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Original Article

Pattern of Tobacco use among health professional Students in Lucknow, India

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***ABSTRACT*:**
Background: Tobacco is the most important avoidable cause of premature mortality and morbidity in the world. In India Tobacco creates huge healthcare and economic problems. There is an urgent need to face this challenge and curb its use. Regular use of tobacco product is increasing in youth. Tobacco use is a fast growing behavior which is to be observed not only in the general population, but also among health professionals student. **Aim:** the aim of present study was to estimate the prevalence of tobacco use and assess its pattern among dental and medical students. **Method:** An Institution-based cross-sectional study carried among 400 undergraduate dental and medical students attending from Ist Year to internship program at the dental and medical institution of Lucknow. Data were collected using a self-administered close ended questionnaire. **Results:** Prevalence of tobacco use among health professional students were 21.1%(16.9% smokers, 3.3% chewers). it was higher among male than female. Most of tobacco users feel Fatigue, Self-rewarding, Refreshed after taking tobacco. Most of students tried tobacco product in that more than 80% are taking routinely. Most of them given the reason to start tobacco are Curiosity, Stress and Pleasure. Most of them do not have feeling of tobacco product first thing in the morning.15.9% have the habit to use tobacco at night.70% of students getting knowledge about disastrous effect of tobacco from media and class. 80% seen or heard message past 1 month. 95.6% of students says that tobacco product is easily available near college, hostel and home.81.2% of students opinion that dentist has role of in tobacco cessation program .Most of students (78.9%) opinion about tobacco product that it should be completely ban in public place. 71.8% says that tobacco is difficult to quit. **Conclusion:** Tobacco use is increasing among health professional students. While the findings of this study suggest that substance use among the medical students was not alarming. Social influences of tobacco use which are so deeply rooted that even a medical environment failed to curb the deadly habit completely. The institution must be vigilant in monitoring and educating the students about the consequences of tobacco use.
Key words: Tobacco, Medical student**,** Dental student

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INTRODUCTION:
Tobacco use is one of the leading preventable causes of morbidity and mortality around the world. Tobacco, in India creates huge healthcare and economic problems. Tobacco use is the biggest public health tragedy since it is estimated to kill approximately half of its long-term users. The increased use of tobacco is one of the greatest public health threats for the 21st century and the tobacco epidemic is being spread and reinforced through complex mix of factors that transcend national borders. The World Health Organization predicts that tobacco mortality in India may more than 1.5 million annually by 2020.
Oral cancer is an important public health issue. In spite of the known association of major diseases with tobacco, its continued use is very bothersome for both the health professionals and the policy-planners alike.
There is an urgent need to face this challenge and curb its use. This is especially important among the youth as they are more likely to start the habit in their formative years. There is enough evidence to show that a majority of smokers start the tobacco use before 18 years of age 20.
The use of cigarette among boys was from 13.1% to 32.8% and among the girls was from 2.5% to 13.4% in different states. The frequency of smokeless tobacco use among boys was from 35.0% to 52.5% and the girls 26.8% to 47.2% [1].
Regular use of tobacco product is increasing in youth and this has raised the need to determine the number of tobacco users, especially among children and young

people. Tobacco use is a fast growing behavior which is to be observed not only in the general population, but also among health professionals (medical and dental).

Therefore, there is a need to study the attitude regarding tobacco use among the health professionals, which can provide ideas regarding the cause of tobacco use and the prevailing knowledge among the newcomers to the dental and medical profession. Because oral cancer is associated with tobacco use, many cases could probably be prevented with appropriate behavior modification among the youth, which in turn will motivate the other.

OBJECTIVES-

1. Identify the prevalence of tobacco use among Dental and Medical students
2. Assess the knowledge, attitude, and practice regarding tobacco use among dental and medical students

MATERIALS AND METHODS

(a) Study participant: This institution-based cross-sectional design study with quantitative data collection method was carried out among undergraduate medical students attending from Year I to internship program at Medical and Dental institution of Lucknow, India and selection of the institution by random method (lottery)and students enrolled into the study by using Systematic sampling.

