

Tobacco Use among Medical Students: Are They the Role Models of the Society?

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ABSTRACT

Background: Tobacco use is one of the leading preventable causes of premature death, disease and disability around the world. The medical students who themselves use tobacco are unlikely to counsel patients against using tobacco.

Aims: To find out the prevalence and the pattern of tobacco use amongst medical students and to suggest suitable preventive and promotive measures to them.

Settings and Design: A three month cross sectional study was conducted among the male medical students of Rohilkhand Medical College and Hospital, Bareilly, Uttar Pradesh, India.

Methods and Materials: A total of 277 students out of 331 who were residing in the boys hostel participated and they were interviewed with regards to tobacco use by using a structured self administered questionnaire.

Statistical Analysis: The collected information was analyzed by using the SPSS 14.0 version software. The Chi-square test was applied.

Results: Nearly one third of students admitted to be tobacco users. Most of the tobacco users were aged between 21-30 years. The tobacco consumption was significantly higher among the senior students. Nearly 25.27% of the students admitted to tobacco smoking, while only 10.47% admitted to tobacco chewing. A higher proportion (42.39%) of the students had initiated tobacco use themselves, while 41.31% of the students were offered tobacco by a friend and 16.31% were offered tobacco by a senior. A majority of the students smoked just for fun, they were aware that tobacco was injurious to health and they wanted to quit tobacco use. About 14.13% of the tobacco users had suffered from a health problem.

Conclusions: The prevalence of tobacco use is high amongst the medical students of Bareilly. Being the role models of society and future doctors, they have an important role to play in the tobacco cessation and prevention efforts.

Key Words: Tobacco use, Medical students, Role models

INTRODUCTION

Tobacco use is one of the leading preventable causes of premature death, disease and disability around the world [1]. Tobacco use is one of the risk factors for six out of eight leading causes of deaths worldwide [2]. An estimated 4.9 million deaths which occur annually can be attributed to tobacco use. This may increase to 10 million by the year 2020, if the current tobacco use epidemic continues and more than 70% of these deaths are expected to occur in the developing countries [3]. The Global Youth Tobacco Survey has estimated that 5,500 adolescents may start using tobacco every day in India to join the 4 million young people who were aged less than 15 years, who regularly used tobacco [4].

Medical students who are future doctors have an important role to play in the tobacco cessation and prevention efforts. They are ideally suited to provide the knowledge about tobacco use. However, the medical students who themselves use tobacco are unlikely to counsel patients against using tobacco [5]. The prevalence of tobacco smoking has gone up among the Indian medical students. They lack adequate knowledge about the smoking-related diseases, the tobacco cessation techniques and the preventive measures.

The undergraduate medical students should be equipped with the knowledge and skills to promote smoking cessation skills among their future patients. With this background, this study was

undertaken among medical students to find out the prevalence of tobacco use amongst them and to suggest suitable preventive and promotive measures to them.

MATERIAL AND METHODS

This cross sectional study was carried out among the male medical students of Rohilkhand Medical College and Hospital, Bareilly, Uttar Pradesh, India. The approval for this study was obtained from the institutional ethical committee and the consent of all the students was taken. All the medical students who were residing in the boys hostel were surveyed and they comprised the study unit. A total of 277 out of 331 students participated in the study. A structured, self administered questionnaire was used to collect detailed information about the pattern of the tobacco use. The students were assured confidentiality of their responses.

The following **Operational Definitions** were put to use in the present study:

1. Current smoker- someone who smoked in any form either daily or occasionally in the preceding month of the survey.
2. Current smokeless tobacco user- someone who consumed smokeless tobacco in any form either daily or occasionally in the preceding month of the survey.

The data entry and the statistical analysis were performed by using the SPSS Windows version 14.0 software. The test of significance

(Pearson's Chi-square test) was applied to find out the results. The p values which were <0.05 were considered as significant.

RESULT

The overall response rate was 83.68% (277/331). Out of the 277 respondents, 92 (33.21%) were found to be tobacco users. A majority of the tobacco users (82.61%) were aged between 21-30 years. The tobacco consumption was significantly increased among the senior (third, fourth and final year) students as compared to that among the junior (first and second year) students ($P<0.05$) [Table/ Fig-1]

Seventy (25.27%) students admitted to tobacco smoking, while only 29 (10.47%) students admitted to tobacco chewing. Seven (2.53%) students consumed tobacco in both the smoked and the smokeless forms. Thirty eight (41.31%) of the 92 students smoked more than 10 cigarettes or consumed more than 10 tobacco pouches (pan masala) per day. A majority (42.39%) of the students had initiated the tobacco use themselves, while 41.31% of the students were offered tobacco by a friend and 16.31% were offered tobacco by a senior. About 68.57% of the students smoked just for fun. A majority (89.53%) of the respondents were aware that tobacco was injurious to health and nearly 64.13 % of the students wanted to quit tobacco. About 14.13% of the students had suffered from a health problem since they had started consuming tobacco [Table/Fig-2]

