



TOBACCO SMOKING AMONG UNDERGRADUATE STUDENTS OF A MEDICAL COLLEGE

Community Medicine

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ABSTRACT

BACKGROUND: As future physicians, medical students will be the backbone of tobacco prevention and control program. Therefore, the present study was planned to evaluate the prevalence, pattern, knowledge and attitude among undergraduate medical students towards tobacco smoking.

METHODS: The printed copies of pre-tested, validated, self-administered questionnaires were distributed to participants. The data was tabularized and analyzed.

RESULTS: In present study, overall prevalence of tobacco smoking was 34% and that of current tobacco smoking was 20.4%. Majority of current smokers were male (87.9%), hosteller (91.4%), with positive family history (57.7%), willing to quit (63.9%), with adequate knowledge (90%) and favourable attitude (76.5%).

CONCLUSION: Despite high prevalence; medical students have adequate knowledge, favourable attitude and are willing to quit tobacco smoking. So, they will respond well to tobacco prevention and control program.

KEYWORDS

Global Adult Tobacco Survey-2, peer pressure, nicotine, smoking cessation.

INTRODUCTION

Across the world, tobacco consumption is a cardinal preventable cause of morbidity and mortality along with its economic implications.^{1,2} According to estimates of WHO, if current smoking patterns are not upturned, the use of tobacco will be accountable for 10 million deaths per year by the decade 2020-2030, with about 70% of them occurring in developing countries, mainly China and India.³ Currently each year in India, 12 million people become ill and more than 8,00,000 people die as a result of tobacco use which attributed to about one-fifth of global deaths due to tobacco use.⁴

Tobacco smoking harms nearly every system of the human body and diminishes the general health of the smokers and even of passive smokers.⁵ According to Global Adult Tobacco Survey-2 (GATS-2) India 2016-17, prevalence of tobacco use is 28.6%, 19% of men, 2% of women, and 10.7% of all adults currently smoke tobacco. Prevalence of tobacco use in age group 15-24 years in India is 12.4%. In Maharashtra prevalence of tobacco use is 26.6% and 3.8% of adult smoke tobacco.⁶

Adolescence is age when most drug users start use of substances like inhalants and tobacco, later followed by addiction to alcohol and others in third decade of life.⁷ It is estimated that 5,500 adolescents start using tobacco every day in India.⁸ Hence it will be of great help to know and improve knowledge and attitude of college going students towards tobacco smoking.

Health care professionals serve as role models for healthy behaviour to the public. During routine visits, health professionals play an important role not only in educating patients about the hazards of tobacco smoking but also to support and motivate patients to quit smoking. It is one of the most cost-effective methods of reducing smoking. As future physicians, medical students will be the backbone of tobacco prevention and control program, thus it is of great importance to determine their knowledge and attitude before implementing any anti-tobacco measures.^{9,10}

Therefore, the present study was planned to determine the prevalence and pattern of tobacco smoking among undergraduate medical students and to evaluate their knowledge and attitude.

MATERIALS AND METHODS

This was a cross-sectional, objective type questionnaire-based study, conducted among undergraduate medical students of Government

Medical College in western Maharashtra from October 2018 to December 2018. The study was approved by Institutional Ethics Committee.

According to Global Adult Tobacco Survey 2016-17, considering the prevalence of tobacco use in India in age group 15-24 years as 12.4%; with confidence interval of 95% and power of 80%, acceptable error of 5%, sample size was calculated, and it came to 271 and was rounded up to 300. The purpose of the study was explained and assurance about the confidentiality of the information was given to participants. By using simple random sampling method 75 participants were selected from each of four undergraduate years. Written informed consent of the students was sought; those not willing to give written informed consent were excluded from study. The printed copies of pre-tested, validated, self-administered questionnaires that was developed based on previous literature review were distributed to the students. They were given 10 minutes to answer the questionnaire.

Prevalence and pattern of tobacco smoking was assessed by nine questions. Evaluation of questions pertaining to knowledge and attitude was done using a scoring system. Each correct response was given one point while incorrect responses were not given any point. Total fourteen questions assessed knowledge; maximum possible score was fourteen. Participants were classified as having below average knowledge with score < 7 and above average knowledge with score ≥ 7. Eight questions were designed to evaluate attitude. A score was allotted to each question and was considered as favourable attitude towards tobacco smoking (participants consider tobacco is a bad habit) with score ≥ 4 and unfavourable attitude with score < 4. Data obtained were entered in Microsoft Excel 2013 spreadsheet for statistical analysis and percentage were calculated for concerned responses.

