

ORIGINAL ARTICLE

Awareness and Pattern of Tobacco Use among the Medical Students of Government Medical CollegeJanki Bartwal¹, Sadhana Awasthi², Chandra Mohan Singh Rawat³, Anupama Arya⁴¹Resident, ²Associate Professor, ³Professor & Head, ⁴Assistant Professor, Department of Community Medicine, G.M.C. Haldwani, District- Nainital, Uttarakhand, India

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Article Cycle

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Abstract

Introduction: Nearly 6 million people die due to tobacco every year and this figure will increase to 8 million tobacco-attributed deaths per year by 2030 with 80% of them occurring in developing countries. **Objective:** To study the awareness and pattern of tobacco use among the undergraduate medical students of Government Medical College, Haldwani. **Material and Methods:** A Cross-sectional study was conducted among 303 medical students using a predesigned and pretested, semi-structured self-administered anonymous questionnaire. Data was analyzed by using SPSS v 16. **Results:** Among 303 participants, 44(14.5%) were smokers. Majority of the students (97.73%) were more than 20 years of age at the time of initiation of tobacco use. Cigarette smoking was most common form (79.55%) of abuse. Male students were using tobacco significantly higher than that of females ($\chi^2=36.68$). The effect of parental tobacco use on tobacco consumption habits of the users were significantly higher than non-tobacco users ($\chi^2=180.75$). The tobacco consumption was significantly increased among the senior students as compared to that among the juniors ($\chi^2=15.29$). Awareness about harmful effects of tobacco abuse was very high (90.76%) and mainly they got knowledge from media. 84.16% students support ban on tobacco use in public places. **Conclusion:** We can conclude that though the awareness among medical students regarding harmful effects of tobacco use was very high but they got this knowledge mainly from the electronic media, so it is necessary to introduce teaching on tobacco dependence and cessation early in the courses of the medical colleges.

Key Words

Tobacco; Medical Students; Global Adult Tobacco Survey (GATS); Parents; Stress relieve

Introduction

Tobacco use continues to be the leading global cause of preventable death. It kills nearly 6 million people and causes hundreds of billions of dollars of economic damage worldwide each year. Most of these deaths occur in low- and middle-income countries, and this disparity is expected to widen further over the next several decades. If current trends continue, by 2030 tobacco will kill more than 8 million people worldwide each year, with 80% of these premature deaths among people living in low- and middle-income countries. [1] Global Adult Tobacco Survey (GATS) India was conducted in 2009-10 among persons aged 15 years and above and it revealed that about 35% of adults in India use tobacco in some form or the other. [2] The youth in general are more prone to fall prey to this deadly habit, owing to increase in academic pressure and other kinds of stress in life.

Aims & Objectives

To assess the awareness and pattern of tobacco use among the undergraduate medical students.

Methods

The present cross-sectional study was done among undergraduate medical students of Government Medical College, Haldwani in district Nainital of Uttarakhand. The study period was of 3 months duration i.e. from August 2012 - October 2012. Every year 100 students are admitted in an academic session starting from the month of July. Therefore, the total number of undergraduate medical students should be about 500 at one particular time. It was decided to include those students who were present on the day of study and also incomplete forms were excluded from the study, thus only 303 completed questionnaires were used for analysis. The students were briefed about the purpose of the study. Ethical consideration

was obtained from Institutional Ethics Committee. Participation in the study was voluntary and verbal informed consent was taken from the participating students. Students were not required to write their names to ensure confidentiality and to elicit correct responses from them. A predesigned, pretested, semi-structured, self-administered questionnaire was used to collect data. The information was collected regarding age, sex, year of study, age of initiation, cause for initiation, pattern of tobacco use and parental history of tobacco use. Questions regarding the awareness of harmful effects of tobacco, passive smoking, thought of quitting, support on tobacco ban were also asked. The data collected was coded, tabulated and analyzed using Microsoft excel and SPSS v 16. Statistical analysis comprised calculating proportion and the chi-square (χ^2) test with Yates correction was used for testing significance of association. A two tailed p value of <0.05 was considered statistically significant.