Characteristics	Total (N=277)		Chi-Square (df), P-value
	Users (n=92)	Non-users (n=185)	
Age group (years)			
11-20	16 (5.77)	40 (14.44)	.682(1) .409
21-30	76 (27.43)	145 (52.34%)	
Year of study			
First	10 (3.61)	30 (10.83%)	10.271 (4) .036
Second	19 (6.85)	37 (13.35%)	
Third	31 (11.19)	37 (13.35)	
Fourth	20 (7.22)	35 (12.63)	
Fifth	12 (4.33)	46 (16.60)	

[Table/Fig-1]: Tobacco use among medical students in relation to age and year of study

DISCUSSION

Nearly one third of the students admitted to tobacco consumption in our study, which was in agreement with the findings which were reported among the medical students of Allahabad and Uttarakhand [6, 7]. Previous studies from India which were conducted among male undergraduate medical students had reported a prevalence of tobacco use of between 8.0%- 50.0% [8-11].

In the current study, the tobacco consumption was found to be significantly higher among the senior students as compared to that among the junior ones. Our findings are coherent to those reported among the medical students of Orissa and Lahore [8, 12].

Nearly 25.27% of the students were smokers, while about 10.47% students were tobacco chewers in our study. Warren et al (2008) reported that in 47 out of 80 global health professional students' survey sites around the world, over 20% of the medical students currently smoked cigarettes; and that in 29 of 77 sites, over 10% of the medical students currently used other tobacco products [13]. A higher proportion of the students smoked less than 10 cigarettes

Variables	Total (n=277)
	No. of Students (%)
Smoking habit	
Present	70 (25.27%)
Absent	207 (74.73)
Smokeless tobacco use	
Present	29 (10.47%)
Absent	248 (89.53%)
Quantity of tobacco used in any form per day (No. of cigarettes/ pan masala pouches)	
< 10	54 (19.49)
> 10	38 (13.72)
Non tobacco users	185 (66.79)
Age of initiation (years)	
< 10	14 (5.05)
10-15	35 (12.64)
15-20	28 (10.10)
>20	15 (5.42)
Non tobacco users	185(66.79)
Who offered tobacco for the first time	
Self	39 (14.07)
Friend	38 (13.72)
Seniors	15 (5.42)
Non tobacco users	185(66.79)
Reason for smoking	
Leisure	48 (17.33)
Fun	6 (2.17)
Stress	2 (0.72)
Can't say	14 (5.05)
Non smokers	207(74.73)
Aware that tobacco is injurious to health	
Yes	248 (89.53)
No	29 (10.47)
Want to quit tobacco	
Yes	59 (21.29)
No	26 (9.39)
Can't say	7 (7.61)
Non tobacco users	185(66.79)
Did/Do you suffer from any health problem since you have started consuming tobacco	
Yes	13 (4.69)
No	79 (28.52)
Non tobacco users	185(66.79)

[Table/Fig-2]: Pattern of tobacco use among the students

or chewed less than 10 tobacco pouches (pan masala) per day. A majority of the current smokers smoked less than 10 cigarettes per day, according to the survey which was carried out among undergraduate medical students in Malaysia, India, Nepal, Pakistan, and Bangladesh [10].

In the current study, a majority of the students had initiated the tobacco use themselves or they had been offered tobacco by a friend. Similar trends have been reported among the medical students of Nepal [14]. A higher proportion of the medical students smoked just for fun, as was found in our study. Similar observations were reported in a Delhi study which was conducted among male

college students [15]. Our study revealed that a majority of the students were aware that tobacco was injurious to health and that they wanted to quit tobacco. The quitting of the tobacco use by these future doctors can be beneficial for all, as they are the mentors of the healthcare of the society. About 14.13% of the students had suffered from a health problem since they had started consuming tobacco, as was observed in this study. This was in agreement with the findings of a study which was conducted among the medical students in Bangladesh, where about half of the smokers complained of chronic cough, lack of concentration and a short memory [16]. It is essential to introduce teaching on tobacco dependence and cessation early in the courses of the medical schools, to discourage smoking among the medical students. The tobacco curriculum should continue throughout the entire medical degree, as it is difficult to determine whether this effect directly reflects the students' seniority or age or both [17]. Medical students being role models of the society, should be encouraged to set an example before others by saying 'NO' to tobacco use. These future doctors have an important role to play in the tobacco cessation and prevention efforts.

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