ISSN- O: 2458 - 868X, ISSN–P: 2458 – 8687
National Library of Medicine - ID: 101731606

International Journal of Medical Science and Innovative Research (IJMSIR)
IJMSIR : A Medical Publication Hub
Available Online at: www.ijmsir.com
Volume – 7, Issue – 1, February – 2022 , Page No. : 245 - 251

Prevalence of Tobacco Use in Medical Students in Boys Hostel Government Medical College, Srinagar

[1]Tawheed Ahmad Kulo, Government Medical College, Srinagar

Corresponding Author: Tawheed Ahmad Kulo, Government Medical College, Srinagar

Citation this Article: Tawheed Ahmad Kulo,"Prevalence of Tobacco Use in Medical Students in Boys Hostel Government Medical College, Srinagar", IJMSIR- February - 2022, Vol – 7, Issue - 1, P. No. 245 – 251.

Type of Publication: Original Research Article

Conflicts of Interest: Nil

Abstract

Objectives

Primary Objective: To determine the prevalence of tobacco use among medical students in Boys Hostel Government Medical College, Srinagar.

Secondary Objectives: To assess the association between selected demographic factors, exposure to secondhand smoke at home and workplace, quit attempts, and exposure to pro-tobacco and anti-tobacco advertisements.

Materials and Methods: The study was carried out using the Global Adult Tobacco Survey (GATS) Questionnaire, which was administered to the students in their rooms in the hostel. All participants were males. Response rate was 86.4%.

Results: 29% of students that participated in the study were found to be ever tobacco users. 20.4% were current tobacco users and 8.6% had smoked tobacco in the past. Cigarette smoking was the only form of tobacco use present among the students.

Conclusion: Tobacco use is highly prevalent among medical students in Boys Hostel Government Medical College, Srinagar. Novel strategies are needed to curb tobacco use in medical students.

Keywords: Tobacco, Smoking, Students, Prevalence, Government Medical College, Srinagar.

Introduction

Smoking is the most common form of addiction worldwide and is by far the largest preventable cause of morbidity and premature mortality[1].Tobacco use in the form of smoking is a direct cause of health related conditions such as Chronic Obstructive Pulmonary Disease (COPD) and Lung cancer, and is associated with an increased risk for cardiovascular diseases and metabolic syndrome. Cigarette smoking causes about 80% of all deaths due to Chronic Obstructive Pulmonary Disease (COPD) [2] and 90% of all deaths due to lung cancer[2]. It is associated with an increased risk for coronary heart disease (25 times), stroke (2-4 times), and hypertension[2, 3]. Smoking causes diminished overall health, increased absenteeism from work, and increased healthcare utilization and cost[2].

Global Adult tobacco Survey (GATS) was developed to provide a global standard for consistent monitoring of adult tobacco use. GATS is designed to provide national and subnational estimates on tobacco use, exposure to secondhand smoke and quit attempts among adults across countries to design, implement and evaluate tobacco control and prevention programs. Global Adult Tobacco Survey (GATS) also assists countries to fulfill their obligations under the WHO Framework Convention on Tobacco Control (FCTC) to generate comparable data

within and across countries[4]. : The following definitions were used pertaining to the questionnaire:

-"DAILY" was using at least one tobacco product every day or almost every day over a period of one month or more.

-Rare instances of tobacco use or experimental tobacco use were counted in the "NOT AT ALL" category.

According to GATS-2 (2016-2017), 19% men and 2% women currently use tobacco in India[4]. Overall 10.7% adults currently smoke tobacco[5]. Smokeless tobacco use prevalence in all adults is estimated at 21.4% and 28.6% adult population currently uses tobacco (smoked and smokeless tobacco) [4].

Health professionals play an important role in patient education regarding the hazards of tobacco use. Counseling by health professional serves as strong motivator for people to quit smoking besides discouraging non-smokers from taking up smoking. Health professionals could play a significant part in future tobacco control policies aimed at reducing tobacco use and consequently tobacco related deaths in the community. For these measures to be effective health professionals should themselves be non-smokers. Medical students, being the future healthcare professionals, are an important target of tobacco use prevention programs. They can educate people about the hazards of tobacco use, support anti-tobacco policies, and influence national and global tobacco control efforts.

The current study is aimed at finding out the prevalence of tobacco use among medical students in the Boys Hostel Government Medical College, Srinagar. Information from the study could help devise strategies and frame policies to prevent tobacco use in the target population.

Methodology

Study Design: The present study was a cross-sectional descriptive study.

Pilot Study: A Pilot Study was carried out by distributing questionnaires among 15 students. The data from the pilot study was fed into a personal computer and analyzed using Microsoft Excel 2010.