Operational Definition

Tobacco user: Those who had use tobacco even once in their lifetime.

Non user: Those who had not use tobacco products in any form even once in their lifetime.

Daily: Those who were showing regular pattern of tobacco use.

Occasional: Those who were showing irregular pattern of tobacco use.

Result

Among 303 participants, 44 were current tobacco users (14.5%). According to [table 1](#), Tobacco use is increasing linearly with years of study in Medical College, that is, this habit was significantly more ($\chi^2=15.29$) in the senior students than among juniors. Use of tobacco was significantly more ($\chi^2=36.68$) among male students (27.15%) as compared to female (1.97%). The effect of tobacco consumption by parent on tobacco users were significantly higher ($\chi^2=180.75$) than non-users.

The majority of tobacco users (97.73%) were more than 20 years of age at the time of initiation of this habit as described in [table 2](#). No students have initiated smoking before age of 16 years. More than three-fourth students (77.27%) were using tobacco daily. Cigarette smoking was most common form (79.55%) of abuse. As regarding causes, two main causes were to relieve stress (45.45%) and use for fun (38.63%). The main source of money was the pocket money (88.64%) received from their parent. However, about two-third (63.64%) of them were willing to quit this habit.

[Table 3](#) describes about awareness regarding harms of tobacco use. Awareness about harmful effects of tobacco abuse was very high (90.76%) among the students and mainly they got knowledge from electronic media (61.39%). About 88.45% students

were aware regarding harmful effects of smoking and 84.16% of them support ban on tobacco use in public places.

Discussion

The prevalence of tobacco use in this study was 14.5%. The studies conducted among undergraduate medical students in different parts of India reported the prevalence of tobacco consumption ranging from 8.7% to 50.7%. [3-14] The diverse geographical and cultural factors may be the reason for such a wide variation.

In the current study, the tobacco consumption was found to be significantly higher among the senior students as compared to that among the junior ($\chi^2=15.29$, $p<0.05$). Our findings are coherent to those reported by Ramakrishna et al [3], Ganesh et al [5], Khan et al [6] and Thankappan et al [13].

The tobacco consumption among female students was lower to that of male in our study. This was statistically significant and the same findings were observed in studies done by Ramakrishna et al [3], Chatterjee et al [4], Basu et al [9] and Thankappan et al [13].

The effect of parental tobacco use on the tobacco consumption habit of the participants was quite evident among its users, which was significantly higher than non-users ($\chi^2 =186.41$). Similar findings were observed in studies done by Ramakrishna et al [3], Ganesh et al [5], Kumari et al [8] and Basu et al [9].

The age of students at initiation of tobacco use was more than 20 years in our study while Selokar et al [14] reported in their study that students started this habit during 16-20 years of age. The cigarette smoking was most common form of tobacco use in the present study, the same pattern was found in study done by Selokar et al [14].

In this study, cause for initiating tobacco use was mainly to relieve stress (45.54%), while in studies done by Ganesh et al [5], Aggarwal et al [7], Kumari et al [8], Basu et al [9], Sharma et al [10] and Selokar et al [14] the peer pressure was observed to be the main cause for initiation. Chatterjee et al [4] reported curiosity as the main cause for initiation of tobacco use.

The duration of tobacco use among majority of students in our study was observed to be between 1-5 years while Selokar et al [14] reported that mostly students were consuming tobacco for more than 3 years.

About 63.64% of tobacco users were willing to quit this habit in our study, while in studies done by Chatterjee et al [4] (67%), Ganesh et al [5] (49.3%), Khan et al [6] (59%) and Aggarwal et al [7] (68.75%) were willing to quit.

High level of awareness (90.76%) about the adverse effect of tobacco consumption in the present study is comparable to the studies done by Khan et al [6] in

Bareilly (89.53%) and Sharma et al [10] in Dehradun (91.8%).

