

Original Research Article

KNOWLEDGE ABOUT TOBACCO'S HEALTH EFFECTS, AND ATTITUDES TOWARDS TOBACCO USE AMONG 1ST YEAR MBBS STUDENTS

Suhas M K¹, Shivaraj B M², Rohith V³, Shashank J⁴, Shashikanth⁵, Manoj⁶

¹Assistant Professor, Department of Anaesthesiology, A J Institute of Medical Sciences & Research Centre, Mangaluru, India.

^{2,4}Associate Professor, Department of Community Medicine, Chikkamagaluru Institute of Medical Sciences, Chikkamagaluru, India.

³Associate Professor, Department of Pharmacology, Chikkamagaluru Institute of Medical Sciences, Chikkamagaluru, India.

⁵Assistant Professor, Department of Community Medicine, Chikkamagaluru Institute of Medical Sciences, Chikkamagaluru, India.

⁶Tutor, Department of Community Medicine, Chikkamagaluru Institute of Medical Sciences, Chikkamagaluru, India.

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Corresponding Author:

Dr. Shivaraj B M,
Associate Professor, Department of
Community Medicine, Chikkamagaluru
Institute of Medical Sciences,
Chikkamagaluru, India.
Email: bmsivaraj2005@gmail.com

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ABSTRACT

Background: Teaching about the effects of the use of tobacco and its related diseases is essential for undergraduate medical students, especially to counter the deadly effects of the same. Physicians occupy a key position in this regard, as they are uniquely placed to lead smoking cessation programs in the community. In most developed countries where tobacco use has decreased, doctors often have set an example by being the first group to quit tobacco use.

Objectives: To evaluate knowledge regarding the health effects of tobacco use and also to study their attitudes and practice towards tobacco use and cessation.

Materials and Methods: The present Descriptive cross-sectional study was carried out at Department of Community Medicine at CIMS, Chikkamagaluru involving first MBBS students of the 2024 batch at CIMS, Chikkamagaluru.

Results: The mean age of the study population was 9.46±0.8 years. Gender wise distribution showed that 54% were males and 46% were females. Distribution according to knowledge of tobacco use revealed that 96.4% were having the knowledge about smoking as leading cause of lung cancer. 96.4% were aware that Smoking is a risk factor for coronary heart disease. 89.2% Knew about the harmful chemicals in tobacco smoke. 85.6% were aware of the dangers of smokeless tobacco. 54.7% opined that smoking cessation is possible. 3.6% told that they received formal training on smoking cessation.

Conclusion: Prevalence of smoking in our study was 3.6%. Prevalence of second-hand smoke (passive smoking) at home was 10.1%. 96.4% were having the knowledge about smoking as leading cause of lung cancer. 96.4% were aware that Smoking is a risk factor for coronary heart disease. Majority had positive attitude towards quitting of tobacco.

Keywords: Prevalence, tobacco, smoking, knowledge, practice.

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 death worldwide.^[2] An estimated 4.9 million deaths occurring 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 developing countries. 3 Medical students who are future doctors have an important role to be played in tobacco cessation and

prevention efforts. On the contrary, a vast body of evidence shows that prevalence of tobacco smoking is fairly high among medical students. Ironically medical students themselves lack adequate knowledge about smoking-related diseases and tobacco cessation techniques.^[4]

The general negative impact of tobacco smoking on health is significant. Currently, the mortality due to tobacco smoking has been estimated to be more than 5 million deaths annually,^[5] which is expected to double by 2020.^[6] This significant impact is not only due to morbidity and mortality, but also attributed to

the social and the economic cost of smoking.^[7] Reports have indicated that the real impact of tobacco smoking could be underestimated because of high level of exposure of “second hand” smoke, increased smoking among youths and the increase in smoking among nonsmokers.^[8]

Expert reviews have suggested that undergraduate medical students should be equipped with knowledge and skills to promote smoking cessation skills among their future patients.^[9-11] However, a worldwide medical school survey on teaching about tobacco has reported that tobacco smoking issues are usually taught non-systematically as and when the topic arose. The survey also reported that only a tenth of surveyed medical schools had a specific tobacco module. Another tenth of medical schools located mainly in Africa and Asia do not teach about tobacco issues.^[12]

Hence the present study was carried out with the objective to study the knowledge, attitude and practices of tobacco use in medical students.