Study Setting: The study was carried out in Boys Hostel Government Medical College, Srinagar.

Study Duration: The study was carried out during October-December 2018.

Study Population: Students from all undergraduate professional years (1st to 4th) and interns were eligible for inclusion in the study and students present at the time of questionnaire distribution were included.

Study Tools: The study was carried out using the Global Adult Tobacco Survey (GATS) Questionnaire adapted in this case for applicability to the target population. The questionnaire comprised of twenty questions evaluating students for present and past smoked and smokeless tobacco use, exposure to secondhand smoke at home and workplace, noticing anti-tobacco and pro-tobacco advertisements, quit attempts by current smokers, daily cigarette consumption of current smokers, physician advice on smoking cessation, and last cigarette purchase quantity and cost.

Data Collection: The questionnaires were randomly distributed among the students in their rooms. The questionnaires were collected over the next 2-3 days and checked for completeness at the time of collection. In total 176 questionnaires were distributed. The response rate was 86.4% with 152 students completing the questionnaire.

Statistical Analysis: The collected data was entered into a personal computer for analysis using Microsoft Excel 2010. Overall prevalence of present and past tobacco use

was estimated using the "countif" function. Comparative assessment of data on the basis of age, professional year, and exposure to secondhand smoke was done.

Ethical Considerations: The questionnaire employed in the study was adapted from the Global Adult Tobacco Survey (GATS) Questionnaire, authored by the Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO). Extracts of World Health Organization (WHO) information can be used for private study or educational purposes without permission[6]. A short description about the questionnaire and the purpose of study was given before handing the questionnaires. Assurances as to the anonymity and confidentiality of data were given.

Results

152 students participated in the study. The majority of the respondents were of the age group 19-25 years (94.7%). The mean age of participants was 22 years. All of the respondents were males. No females were included in the study. The number of students from 1st prof. was 7, from 2nd prof. 38, from 3rd prof. 42, and 45 were from the 4th prof. 20 participants were interns. The students belonged to different parts of Jammu and Kashmir.

Smoking was the only form of tobacco use seen in the participants. All tobacco users were using manufactured cigarettes. The prevalence of current tobacco use among the students was found to be 20.4%(90% C.I= 8.6% to 32.2%). Of these 61.3% were current daily smokers and 39.7% were current less than daily smokers. 2.8% current less than daily smokers had smoked daily in the past. 10.7% current non-smokers had smoked tobacco in the past with 46% daily and 54% less than daily smokers. The proportion of ever smokers was 29%.

The prevalence of smoking was highest in interns (35% current smokers) and lowest in 1st year students (0%). In students from other professional years the prevalence was 10.5% in 2nd year, 26.7% in 3rd year, and 20% in 4th year students.

No age-related pattern could be seen in the prevalence of current tobacco use in students of different ages. The percentage prevalence was 0% in 19 year old, 0% in 20 year old, 38.9% in 21 year old, 22.7% in 22 year old, 21.7% in 23 year old, 33.3% in 24 year old 27.2% in 25 year old students.

Table 1: Detailed Overall Smoking Prevalence and Status (n=152)

Smoking Status	Number	Percentage
Current tobacco smoker	31	20.4%
Daily smoker	19	12.5%
Occasional Smoker	12	7.9%
Occasional smoker, former daily	3	2%
Occasional smoker, never daily	9	5.9%
Current non-smoker	121	79.6%
Former smoker	13	8.5%
Former daily	6	3.9%
Former occasional smoker	7	4.6%
Never Smoker	108	71%

Table 2: Current smokers, by age

Age (years)	Number of Students	Current Smokers	Percentage
19-21	48	8	16.7%
22-24	85	18	21.2%
25-28	19	5	26.3%

