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Knowledge, attitude and practice of tobacco consumption among male college students of a rural area of Pune, Maharashtra

Deepika N. Sakore, Malangori A. Parande*, Vinay S. Tapare, Susmita Bhattacharya

Department of Preventive and Social Medicine, B.J. Govt. Medical College, Pune, Maharashtra, India

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*Correspondence:

Dr. Malangori A. Parande,

E-mail: drparandemalan@rediffmail.com

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ABSTRACT

Background: Use of tobacco is 2nd major cause of death in the world. The use of tobacco will be responsible for 10 million deaths per year by 2020-2030, mainly in China and India. India rank 4th in total tobacco consumption in the world. The prevention of tobacco use in young Indians appears as the single greatest opportunity for preventing non-communicable disease. The objective was to study knowledge, attitude and practice of tobacco consumption among male college students of rural area of Pune

Methods: Present cross-sectional study conducted among male college students of rural field practice area of a medical college during September to October 2015. The students were interviewed with prestructured questionnaire and investigator had explained all the details. The data was tabulated and analyzed using MS excel and SPSS.

Results: Total 207 male college students with mean age 18.6 ± 1.2 years were enrolled. 162 (78.3%) students have good knowledge of tobacco consumption effects whereas 191 (92.3%) have favorable attitude towards tobacco consumption. Among study subjects, 26 (12.6%) were consuming tobacco in one and or the other form. Out of these, 15 (57.7%) were smokers. Mean age of initiation of tobacco consumption was 16.9 ± 1.9 years. The knowledge (p=0.034) and attitude (p=0.007) were significantly associated with education of students. The gap between knowledge and practice was also significant (p=0.01).

Conclusions: The study suggests though the knowledge of students toward tobacco consumption is adequate, tobacco consumption habit is higher in students. This gap can be reduced by proper counseling of the students.

Keywords: Tobacco, Knowledge, Attitude, Practice

INTRODUCTION

Use of tobacco is the second major cause of death and one of the major preventable cause of disability worldwide. According to estimates of WHO, if current smoking patterns are not reversed, the use of tobacco will be responsible for 10 million deaths per year by the decade 2020-2030, with about 70% of them occurring in developing countries, mainly China and India. India is home for one sixth of global population. Currently about

one- fifth of all worldwide deaths attributed to tobacco occur in India, more than 8,00,000 people die and 12 million people become ill as a result of tobacco use each year.³ In India, the deaths attributable to tobacco are expected to rise from 1.4% of all deaths in 1990 to 13.3% in 2020.⁴ The prevention of tobacco use in young Indians appears as the single greatest opportunity for preventing non-communicable disease. It is estimated that 5,500 adolescents start using tobacco every day in India, joining the 4 million young people under the age of 15 who already regularly use tobacco.⁵

Adolescence is a transition phase when the mind is naturally motivated to experimentation and exploration of the world. It is the age when the majority of drug users start use of substances like inhalants and tobacco, later followed by addiction to alcohol and others in third decade of life. 6 Use of cigarettes, alcohol and illicit drugs by adolescents is a matter of concern world-wide. Drug use in this age group is associated with increased risk of accidents, violence and high-risk sexual behavior and hence infections such as HIV, interpersonal problems, decline in academic performance and failure to complete education etc. Drug use puts them to high risk of suffering from conduct and mood disorders.⁷ Helping young people to avoid starting addictive substances is a widely endorsed goal of public health, but there is uncertainty about how to achieve the goal. Schools provide a route for communicating with a large proportion of young people, and school-base programmes for smoking prevention have been widely developed and evaluated.8

There is paucity of attempts to assess the level and extent of knowledge of the adolescents, attitude of adolescents towards addiction and their practices of addiction. As males start drugs at an early age and are more likely to abuse the tobacco, therefore this study was planned in male college students of rural area to study knowledge and attitude of tobacco consumption and the prevalence of practice of tobacco consumption and to identify the effects of various socio-demographic variables (age, social status, education level, address) with knowledge, attitudes and practice of tobacco consumption.

METHODS

This was a cross-sectional study conducted among the undergraduate and postgraduate students of C.T. Bora College, Shirur which is the only senior college in Shirur with capacity of 1000 students. Study was conducted in month of October 2016.