Objectives

- To evaluate knowledge regarding the health effects of tobacco use.
- To study their attitudes and practice towards tobacco use and cessation

MATERIALS AND METHODS

Study Design

Descriptive cross-sectional study using a structured, pre-tested questionnaire.

Study Setting: CIMS, Chikkamagaluru

Study Population: All MBBS students of the 2024 batch at CIMS, Chikkamagaluru.

Study Period: December 2024

Sampling Method

Complete enumeration (all eligible students will be invited to participate).

Study Tool

A structured, anonymous, and confidential questionnaire via Google Forms, consisting of the following sections:

- **Demographics:**

Age, gender, course, year of study, living arrangement (hostel/family).

- **Tobacco Use Patterns:**

Current and past use of smoking and smokeless tobacco, frequency, type, and age of initiation.

- **Exposure to Passive Smoking**

Exposure at home and in public places.

- **Knowledge Assessment**

Awareness of tobacco-related health risks including lung cancer, heart disease, harmful chemicals, and smokeless tobacco dangers.

- **Attitude Evaluation:**

Beliefs regarding public smoking bans, cessation possibility, and reasons for initiation.

- **Cessation Awareness and Support:**

Prior attempts to quit, awareness of cessation techniques including nicotine replacement therapies, and willingness to receive support.

Statistical Analysis

Data was collected by using a structure proforma. Data entered in MS excel sheet and analysed by using SPSS 24.0 version IBM USA. Qualitative data was expressed in terms of proportions. Quantitative data was expressed in terms of Mean and Standard deviation. A p value of <0.05 was considered as statistically significant whereas a p value <0.001 was considered as highly significant.

RESULTS

Table 1: Demographic information of the study population

		Frequency	Percent
Age group	<20	120	86.3
	21-30	19	13.7
	Total	139	100
		Frequency	Percent
Gender	Female	64	46.0
	Male	75	54.0
	Total	139	100
		Frequency	Percent

We included total 139 MBBS students in our study. Majority of them were less than 20 years age group i.e. 86.3%. 13.7% were from 21-30 years age group.

Gender wise distribution showed that 54% were males and 46% were females. The mean age of the study population was 19.46±0.8 years.

Table 2: Distribution according to practices of tobacco use

		Frequency	Percent
Do you currently smoke tobacco	No	134	96.4
	Yes	5	3.6
	Total	139	100
		Frequency	Percent
Type of tobacco product	Cigarette	5	3.6
	Nicotine patches	2	1.4
		Frequency	Percent
No		125	89.9

Have you been exposed to second hand smoke (passive smoking) at home?	Yes	14	10.1
	Total	139	100
		Frequency	Percent
Have you been exposed to second hand smoke in public places?	Maybe	15	10.8
	No	53	38.1
	Yes	71	51.1
	Total	139	100

Out of 139 students, only 5 were currently smoking tobacco leading to the prevalence of smoking as 3.6% in our study. When asked about type of tobacco product, 5 were using cigarettes i.e. 3.6% and 2 using

nicotine patches i.e. 1.4%. 14 students were exposed to second hand smoke (passive smoking) at home leading to a 10.1%. 51.1% exposed to second hand smoke in public places.

Table 3: Distribution according to knowledge of tobacco use

Knowledge about Tobacco use	Frequency	Percent
Smoking causes lung cancer	134	96.4
Smoking is a risk factor for coronary heart disease?	134	96.4
Know about the harmful chemicals in tobacco smoke?	124	89.2
Aware of the dangers of smokeless tobacco?	119	85.6

Distribution according to knowledge of tobacco use revealed that 96.4% were having the knowledge about smoking as leading cause of lung cancer. 96.4% were aware that Smoking is a risk factor for

coronary heart disease. 89.2% Knew about the harmful chemicals in tobacco smoke. 85.6% were aware of the dangers of smokeless tobacco.

