

# Tobacco use among undergraduates of a private medical college in Mangalore- Knowledge, Attitude and Practice

Dr.Aruna Yadiyal\*, Dr.Shobhana Mittal\*\*, Dr Nandita Shenoy\*, Dr Ashima Chopra\*\*\*, Dr Prasanna Mitra\*

\* Associate Professor, Department of Psychiatry, Father Muller Medical College, Mangalore

\*\* Post Graduate Resident, Department of Psychiatry, Father Muller Medical College, Mangalore

\*\*\* BDS, Manipal College of Dental Sciences, Mangalore.

**Abstract- Background:** Tobacco surveillance among medical students offers an opportunity to assess the preparedness for tobacco control among future health care professionals in India.

**Objective:** To study the awareness and pattern of tobacco use among Undergraduate Medical Students of a private medical college in Mangalore, Karnataka.

**Material and Methods:** A Cross-sectional study was conducted among 102 medical students using a predesigned and pretested, semi-structured, self-administered anonymous questionnaire. Data was analyzed by using SPSS v 16.

**Results:** Despite of being aware about its harmful effects, nearly one fifth of the students had used tobacco. Majority of them were aged between 19-21 years with the age of initiation being less than 18 years. Cigarette smoking was the most common form of abuse among these students. It was alarming to note that almost all students (98%) reported that they had not been trained in tobacco cessation as a part of their curriculum. Lack of training in tobacco cessation was also cited as the primary reason why the students did not feel confident to impart psycho-education to patients regarding tobacco use or help them quit the habit.

**Conclusion:** The study reflects an alarming situation with tobacco use among medical students being an issue of grave concern. This destructive behavior not only causes personal harm, but also reduces future health professionals' ability to motivate or counsel the patients effectively. The lacunae in imparting education about tobacco use, as well as inculcating life skills for coping with stress, need urgent attention.

**Key Words:** Tobacco, Smoking, Undergraduates, Medical Students

## I. INTRODUCTION

Tobacco use and health are intimately related and thus, smoking among future health care personnel such as medical students is an important issue<sup>[1]</sup>. Tobacco usage is habit forming and potentially addictive. Tobacco use has been associated with several diseases, morbidity and mortality. World-over, tobacco-related diseases kill over 5 million people annually. In developing countries, the situation is even worse. This habit is typically initiated during early youth. This age group requires constant monitoring. Timely appropriate action targeting the youth is needed to curtail usage of tobacco.

As emphasized in the preamble of the World Health Organization (WHO) Framework Convention on Tobacco Control: "one of the groups in the best position for controlling

tobacco use is health care professionals". Health care professionals have an important role to play in the fight against tobacco. As individuals, they can help educate the population. As community members, they can support anti-smoking policies. At a national level, they can influence countrywide and global tobacco control efforts. Physicians occupy a key position for leading smoking cessation programs in the community. Patients expect information, help & guidance from their primary care physicians on a number of health-related matters. Physicians also play an important role in helping patients to quit smoking. As future physicians who will witness the continued burden of smoking-related diseases among their patients, medical students represent a primary target for tobacco-prevention programmes. However, it has been reported that medical students are more likely to have tobacco related disorders than non-medical students<sup>[2]</sup>.

Teaching about the adverse effects of tobacco use and diseases related to it is an essential part of the curriculum for undergraduate medical students. Doctors occupy a key position in this regard; as they are uniquely placed to lead smoking cessation programs in the community. Alas, if the future physicians are themselves entangled in the web of abuse and dependence, then the plight of the smoking cessation programs can well be imagined<sup>[3]</sup>. The Global Youth Tobacco Survey (GYTS) estimated that over 4 million young people aged less than 15 years regularly used tobacco<sup>[4]</sup>. Among the youth, students are vulnerable to substance use, as a faulty coping mechanism for dealing with increasing stress of academics, uncertain career paths or peer pressure. The prevalence of tobacco smoking has gone up world over, even among Indian medical students. There happens to be a deficit in knowledge about smoking-related diseases, tobacco cessation techniques and preventive measures. Moreover, medical students who themselves use tobacco are less likely to counsel patients against tobacco use<sup>[5]</sup>.