Sample size and selection criteria

According to Global Youth Tobacco Survey 2009, considering the prevalence of tobacco consumption as 14.6%; with absolute precision of 5% and power of 80%, sample size was calculated and it came to 192 and is rounded up to 200.⁵ So, every fourth student was enrolled in the study after written informed consent. A prestructured and pretested questionnaire containing the following information was used to collect the data.

Socio-demographic factors like age, education, residence, annual family income (below poverty line), total family members, and marital status so as to assess the background of the student.

Detailed questionnaire regarding knowledge, attitude and practice

- i. It consists of total six questions to assess knowledge about tobacco consumption effects. A Score was given to each question and then students were classified as having below average knowledge with score <5 and above average knowledge with score >5
- ii. It also consists of three questions to access practice of tobacco consumption, form of tobacco consumption and reason for the same.
- iii. To identify the perception and attitude of study subjects towards tobacco use, three questions were asked. A score was allotted to each question and was considered as not favorable attitude with score <2 and Favorable Attitude was with score>2.

Inclusion criteria

Inclusion criteria were male students selected by systematic random sampling after taking written informed consent.

Exclusion criteria

Exclusion criteria were male students who were not willing to participate in the study, female students of senior college.

Statistical analysis

The data collected was tabulated, coded and analyzed using Microsoft excel and Statistical Package for Social Sciences (SPSS) version 17 for windows. Chi-square test was used to test the significance of difference between two proportions. For all the tests, p value <0.05 was considered significant.

RESULTS

A total 207 male students were included in this study. Mean age of study subjects was 18 ± 1.2 years ranging from 17 yrs to 24 yrs. Out of these students, 191 (92.3%) are undergraduate and 16(7.7%) are post-graduate. 86 (41.5%)of the subjects belong to below poverty line (BPL) and 121 (58.5%) belong to above poverty line. Maximum students i.e. 140 (67.6%) are from nearby villages of Shirur and coming to Shirur for college purpose while 67 (32.4%) students are from Shirur only.

When the knowledge of students was assessed for tobacco consumption, it was found that majority were aware of the addictive nature of tobacco, its harmful effects to self and others. 162 (78.3%) students have above average knowledge and 45 (21.7%) students have below average knowledge (Table 1). The major source of information for these students was mass media i.e. 130 students (62.8%).

Table 1: Knowledge of study subjects about tobacco addiction.

S. no.	Knowledge question	Options	Total (n=207) No. (%)
1	Do you know about tobacco being addictive substance?	Being addictive	171 (82.6)
		Non addictive	5 (2.4)
		Don't know	31 (15.0)
2	Source of information	Mass media	130 (62.8)
		Friends	25 (12.1)
		Health facilities	16 (7.7)
		Don't know	36 (17.4)
3	Harmful to your body	Yes	194 (93.7)
		No	13 (6.3)
4	Harmful to others	Yes	179 (86.5)
		No	28 (13.5)
5	Aware of de-addiction centre	Yes	140 (67.6)
		No	67 (32.4)
6	Addiction is proventable?	Yes	185 (89.3)
	Addiction is preventable?	No	22 (10.7)
7	Overall knowledge of tobacca addiction	Above average (≥5)	162 (78.3)
	Overall knowledge of tobacco addiction	Below average (<5)	45 (21.7)

Table 2: Attitude of study subjects about risk of tobacco consumption.

S. no.	Attitude	Options	Total (n=207) (%)
1.	Concerned about risk of addiction	Much concerned	37 (17.9)
		Not concerned	22 (10.6)
		Gather knowledge	19 (9.2)
		Take precaution	118 (57.0)
		No need of precaution	4 (1.9)
		Not sure	7 (3.4)
2.	Preference of money spent on	Tobacco	24(11.6)
		Healthy food items	183(88.4)
3.	If were consuming tobacco if told about hazards of it	Ready to quit	184(88.9)
		Not ready to quit	23(11.1)
4.	Attitude*	Favorable	191 (92.3)
		Not favorable	16 (7.7)

^{*}Not favorable attitude was with score (<2) and favorable attitude was with score (\ge 2).