Table 4: Distribution according to attitude towards tobacco use

Attitude about Tobacco use	Frequency	Percent
Smoking should be banned in all enclosed public places?	125	89.9
Do you think that smoking cessation is possible?	76	54.7
Have you ever received formal training on smoking cessation?	5	3.6
Are you aware of nicotine replacement therapies?	48	34.5
Would you like to receive support to quit smoking?	18	12.9

Distribution according to attitude towards tobacco use revealed that 89.9% were agreed that smoking should be banned in all enclosed public places. 54.7% opined that smoking cessation is possible. 3.6% told that they received formal training on smoking cessation. 34.5% are aware about nicotine replacement therapies/ 12.9% told that they are in need of support to quit smoking.

DISCUSSION

We included total 139 MBBS students in our study. Majority of them were less than 20 years age group i.e. 86.3%. 13.7% were from 21-30 years age group. The mean age of the study population was 19.46±0.8 years. Gender wise distribution showed that 54% were males and 46% were females. (Table 1) Iyer K. et al,^[14] in their study included 512 interns, representing a 73.4% response rate. The mean age of the interns was found to be 23 ± 0.7 years. Boopathirajan R et al,^[15] in their study included 479 third year medical college students at four medical colleges. The mean age of study participants was 20.46 years, with 200 (41.8%) males and 279 (58.2%) females.

Out of 139 students, only 5 were currently smoking tobacco leading to the prevalence of smoking as 3.6% in our study. When asked about type of tobacco product, 5 were using cigarettes i.e. 3.6% and 2 using nicotine patches i.e. 1.4%. 14 students were exposed to second hand smoke (passive smoking) at home

leading to a 10.1%. 51.1% exposed to second hand smoke in public places. (Table 2)

Iyer K. et al,^[14] reported that the prevalence of current smokers of cigarette was 32.1%. 19.7% medical and 24% dental interns reported exposure to second hand smoke at place where they live. Boopathirajan R et al,^[15] in their study observed that the proportion of students who ever tried cigarette smoking was found to be 10.9% (males, 23.5%; females, 1.8%). The prevalence of current cigarette smoking among students was found to be 4.8% (males, 11.5%; females, 0%) which is consistent to our findings. The proportion of students using smokeless tobacco on college premises during the past year was 0.6%. The prevalence of exposure to tobacco smoke at home among students was found to be 34.2% (males, 49.5%; females, 23.3%). The prevalence of exposure to tobacco smoke at public places was found to be 50.3% (males, 58.5%; females, 44.4%).

Findings were reported higher by Selokar et al¹⁶ and Lam et al,^[17] with 10.3% and 11.8% of students having tried cigarette smoking, respectively. Alrashedi et al,^[18] Sreeramareddy et al,^[19] and Surani et al,^[20] reported that 23%, 31.7% and 40% of students tried smoking, respectively. In the present study, among male medical students, one-fourth had ever smoked cigarettes compared with 1.8% among female medical students.

Distribution according to knowledge of tobacco use revealed that 96.4% were having the knowledge about smoking as leading cause of lung cancer.

96.4% were aware that Smoking is a risk factor for coronary heart disease. 89.2% Knew about the harmful chemicals in tobacco smoke. 85.6% were aware of the dangers of smokeless tobacco. (Table 3) Distribution according to attitude towards tobacco use revealed that 89.9% were agreed that smoking should be banned in all enclosed public places. 54.7% opined that smoking cessation is possible. 3.6% told that they received formal training on smoking cessation. 34.5% are aware about nicotine replacement therapies/ 12.9% told that they are in need of support to quit smoking. (Table 4)

Boopathirajan R et al,^[15] in their study observed that most students agreed that smoking should be banned in restaurants (94.6%), in public places (93.7%) and in discos/bars/pubs (73.9%). Many students, 75.6% and 95.2%, indicated that health professionals should serve as a role model for patients and receive specific training on cessation techniques, respectively. The proportion of students who currently wanted to quit smoking cigarettes was 26.9%. Among the students who tried smoking/smokeless tobacco (n = 52), 29.8% and 34.6% wanted to quit smoking cigarettes and tried to stop smoking, respectively.

