged to Hindu families in study conducted by Narain et al.²⁵ Finding of this study almost similar to finding of present study. In a study study conducted by Soni et al shows three-fourths of the respondent belonged to a joint family and the remaining were part of a nuclear family.²³ Finding of this study was contrast to our study finding. Prevalence of tobacco use in present study was 17.5%. India GYTS conducted a school-based survey of students in grades 8, 9 and 10 in 2009 reported that 14.6% of students currently use any form of tobacco and the prevalence of tobacco use only in boys was 19.0%.²⁶ Findings of this study was similar to our study. Biswas et al reported that knowledge regarding harmful effects of tobacco was nearly similar among both ever users 170 (84.5%) and non-users 225 (88.9%).²⁷ Finding of this study is similar to present study.

CONCLUSION

Through this study, an attempt has been made to look at some important aspects of tobacco use in the school going Adolescent boys in urban area. Tobacco use varies considerably from region to region within the country and there was lack of studies done exclusively to provide the prevalence and patterns of tobacco use in this region. The present study looked at the prevalence of tobacco consumption in school going adolescent boys in urban

slum. Because of existence of strong correlation of local socio-cultural characteristics with tobacco use, an attempt was made to study the role of various socio-demographic factors associated with tobacco use. Lastly, to provide information on awareness and prevailing mindset among tobacco users male adolescent students in this region, it looked at the very important determinants of tobacco use i.e. knowledge of health hazards of tobacco use among tobacco users and their attitude towards quitting the tobacco habit.

Limitations

- The study has the possibility of slightly under reporting the prevalence of tobacco use because some students may not disclose the tobacco habit.
- Generalizability of the results may also be questionable due to non-inclusion of adolescent girl students.

Recommendations

Keeping in mind the magnitude of the tobacco problem the following recommendations are suggested to tackle the multifaceted problem of tobacco mortality and morbidity.

- Peer group and parental history of tobacco use influences tobacco use among school students hence this indicates that tobacco prevention intervention should essentially begin with the family. In all parents teachers meeting the consequences of tobacco use to be explained to the parents with specially reference to influences of their tobacco use on their children.
- Information, education and communication activities to raise the public awareness to address the problems arising out of lack of awareness.
- Policy to reduce the agricultural production of tobacco and to restrict the growth of tobacco industry in a phased manner.
- To involve the community, health institutions and non-governmental organisations actively in tobacco control.
- Effective implementation of laws like protection of non-smokers from second hand smoke (SHS) and prohibition of sale to minors.
- Smoking and tobacco use be prohibited within the school premises and appropriate penalty be recommended for in disciplines, if possible unauthorised vendor selling tobacco in any form be prevented from trading outside the premises through competent authority.
- To provide tobacco cessation services by establishing tobacco cessation clinics (TCC) in all health institutions.
- The teachers, medical and paramedical staff should give importance for health education on tobacco.
- Teacher should undergo training to recognised symptoms of tobacco addiction among the students

and subsequent management and the referral system for counselling of school students indulging in tobacco use establishing to nearest health centre of school, alternatively trained psychologist may be hired for monthly counselling services with reference to tobacco use.

- Lessons on tobacco should be included in educational curriculum at all levels.
- Policy to regulate the contents in the tobacco products, especially, the nicotine and tar content. Ingredients are to be disclosed.
- A comprehensive ban on tobacco advertisement, promotion and sponsorship.
- To keep a track of trends in tobacco use by regular community surveys and among specific groups, especially, the youth and women and create a forum for regional and global tobacco surveillance and exchange of information.
- Mobilization of tobacco non-users in motivating adolescent students to prevent initiation and quitting tobacco use would help to create a supportive environment.
- Lastly, overall development of the weaker sections of the community should be given priority as they are more likely to be worst affected by the tobacco use.

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