Table 3: Current Smokers, by Professional year

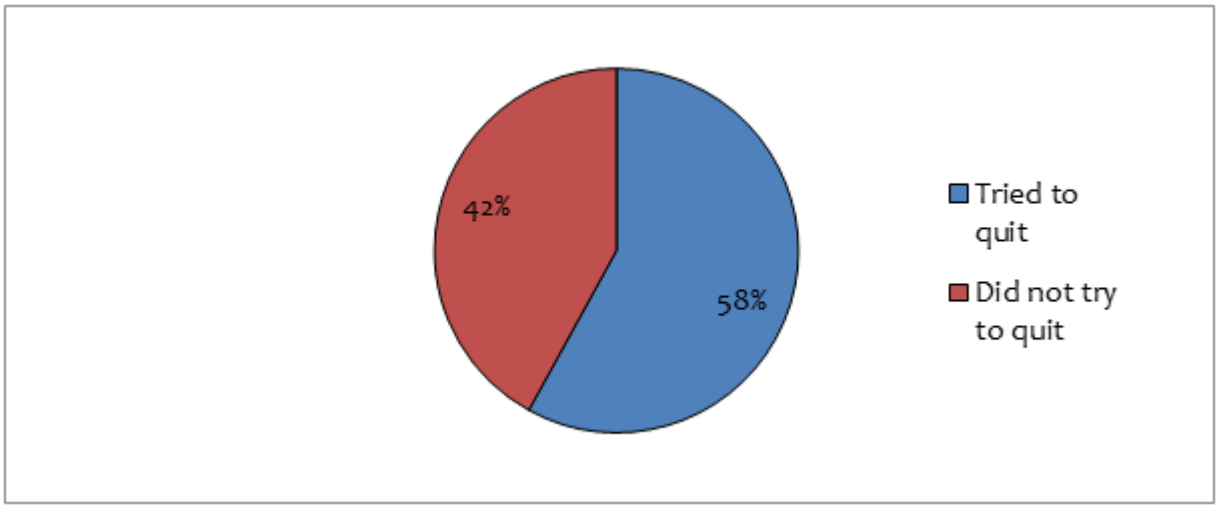
Professional Year	Number of Students	Current Smokers	Percentage
1st Year	7	0	16.7%
2nd Year	38	4	21.2%
3rd Year	42	11	26.3%
4th Year	45	9	20%
Internship	20	7	35%

Table 4: Exposure to Secondhand Smoke at Home

Category	Number of Students	Students exposed to Secondhand Smoke at Home	Percentage
Smokers	31	17	54.8%
Non-smokers	114	40	35.1%
Overall*	145	57	44%

*"Don't know" responses were not included

Figure 1: Quit attempts by Current Smokers in the last 12 months



The average number of cigarettes smoked per day was 5 units with 35.5% smokers using <1 unit/day, 3% smoking 1-3 units/day, 29% smoking 4-6 units/day, 19.4% smoking 6-10 units/day and 13% smoking >10 units/day. 58% of current smokers had tried to quit smoking in the last 12 months. 14.3% of those who

visited a health care provider in the last 12 months had been advised to quit smoking.

44% of the participants were exposed to secondhand smoke at home. Secondhand smoke exposure at home was higher for current smokers (54.8%) as compared to current non-smokers (35.1%). 41.6% students were exposed to secondhand smoke at workplace.

All current tobacco users had noticed anti-cigarette warnings on cigarette packages and 58% had been made to think about quitting on seeing the warnings.

41.4% students had noticed anti-cigarette information on newspapers and magazines, and 55.9% on television in the past 30 days. 31.6% students had noticed cigarette advertising in stores and 2% students had seen some form of cigarette promotion.

The average last cigarette purchase quantity was 7.7 units and the average last cigarette purchase cost was 33 rupees.

Discussion

High prevalence of cigarette smoking among medical students

According to GATS-2 (2016-2017), the prevalence of tobacco smoking in adults in India is 10.7% with a significantly higher prevalence in men (19%). In the state of Jammu and Kashmir, prevalence of tobacco smoking is 20.8% in individuals greater than 15 years of age. The prevalence of tobacco smoking in medical students of Boys Hostel Government Medical College, Srinagar is 20.4%, which is higher than the prevalence of tobacco smoking in men in India and comparable to adult smoked tobacco use in J&K. The prevalence of tobacco smoking was found to be higher in the students of higher standards. The smoked tobacco use was highest in interns (35%) and lowest in 1st year students (0%). This suggests that at least some of the students start smoking after joining the medical school.

Exposure to secondhand smoke

44% students were exposed to secondhand tobacco smoke at home and 41.6% students at workplace. Exposure to secondhand tobacco smoke at home was associated with a higher prevalence of current smoked tobacco use[1].

Exposure to anti-tobacco and pro-tobacco advertisements

More students had noticed anti-tobacco advertisements on T.V (55.9%) than on newspapers or magazines (41.4%). Electronic media are an important means of creating awareness about the hazards of tobacco use in the general population. Anti-tobacco programs should involve use of electronic media (Radio & T.V) and internet (Facebook, YouTube, Twitter etc.) as they provide easy access to a large part of the population (including adolescents and adults) along with the ease of implementation which they afford. Anti-tobacco warnings on cigarette packages are very effective in disseminating information about hazards of tobacco use besides serving as a reminder for those who are already aware. Increasing the area carrying anti-tobacco warnings on cigarette packages and limiting the sale and manufacture of tobacco products are some of the steps that could be taken to reduce tobacco use in the community.