When the student's attitude was assessed regarding the tobacco consumption, 191 (92.3%) have favorable attitude and 16 (7.7%) have not favorable attitude.

Practice of tobacco consumption

Out of 207 male students 26 (2.6%) students have habit of tobacco consumption in one or other form. Mean age for initiation of tobacco consumption was 16.9±1.9 yrs. Of which maximum 15 (57.7%) have habit of smoking and 4 (15.4%) have tobacco consumption habit in smokeless form i.e. tobacco chewing, gutka and mishri form and 7 (26.9%) have habit of tobacco consumption in mixed form i.e. both smoke form and smokeless form. The reasons for tobacco consumption were maximum because of influence of TV celebrity 12 (46.2%) followed by peer pressure 11 (42.3%) and fun 11 (42.3%) followed by depression 9 (34.6%) and lastly as history of tobacco consumption by parents or any family relative 6 (23%).

Among those students who have habit of tobacco consumption only 11.5% students were ready to quit tobacco consumption while maximum 88.5% were not ready to quit.

Factors affecting knowledge, attitude of tobacco consumptio:

Table 3 shows various socio-demographic factors affecting knowledge. It shows Education of students was significantly associated with knowledge of tobacco consumption effects (p=0.034) while age, address and socio-economic status were not significantly associated.

Table 4 shows age (p=0.002) and education (p=0.007) were significantly associated with attitude of tobacco consumption. Knowledge and practice were significantly associated (p<0.01) while knowledge and attitude and practice were not significantly associated.

Variables		Knowledge		P value	OR (95%CI)
variables		<average(n=45)< th=""><th>>Average(n=162)</th><th>P value</th><th>OK (95%C1)</th></average(n=45)<>	>Average(n=162)	P value	OK (95%C1)
A = -	< 20 years	38 (20.5)	147 (79.5)	0.17	0.86 (0.64-1.15)
Age	>20 years	07 (31.8)	15 (68.2)	0.17	1.55 (0.79-3.04)
A 3 3	Shirur	14 (20.9)	53 (79.1)	0.50	0.98 (0.85-1.15)
Address	Outside Shirur	31 (22.1)	109 (77.9)	0.30	1.06 (0.60-1.86)
E1 4	Undergraduate	38 (19.9)	153 (80.1)	0.034*	0.70 (0.45-1.09)
Education	Graduate	07 (43.8)	09 (56.2)	0.034**	2.20 (1.18-4.10)
Socioecono	BPL	22 (25.6)	64 (74.4)	0.17	1.09 (0.94-1.27)
mic status	Above BPL	23 (19)	98 (81)	0.17	0.74 (0.44-1.24)

Table 3: Factors affecting knowledge of effects of tobacco consumption.

Table 4: Factors affecting attitude of tobacco consumption.

Variables		Knowledge			
		Not favourable	Favourable	P value	OR (95%CI)
		(n=16)	(n=191)		
A ===	< 20 years	12 (6.5)	173 (93.5)	0.002*	0.86 (0.64-1.15)
Age	>20 years	04 (18.2)	18 (81.8)	0.002	1.55 (0.79-3.04)
Address	Shirur	5 (7.5)	62 (92.5)	0.46	0.98 (0.85-1.15)
Address	Outside Shirur	11 (7.9)	129 (92.1)	0.40	1.06 (0.60-1.86)
Education	Undergraduate	12 (6.3)	179 (93.7)	0.007*	0.70 (0.45-1.09)
Education	Graduate	04 (25)	12 (75)	0.007	2.20 (1.18-4.10)
Socioecono mic status	BPL	05 (5.8)	81 (94.2)	0.19	1.09 (0.94-1.27)
	Above BPL	11 (9.1)	110 (90.9)	0.19	0.74 (0.44-1.24)

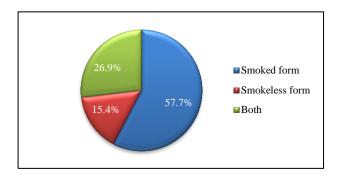


Figure 1: Pie diagram showing different forms of tobacco consumption in study subjects.