In this study, 84.16% students support ban on tobacco use in public places. Similarly Sharma et al [10] observed that 84.75% students support ban on tobacco use in public place. Mehrotra et al [11] reported that 86.7% students agreed that it should be banned at public places. Mony et al [12] reported in his study that more than 80% favoured ban on tobacco use in public places.

The findings of present study are comparable to that of the study conducted among undergraduate medical students of Saudi Arabia by Al Haqwi et al [15] where the prevalence of tobacco use among the male students were higher than females and this was statistically significant. Also the habit of tobacco consumption increase with seniority. The number of students having awareness about harmful effects of tobacco use and supporting ban on its use in public place is also comparable to our findings.

The study done by Sreeramareddy et al [16] among the medical students of five Asian countries including India reported that prevalence of smoking among males was higher than females in all countries which were statistically significant.

Limitations: The prevalence of tobacco users among undergraduates medical students observed in our study may not give the correct picture, considering the fact only 303 responded out of 500 students. There might be possibility that few tobacco users did not participated despite of being ensuring about their confidentiality of participation. Similarly, in case of female students, considering the fact that tobacco use is still a social taboo in our Indian society, that too by a female may also lead to underreporting by them.

Conclusion

We can conclude, though the awareness among medical students regarding harmful effects of tobacco use was very high but they got this knowledge mainly from the electronic media.

Recommendation

On the basis of our study, it is recommended that as these future doctors have an opportunity to play an important role in the tobacco cessation and prevention efforts in the community, so it is essential to introduce teaching on tobacco dependence and cessation early in the courses of the medical colleges, to discourage smoking among the medical students and to increase awareness regarding all aspects of tobacco use.

Authors Contribution

JB- Concept, Study Design, literature search, data analysis, drafting & revising, SA- Concept, Study Design,

Literature Search, Data Analysis, drafting & revising, CMS Rawat- Concept, Study Design, Drafting & Revising, A Arya- Literature search, Data analysis, drafting & revising.

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Tables

TABLE NO. 1 PROFILE OF THE MEDICAL STUDENTS

Characteristics of students	No. of students (n=303)	Tobacco user n=44(%)	Non Tobacco user n=259(%)	χ ² value p value
Year of study				
1 st year	50	01(2)	49(98)	15.29 p<0.004
2 nd year	92	10(10.87)	82(89.13)	
3 rd year	57	08(14.04)	49(85.96)	
4 th year	42	09(21.43)	33(78.57)	
5 th year	62	16(25.81)	46(74.19)	
Sex				
Male	151	41(25.15)	110(72.85)	36.68 p<0.0001
Female	152	03(1.97)	149(98.03)	
Parent using Tobacco				
Yes	57	41(71.93)	16(28.07)	180.75 p<0.0001
No	246	03(1.22)	243(98.78)	

TABLE NO. 2 PATTERN OF TOBACCO USE AMONG THE MEDICAL STUDENTS

Pattern of Tobacco use	Tobacco users (n=44)	Percentage (%)
Age of initiation(year)		
16-20	01	2.27
>20	43	97.73
Duration of use (year)		
<1	01	2.27
1-5	43	97.73
Frequency		
Occasional	10	22.73
Daily	34	77.27
Type of Tobacco		
Cigarette	35	79.55
Bidi	01	2.27
Both	05	11.36
Others	03	6.82
Cause for initiation of Tobacco use		
To relieve stress	20	45.45
For fun	17	38.63
Peer pressure	04	9.10
To show off	03	6.82
Source of money		
Pocket money	39	88.64
Friends	03	6.82
Others	02	4.54
Want to quit		
Yes	28	63.64
No	16	36.36

TABLE NO. 3 AWARENESS ABOUT HARMFUL EFFECTS OF TOBACCO CONSUMPTION

Awareness about harmful effects of tobacco use	Frequency (N=303)	Percentage (%)
Yes	275	90.76
No	28	9.24
Source of knowledge		
Newspaper	113	37.29
Electronic Media	186	61.39
Others	04	1.32
Awareness about harmful effects of passive smoking		
Yes	268	88.45
No	35	11.55
Ban of tobacco use in public place		
Yes	255	84.16
No	48	15.84