RESULTS

Out of total 300 distributed questionnaires, 285 were found to be eligible for analysis. Incompletely solved were not taken into consideration for analysis. All participants were between 18-24 years of age. Out of total 285 participants 181 (63.5%) were male and 104 (36.5%) were female.

The overall prevalence of tobacco smoking was 34% (n=97; 58 current smokers and 39 ever smokers). The prevalence of current smoking was 20.4% (n=58). 87.9% (n=51) current smoker were male. Prevalence and frequency of tobacco smoking among study participants is

mentioned in Table 1. Residence of participants is depicted in Table 2. Table 3 shows detailed pattern of tobacco smoking.

Table 1: Prevalence and frequency of tobacco smoking

Prevalence (n=285)	Male	Female	Total
Current smoker (%)	51 (17.9)	7 (2.5)	58 (20.3)
Ever smoked (%)	29 (10.2)	10 (3.5)	39 (13.7)
Never smoked (%)	101 (35.4)	87 (30.5)	188 (66)
Frequency in current smokers (n=58)			
Occasionally (%)	28 (48.3)	4 (6.9)	32 (55.2)
Weekly (%)	10 (17.2)	3 (5.2)	13 (22.4)
Daily (%)	13 (22.4)	0 (0)	13 (22.4)

Table 2: Residence of participants

Residence	Current (%) (n=58)	Ever (%) (n=39)	Never (%) (n=188)
Home	3 (5.2)	6 (15.4)	94 (50)
Hostel	53 (91.4)	29 (74.4)	74 (39.4)
Rented rooms	2 (3.4)	4 (10.2)	20 (10.6)

Table 3: Pattern of tobacco smoking

Family History of smoking	Total [n= 97] (%)
Present	56 (57.7)
Absent	41 (42.3)
Reason to start	Total [n= 97] (%)
Peer pressure	36 (37.1)
Easy availability	12 (12.4)
Curiosity	24 (24.7)
Stress	15 (15.5)
Style and fun	6 (6.2)
Other	4 (4.1)
Source of tobacco	Total [n= 97] (%)
Self	74 (76.3)
Friend	14 (14.4)
Family	9 (9.3)
Preferred place of smoking	Total [n= 97] (%)
College	5 (5.1)
Home	9 (9.3)
Hostel	16 (16.5)
Local friend's home	3 (3.1)
Entertainment place	51 (52.6)
Tae stall	7 (7.2)
Public place	6 (6.2)
Companion	Total [n= 97] (%)
Alone	18 (18.6)
Friends	63 (64.9)
Family	6 (6.2)
Other	10 (10.3)
Willing to quite	Total [n= 97] (%)
Yes	62 (63.9)
No	35 (36.1)

(for n = Current smokers + Ever smokers = 58+39 = 97) Knowledge of study participants is depicted in Table 4. 90% of total study participants had above average knowledge with score ≥ 7 out of 14.

Table 4: Knowledge of study participants about tobacco smoking.

Sr. No.	Knowledge based questions (Answers)	Number of correct responses [n=285] (%)
1.	Is smoking harmful? (yes)	285 (100)
2.	Which of the following are health hazards of smoking (all)	
	Gum Disorder	273 (95.8)
	Respiratory Diseases	285 (100)
	Coronary Heart Diseases	203 (71.2)
	Cerebrovascular Disease	188 (66)
	Cancer	267 (93.7)
	Sexual Dysfunction	154 (54)
	Psychiatric Disorders	85 (29.8)
3.	How many years does it take to reduce the risk of developing heart disease to normal after smoking cessation? (15 years)	187 (65.6)

4.	How many years does it take to reduce risk of lung cancer by half after smoking cessation? (10 years)	156 (54.7)
5.	Can smoking during pregnancy cause harm to mother and baby? (yes)	257 (90.2)
6.	Is passive smoking harmful? (yes)	263 (92.3)
7.	What is addictive in cigarette? (nicotine)	176 (61.8)
8.	Does cessation of smoking cigarette improve person's health? (yes)	276 (96.8)

Table 5 shows attitude of study participants. Favourable attitude is present in 76.5% participants with Score ≥ 4 .