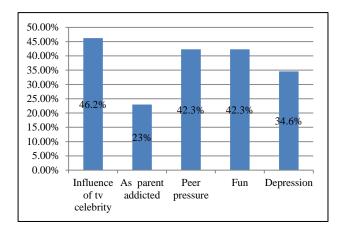


Figure 2: Diagram showing reasons for tobacco consumption in study subjects.

DISCUSSION

Health risk behavior is an important link to the overall health status of adolescents and is important determinant of morbidity and mortality in this age group. Tobacco consumption is widespread in India. In our study, 78.3% students have good knowledge of tobacco consumption effects whereas 92.3% have favorable attitude towards tobacco consumption. Among study subjects, 12.6% were consuming tobacco in one and or the other form. Out of these, 57.7% were smokers. Mean age of initiation of tobacco consumption was 16.9±1.9 years. The reasons behind consuming tobacco were influence of TV celebrity, peer pressure and fun. The knowledge (p=0.034) and attitude (p=0.007) were significantly associated with education of students. The gap between knowledge and practice was also significant (p=0.01).

The prevalence rate of tobacco use in this present study shows results similar to those of other studies.^{6,9} Varying reports are present on the prevalence of tobacco use amongst students in different states of India, ranging from 1.9% in Delhi- the national capital to 75.3% in Mizoram- the eastern most corner of the country. 9-11 Sinha et al had reported very high tobacco use i.e. 74.15% in a village in Bihar among males. 12

In the present study, the mean age of tobacco consumption initiation was found to be 16.9±1.9 yrs. This was similar with study done at Western Nepal and in a study in India. 13,14 The reasons reported for initiation of

tobacco use were peer pressure, fun, influence of TV celebrity and imitating elderly in the family. While some study showed early age of initiation of tobacco consumption while some showed late age of initiation of tobacco use. 15-19

In the present study among those consuming tobacco, maximum 57.7% were smoker which almost similar to the observation in other study.^{6,9,20,21} In a study by Jayakrishnan et al showed a high prevalence of smokeless tobacco use among school students (4.1%); with current smokers being less than 1% and also similar findings were noted by Sinha et al in a village of Bihar.²² Tobacco products are socially sanctioned but are freely available in every nook and corner throughout the country. Trend toward smoking among the youths is increasing smoothly as reported by GYTS 2009 and Gajalakshmi et al. 5,24 The public health implication of these habits starting at an early age is that it is well established fact that people change over from smokeless form to smoking over a time span, which sooner or later will form a threat and burden to the national and international health and economy. 25

The results in the present study regarding knowledge were similar to the findings of a similar study on school students of 10-12 years age in Patna, Bihar, where majority students had adequate knowledge. 6,26 A study in Jaipur²⁷ with students in classes 9-12, showed that 99.2% boys were aware that tobacco use is harmful. Majority of the adult males were using tobacco products but they had knowledge about the harmful effect of tobacco was similar to as in present study.^{28,29} Attitude of most of the study subjects was favorable in this study was similar to results of study Tiwari et al.²⁵

A majority of the students used tobacco in spite of having knowledge about harmful effects of tobacco are similar finding have been cited in other studies.²⁹⁻³¹

Although the advertisement of tobacco products in national electronic media (i.e. radio and television) is already banned in India and several other countries, the clips of smoking film stars in different cinemas also influence students to use tobacco. In this study reasons for consumption of tobacco was associated with influence of TV celebrity or role models ever seen smoking was similar with finding of Gupta et al, Taylor et al. 31,32 Also Peer pressure play important role for tobacco consumption was similar to other study.³³ Parental smoking has been found to be strong factor in western studies but parental smoking influence was not much seen in present study similar to other study but contrary to finding of study conducted in Bombay. 33,34

CONCLUSION

The study suggests though the knowledge of students toward tobacco consumption is adequate, tobacco consumption habit is higher in students. This gap can be reduced by proper counseling of the students. Adolescent tobacco use in rural area is a matter of concern. Many psychosocial factors also have an important role to play in initiation of this habit. Adolescent health education, Sensitization programs for adolescent students and members of Parent Teacher Association and NGOs have to be given in a systematic manner. There is an urgent need to launch school-based tobacco awareness and prevention programs, IEC activity for primary prevention.

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