(b) **Ethical approval, permission and consent:** This study was reviewed and ethical approval given by the ethical committee of Research cell, King George Medical University, Lucknow. Permission to conduct study was taken from the principal and informed consent was obtained from each participant before data collection.

(c) **Questionnaire:** it was developed by self-administering a predesigned proformas. It contained 25 questions, most of which were closed-ended with pre-coded responses. The questions were divided into four sections: (i) socio-demographic characteristics; (ii) knowledge (iii) attitude (iv) practice. Questionnaire was constructed and administered in English. Prior to administration of questionnaire, the aim and nature of the study was explained to the participant. The questionnaire were pretested, and appropriate revisions were made before data collection.

The questionnaire was administered to the students after achieving permission by the principal. Students were explained the purpose of the study and instructions to respond to the questionnaire. Individual confidentiality of students were ensured so that the students are free to fill the correct information. Students were informed that questionnaires were anonymous and confidential. Names of the students were not mentioned anywhere on the questionnaire and measures were taken to ensure the respect, dignity and freedom of each student participating in the study. Appropriate measures were also taken to ensure confidentiality of information both during and after data collection. The survey was carried out mainly during college time to ensure maximum possible compliance.

(d) **Data collection:** Data were collected through self-administration of the questionnaires after gathering students (which has been selected through Systematic sampling) in the lecture halls and explaining the purpose of the study.

Statistical analysis done by SPSS version 18 software program for analysis.

RESULTS

400 students participated in the study and The final sample included 389 dental and medical undergraduate students. Five filled questionnaires were discarded due to data incompleteness. Six were absent on the day of the data collection The response rate was 97.3%.

The sample includes more male 211 (54.2%) than female 169 (45.8%). The mean age of participants was 19.8 years(S.D. = 2.1). The overall age of the sample ranged from 18 to 31 years, with the majority 333 (85.6%) being between18-25 years. The mean age at which tobacco start was 24.1 yr with minimum age of 18 yr.

Most (97.7%) of the students were married Most students (96.1%) were from urban background and the remaining (3.9%) from rural areas. About 98.3% of the females, compared with 94.3% of males, were from urban backgrounds. With regard to their medical training status, about 31.4% of them were Year I, 22.9% were II, 20.6 were III, 16.2 were IV and 8.9 were in internship program. (Table 1)

Knowledge (Table 2)

Most (53%) of students getting knowledge about disastrous effect of tobacco from media. 81.2% of students opinion that dentist has role of in tobacco cessation program. 95.6% of students says that tobacco product is easily available near college, hostel and home. Most (86.6%) of students have positive opinion (minimal, moderate and profound effect) about Pictographically Representation on tobacco product and 13.4% student opinion no effect. Most of students (80%) seen or heard message past 1 month and 20% of students not seen or heard message.

Attitude (Table 3)

51.7% students thought that smoking cigarettes makes user look less attractive and 37 thought that smoking cigarettes makes no difference on attraction. 72.5% students thought that Gutka user look less attractive and 22.9% thought that Gutka user make no difference look. Most of students (78.9%) opinion about tobacco product that it should be completely ban in public place. 71.8% says that tobacco is difficult to quit. 46% students have opinion that there is no difference in friendship when they use tobacco product and 22.4% have less friends. Most of student's opinion that self motivation is the way to quit tobacco.

Practice (Table 4)

Most of tobacco users feel Fatigue, Self-rewarding, Refreshed after taking tobacco.21.1% of students tried tobacco product in that 18.3% are occasionally and rest of them are taking routinely. Smoking are the commonly use tobacco in users. Most of them given the reason to start tobacco is Curiosity, Stress and Pleasure. Most of them do not have feeling of tobacco product first thing in the morning. Most of student taking tobacco at college time and public place. 31.7% spending more three hundred rupee in a month, 30.5% spend 100-200 rupee in a month. Most (61.1%) of smokeless tobacco user keep tobacco at one place. 15.9% have the habit to use tobacco at night.