CONCLUSION

Prevalence of smoking in our study was 3.6%. Prevalence of second-hand smoke (passive smoking) at home was 10.1%. 96.4% were having the knowledge about smoking as leading cause of lung cancer. 96.4% were aware that Smoking is a risk factor for coronary heart disease. Majority had positive attitude towards quitting of tobacco.

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REFERENCES

- Ezzati M, Lopez AD, Rodgers A, Vander HS, Murray CJ: Selected major risk factors and global and regional burden of disease. *Lancet* 2002, 360:1347-1360.
- World Health Organisation: WHO report on global tobacco epidemic 2008: the MPOWER package. Geneva Switzerland; 2010.
- Peto R: Mortality from smoking in developed countries 1950-2000: indirect estimation from National Vital Statistics. Oxford: Oxford University Press; 2010.
- Richmond R: Teaching medical students about tobacco. *Thorax* 1999, 54:70-78.
- . WHO Reports on the global tobacco epidemic, 2008 The MPOWER package 2008 Geneva Available from: www.who.int/tobacco/mpower
- Global Youth Tobacco Survey Collaborating Group. Differences in worldwide tobacco use by gender: Findings from the Global Youth Tobacco Survey *J Sch Health*. 2003; 73:207-15
- McGinnis JM, Foege WH. Mortality and morbidity attributable to use of addictive substances in the United States *Proc Assoc Am Physicians*. 1999; 111:109-18
- Warren CW, Jones NR, Peruga A, Chauvin J, Baptiste JP, Costa de Silva V, et al Global youth tobacco surveillance, 2000-2007 *MMWR Surveill Summ*. 2008; 57:1-28
- Chatkin J, Chatkin G: Learning about smoking during medical school: are we still missing opportunities? *Int J Tuberc Lung Dis* 2009, 13:429-437
- Richmond R: The process of introducing a tobacco curriculum in medical school. *Respirology* 2004, 9:165-172.
- Richmond R, Taylor R: Global dissemination of a tobacco curriculum in medical schools. *Int J Tuberc Lung Dis* 2006, 10:750-755.
- Richmond RL, Debono DS, Larcos D, Kehoe L: Worldwide survey of education on tobacco in medical schools. *Tob Control* 1998, 7: 247-252.
- Warren CW, Jones NR, Chauvin J, Peruga A: Tobacco use and cessation counselling: cross-country. Data from the Global Health Professions Student Survey (GHPSS), 2005-7. *Tob Control* 2008, 17:238-247.
- Iyer K, Krishnamurthy A, Krishnan L, Kshetrimayum N, Siddique S, Moothedath M. Tobacco-Use Prevalence, Exposure, Attitudes, Behaviour/Cessation, Curriculum among Health Professional Students in Mangalore City, Karnataka, India. *Journal of Lifestyle Medicine*. 2019 Jul 31;9(2):137.
- Boopathirajan R, Muthunaryanan L. Awareness, attitude and use of tobacco among medical students in Chennai. *Journal of lifestyle medicine*. 2017 Jan 31;7(1):27.
- Selokar DS, Nimbarte S, Kukde MM, Vasant VW. Tobacco use amongst the male medical students, Wardha, central India. *Int J Biol Med Res* 2011;2: 378-81.
- Lam TS, Tse LA, Yu IT, Griffiths S. Prevalence of smoking and environmental tobacco smoke exposure and attitudes and beliefs towards tobacco control among Hong Kong medical students. *Public Health* 2009;123: 42-6.
- Alrsheedi M, Haleem A. Knowledge, attitude and behavior of medical and dental students towards smoking habit In Saudi Arabian universities 'a comparative study'. *Int Dent J Stud Res* 2012;1:1-16.
- Goyal SR, Kiran U, Srinath D, Nageswari AD, Goyal D. Smoking scenario amongst medical and nonmedical youth: Fads, facts and effects. *Lung India* 2013;30(5): 5-16.
- Surani NS, Pednekar MS, Sinha DN, Singh G, Warren CW, Asma S, Gupta PC, Singh PK. Tobacco use and cessation counseling in India-data from the Global Health Professions Students Survey, 2005-09. *Indian J Cancer* 2012;49:425-30.