Cigarette advertisements and promotions are prohibited in India according to The Cigarette and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade & Commerce, Production, Supply and Distribution) Act, 2003 or COTPA, 2003[7]. In spite of this, 31.6% students had noticed cigarette advertising in stores during the past 30 days and 2% had been exposed to some form of cigarette promotion during the same period of time. These figures suggest inadequate implementation of anti-tobacco acts and underscore need

for improved surveillance regarding pro-tobacco advertisements.

Need for novel strategies to curb tobacco use

Educating people about the hazards of tobacco use forms the cornerstone of most anti-tobacco programs, policies and campaigns. Medical students and health professionals are thought to be among the best educated and most intelligent members of the society. The undergraduate training program curriculum for medical students (M.B.B.S) involves knowing about the dangers of tobacco use in a very comprehensive manner at various stages during the course. These factors taken into consideration, the prevalence of tobacco use among medical students in the present study is, nonetheless, about the same as that of general population. The findings from the study emphasize the need for coming up with novel strategies to prevent tobacco use in medical students.

Some of the strategies that could be used include:

- A ban on all marketing of tobacco products[8].
- A complete ban on sale of tobacco products over a specified period of time[8].
- Providing easy access to counseling and nicotine replacement therapy.
- Education about de-addiction programs.
- Training programs for medical professionals related to counseling of tobacco users.

Conclusion

The present study is a descriptive cross-sectional study on the prevalence of tobacco use among medical students in Boys Hostel Government Medical College, Srinagar, using the Global Adult Tobacco Survey Questionnaire. The questionnaire consisted of twenty questions evaluating various parameters linked with tobacco use.

From the study, it can be concluded that tobacco use in the form of cigarette smoking is highly prevalent (20.4%) in medical students in Boys Hostel Government Medical College, Srinagar. Most of the current smokers are daily smokers (61.2%). Smoking is the only form of tobacco use present in the target population. Smoking prevalence is most common among interns (35%) and lowest among 1st year students. The average daily cigarette consumption is 7.7 units /day. Exposure to secondhand smoke at home is associated with a higher prevalence of smoking (58.4% vs. 35.1%).

Medical students are expected to know and understand the harmful effects of cigarette smoking better than other people of the community, yet the prevalence of smoking in students in the present study is about the same as that of general population. Keeping in view the hazardous effects of smoking on overall health, the disease it causes and is associated with, and the position that health professionals hold as role models for health-related practices in the general population, active efforts are needed to reduce cigarette use in medical students. Mere knowledge about the hazards of tobacco use is not enough to prevent people from using tobacco. Novel strategies are needed to reduce the prevalence of smoking in medical students.

Reference

1. Meena R, Meena S, Mittal D, Meena N. Study of tobacco use and related factors among adolescent students of secondary school in south-eastern region of Rajasthan, India. Int J Community Med Public Health 2017; 4; 1661-7.
2. U.S. Department of Health and Human Services. The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014

[accessed 2018 Dec 28]. Available from: https://www.sdc.gov/tobacco/data_statistics/sgr/50th-anniversary/index.htm

3. U.S. Department of Health and Human Services. How Tobacco Smoke Causes Disease: What It Means to You. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2010 [accessed 2018 Dec 28]. Available from: https://csc.gov/tobacco/data_statistics/sgr/2010/consumer_booklet/index.htm
4. World Health Organization (WHO). Tobacco questions for surveys [Internet]. Geneva: World Health Organization, 2018 [accessed 2018 Dec 30]. Available from: https://www.who.int/tobacco/publications/surveillance/tqs/en/
5. Ministry of Health & Family Welfare Global Adult Tobacco Survey Fact Sheet, India 2016-2017. India. Department of Health and Family Welfare [accessed 2018 Dec 28]. Available from https://mohfw.gov.in/node/3237
6. World Health Organization. Permissions and licensing [Internet]. Avenue Appia 20 1202 Geneva: World Health Organization, 2018 [accessed 2018 Dec 30]. Available from: https://www.who.int/about/licensing/en/
7. Government of India: The cigarettes and Other Tobacco Products (Prohibition of advertisement and Regulation of Trade and Commerce, Production, Supply and distribution) Act, 2003.
8. Chung-Hall J, Fong G, Craig L. Smokers' support for tobacco endgame measures in Canada: findings from the 2016 International Tobacco Control Smoking and Vaping Survey [Internet]. Waterloo: Canadian Medical Association Journal; 2016 Sep 28 [Accessed 2018 Dec 30]. Available from: http://cmajopen.ca/content/6/3/E412.full