Table 1: Socio-demographic characteristics of the students by sex

Characteristics	Male		Female		Total	
	n	(%)	n	(%)	n	(%)
Age in years						
18-25	163	(77.2)	170	(95.5)	333	(85.6)
25 or more	48	(22.8)	8	(4.5)	56	(14.4)
Marital status						
Not married	203	(96.2)	177	(99.4)	380	(97.7)
Married	8	(3.8)	1	(0.6)	9	(2.3)
Background						
Urban	199	(94.3)	175	(98.3)	374	(96.1)
Rural	12	(5.7)	3	(1.7)	15	(3.9)
Medical education status						
Year I	73	(33.5) 49	49	(28.6)	122	(31.4)
Year II	(22.5) 42		40	(23.4)	89	(22.9)
Year III	(19.3) 39		38	(22.3)	80	(20.6)
Year IV	(17.8) 15	(6.9)	24	(14)	63	(16.2)
Internship			20	(11.7)	35	(8.9)

Table 2: Knowledge of students about tobacco (n=389)

Knowledge	n	%
Getting knowledge about disastrous (harmfull) effect of tobacco		
Class room	79(20.3)	
Media	206(53)	
Friend	9(2.3)	
Parent	39	(10)
Different combination	56	(14.4)
Role of dentist in tobacco cessation		
Yes	316	(81.2)
No	14	(3.6)
No idea	59 (15.1)	
Availability of tobacco product?		
Easily available	372	(95.6)
Not easily available	17	(4.4)
Read the content of the tobacco pouch you consumed		
Yes 137 (35.2)		
No 69 (17.7)		
Not answered183 (47.0)		
"Pictographically Representation" on tobacco product effect		
Minimal	140	(36.0)
Moderate	155	(39.8)
Profound	42	(10.8)
No effect	52	(13.4)
During the past 1 month, how many message seen or heard		
> 5	190	(48.8)
<5	119	(30.6)
None	80	(20.6)

Table 3: Attitude of students about tobacco (n=389)

Attitude	n	%
Smoking cigarettes makes user look?		
More attractive	44	(11.3)
Less attractive	201	(51.7)
No difference	144	(37)
Gutka makes user look?		
More attractive	18	(4.6)
Less attractive	282	(72.5)
No difference	89	(22.9)
Banning tobacco product in public place		
Should be banned completely	307	(78.9)
Should not be banned completely	40	(10.3)
Should not to ban it in public places.	42	(10.8)
Difficult to quit?		
Yes	308	(79.2)
No	81	(20.8)
Students who use tobacco product		
have more friends	75	(19.3)
have less friends	87	(22.4)
No difference	179	(46.0)
Not answered	48	(12.3)
Who made you to quit tobacco		
Self motivation	274	(70.4)
Family member	32	(8.2)
Friends	34	(8.7)
Awareness program	49	(12.6)

Table 4. Practice of tobacco user

Practice	n	%
Ever tried any tobacco product (n=389)		
Yes	82	(21.1)
No	307	(78.9)
How often do you take (n=389)		
Occasionally	15	(3.8)
Once in a day	32	(8.2)
4-5 times in a day	19	(4.9)
>6 times a day	16	(4.1)
Tobacco do you use (n=389)		
Smoking	64	(16.5)
Smokeless tobacco	13	(3.3)
Both	5	(1.3)
Feel after taking tobacco (n=389)		
Fatigue	6	(1.5)
Self-rewarding	10	(2.6)
Refreshed	36	(9.3)
Do not feel anything after using tobacco	30	(7.7)
Why did you start tobacco(n=389)		
Curiosity	19	(4.9)
Stress	26	(6.7)
Pleasure	18	(4.6)
Style	14	(3.6)
F/f member using	5	(1.3)
Feeling of tobacco product first thing in the morning (n=389)		