Table 5: Attitude of all study participants towards tobacco smoking

Sr. No.	Beliefs (Favourable responses)	No. of favourable responses (%)
1.	It is unfriendly to refuse when others offer a cigarette (No)	239 (83.9)
2.	Smoking is an easy way to connect with /approach other people (No)	218 (76.5)
3.	Smoking makes one appear mature (No)	231 (81.1)
4.	Smoking makes one more attractive to opposite sex (No)	208 (73)
5.	Smoking helps one to perform better in study (No)	232 (81.4)
6.	Smoking can reduce weight (No)	217 (76.1)
7.	Smoking is a waste of money (Yes)	143 (50.2)
8.	Smoking is a personal issue; others should not intervene (No)	178 (62.5)

DISCUSSION

In undergraduate medical students, prevalence data is a key to assess tobacco smoking as a risk factor and analysis of baseline pattern, knowledge, and attitude about the same helps to plan necessary anti-smoking interventions. Administrators and policy-makers can thereby take important decisions and appropriate steps to prevent and control tobacco smoking in future doctors of country so that they can deal efficiently with their own and patients' smoking behaviour.

The overall prevalence of tobacco smoking in the present study was 34% while that of current tobacco smoking was 20.4%. Out of current smokers 87.9% were male and 55.2% were occasional smokers. Previous studies in India reported different prevalence and frequency of tobacco smoking.^{11,12,13,14} This difference may contribute to social, cultural and traditional variability at different places of India. The fact that tobacco use among girls is not culturally accepted in conservative Indian society, implies higher prevalence in male.

Among current tobacco smokers 91.4 % were staying at hostel and 57.7% were having positive family history; these findings are in line with findings of Selokar et al.⁹ This finding reveals influence of environment on the tobacco consumption among medical students which should also be targeted and intervened accordingly. Parents play vital role in children's tobacco habit and it needs to be identified and addressed at early stages to change behaviour of children in later life. There is a need of strengthening and strict implementation of smoking related rules in hostels of medical college specially boys' hostel as male were majority among smokers. The most common reason to start tobacco smoking in our study was peer pressure (37.1%), followed by curiosity (24.7%) and stress (15.5%) which was in accordance with findings in other studies.^{9,15} This is a serious issue as it is very difficult to prevent the effect of these factors, which favours social acceptability in friend circle. Tobacco control activities may be promoted to train participants with the skills to refuse smoking and resist all types of cigarette-related behaviour effectively. Stress is an inevitable factor of medical science education and students consider smoking as a coping approach. Medical students need to educate regarding effective stress management strategies and motivate to adopt positive attitude towards the life in stressful condition.

In this study, 76.3% tobacco smokers bought their own tobacco, 52.6% preferred to smoke at entertainment place (like parties, cinema halls, gardens), friends were most common (64.9%) companion and 63.9 % were willing to quit smoking. Similar smoking pattern regarding above mentioned factors was observed by Multani et al.¹⁴ Policies like

prohibition of cigarette advertisement and retail cigarette shops near medical college campus, declaration of cinema halls and gardens as no smoking areas, anti-smoking advertisement in campus may help as difficult access to cigarettes and smoking places may act as a catalyst to break smoking habit. Smoking cessation motivation, counselling, education regarding therapies available and professional help for cessation may be of great help as many participants are willing to quit.

In present study, 90% of total study participants had above average knowledge with score ≥ 7 and 76.5% participants had favourable attitude towards smoking. Many other studies also reported similar results.^{13,16,17,18} Despite adequate knowledge regarding tobacco smoking many participants were unaware of some smoking hazards like sexual dysfunction and psychiatric disorders. Many participants were not known about benefit of cessation like decrease in risk of developing heart disease and lung cancer. Including these topics into curriculum may assist in improving knowledge. Favourable attitude was observed in participants but many of them consider that smoking is not wastage of money and it is one's personal issue; others should not intervene.

Though the prevalence of tobacco smoking was high in current study, participants had adequate knowledge, favourable attitude and majority of them were willing to quit. This indicates that participants will respond well to tobacco prevention and control programs. Conducting Information, Education and Communication (IEC) activities through lectures, posters, pamphlets, and showing videos, workshops and seminars may help to further improve knowledge and attitude.

Limitations of this study are single centered, cross sectional study design, reliability of answers is not known, and so generalizability of the results may get affected. These issues call for further research and analysis.

CONCLUSION

In medical undergraduate students, though there is adequate knowledge and favourable attitude towards tobacco smoking; prevalence is high. Strict implementation and monitoring of smoking-related rules in hostels, training of skills to refuse smoking and effectively resist all types of cigarette-related behaviours, motivation and awareness regarding available treatment of tobacco smoking cessation through conducting IEC activities, workshops and seminars may help in reinforcing tobacco smoking free attitude.

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