Yes	6	(1.5)
No	74	(19)
Where do you generally take tobacco(n=389)		
Home8 (2.1)		
Friends house 10 (2.6)		
College 24 (6.2)		
Public place28 (7.2)		
Different combination 12 (3.1)		
Money spent on tobacco products (n=389)		
<Rs 50 per month	16	(4.1)
Rs 100-200	25	(6.4)
Rs 200-300 15 (3.8)		
> Rs 300 26 (6.7)		
How do you use gutka or smokless tobacco (n=389)		
Keep one place 11 (2.8)		
Chew & swallow 5 (1.3)		
Rotate in oral cavity	2	(0.5)
Night /sleep with tobacco habit (n=389)		
Yes 13 (3.3)		
No	69	(17.7)

DISCUSSION

It was concluded that a survey of medical students related to the knowledge, attitude and practice of tobacco use, surveys were previously conducted among medical students in the world [2-13]. This study adds to the literature related to the control of the tobacco epidemic and the involvement of health professionals in this public health initiative.

Tobacco has become rising major public health and socio-economic problems worldwide. Recent trends indicate that the use of tobacco have dramatically increased particularly in developing countries.

In this study, of 389 students, more male 211 (54.2%) than female 169 (45.8%). Around 21.1% (16.9% smokers, 3.3% chewers) of the students were tobacco users in some form or another, as compared to 13.7% in the report published by Global Health Professional Survey (GHPS) of India 2005[10]. This shows a slightly higher prevalence of tobacco use among medical students in the present study.

In the present study, 21.1%of the medical students tried tobacco product and most of them were using smoking form and findings were reported by Selokar et al. [11], Lam et al. [12], Alrsheedi et al. [13], Sreerama reddy et al. [14] and Surani et al. [15] with 10.3%, 11.8%, 23%, 31.7% and 40% of students having tried smoking respectively.

In this study, the prevalence of smokeless tobacco ever used was found to be 3.3% (n=13) and In study by Joge et al. [16] Selokar et al. [11] and Surani et al. [15], reported the prevalence of smokeless tobacco was 5.8%, 10% and 11.6% respectively.

In the present study, among the smokers, male were more than female, but in chewers, 100% were male. The GHPS report also shows tobacco use prevalent in male than female[10]

In the present study, 78.9% of the students favored banning the tobacco products in public places. Similar findings were reported by Sychareun et al. [16], Mehrotra et al. [17].

About 78.9% students responded that it should be completely ban in public places, as compared to 90% response in the 2005 GHPS of dental students in India. [10].

This study clearly indicates that tobacco use is becoming a concern among undergraduate health professional students as tobacco tobacco quitting advice come from health professional, make public to become sensitive. The health profession in turn has an ethical obligation to ensure that its practitioners can discharge their duties and responsibilities for the welfare and safety of the population. This problem highly impairs the practice of medicine with reasonable skill and safety to patients. Tobacco consumption has been the main risk factor for chronic diseases such as cancers, chronic lung disease, diabetes and cardiovascular diseases, however; its use has become a growing concern among health professional as well as general public.

LIMITATIONS

The first limitation of our study was that smoking habits and related to risk factors of the students were determined by using self-administrated questionnaire without physiological or biochemical measurements. Thus, the prevalence of tobacco use found in the study, may have been influenced by recall bias (social desirability). Comparing with the literature, the low rate of smoking prevalence could be result from the responders may have underestimated their own smoking behavior because of the idea that health professional should not use. The second limitation was that the type of study design. It is known that the cross-sectional design does not allow for evaluating of causal relationships between tobacco use and potential risk factors associated with them.

CONCLUSIONS

This study has revealed that the magnitude of tobacco use among undergraduate medical students was considerable, although not very high, but lower than the findings of other studies that reported for adolescents and young adults. This study also indicated that tobacco use is significantly associated with friends or parental use of substances. Understanding factors associated with tobacco use is the first step for designing and implementing comprehensive anti- tobacco use interventions that simultaneously prevent multiple risk factors among medical students.

According to our study results, friends' influence was the foremost factor for smoking initiation. Therefore, smoking cessation campaigns should be planned for groups of friends not the individuals. Students should be given more active role in tobacco cessation campaigns and their awareness should be increased. Thus, the students who will be educating the people of the future can be a role model for the society in terms of health promotion.

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