For planning of curricula & preparing medical students for tobacco control programmes, the first step is to understand their awareness about tobacco related disorders, their existing pattern of tobacco use and their attitude towards tobacco use as well as prevention programmes.

Therefore, this study was undertaken with the objective to assess the knowledge, attitude and practice related to tobacco use among undergraduate medical students of a private medical college in Mangalore, Karnataka.

## II. MATERIAL AND METHODS

A cross-sectional study was conducted among undergraduate medical students of a private medical college in Mangalore, Karnataka. Ethical approval was obtained from the Institutional Ethics Committee. Students were briefed about the purpose of the study. Participation in the study was voluntary and written informed consent was taken from the participating students. A total of 110 medical students participated in the study, out of which 8 were excluded due to incomplete responses. Thus, a total of 102 completed questionnaires were used for analysis. Confidentiality was assured to the participating students in order to elicit candid and honest responses from them regarding tobacco use. A predesigned, pretested, semi-structured, self-administered questionnaire was used to collect data.

Socio-demographic data including age, sex and academic year was gathered. Knowledge, attitude and practice of tobacco use were assessed with special focus on pattern of tobacco use, awareness about harmful effects of tobacco, thoughts about quitting, support on tobacco ban and exposure to training about tobacco cessation. The data collected was coded, tabulated and analyzed using Microsoft excel and SPSS v 16.

## III. RESULTS

A brief overview of the results has been summarized in Table 1. Out of the 102 participants included in the study, 18.60% had smoked in their lifetime while the rest had not used tobacco till date. A large chunk of tobacco users (42.10%) had been less than 18 years of age at the time of initiation of this habit. Over half of the users (57.90%) had initiated smoking after joining the MBBS professional course. More than three-fourth students (77.27%) were using tobacco daily and cigarette smoking was the most common form (79.55%) of tobacco use. When asked about the reason for tobacco use, the most popular causes cited were to relieve stress (45.45%) and for recreational use (38.63%).

The main source of money used by the students for purchasing tobacco products was the pocket money (88.64%) received from their parents. However, more than half of the students who used tobacco (56.20%) believed that they were not addicted to smoking and were willing to quit this habit. However, nearly half (46.70%) of the students who were using tobacco had made an attempt to quit, but could only cut down on the quantity used by them. About 58.30% of them wished to quit over the next 6 months. Over one-fourth of the students (27.50%) wished for a smoke free campus.

Majority of the students were well aware about the harmful effects of tobacco use (90.76%) and felt the need for doctors to enquire about tobacco use during assessment of their patients. Majority of the students (86.30%) felt that doctors need to advise their patients on smoking cessation and that it would help patients quit smoking faster. It was alarming to note that almost all students (98%) reported that they had not been trained in tobacco cessation as a part of their curriculum. Lack of training in tobacco cessation was also cited as the primary reason why the students did not feel confident to impart psycho-education to patients regarding tobacco use or help them quit the habit.

## IV. DISCUSSION

Most of the medical students who participated in the present study were well aware about the adverse effects of tobacco use and diseases related to it. Majority of the students realized the importance of asking about tobacco use while examining a patient and strongly felt that doctors should actively advise patients against smoking.

Despite of high awareness about smoking related adverse effects, the prevalence of tobacco use among the undergraduate population in the present study was found to be 14.5%. This is lower than the prevalence rate reported in other similar studies from China (37.7%)<sup>[6]</sup>, and comparable to that reported from Iran (14.4%) and Saudi Arabia (13%)<sup>[7,8]</sup>. Another similar study conducted among male medical students in South India had shown the prevalence of smoking to be 22.4%<sup>[9]</sup>.

In the present study, majority of students had initiated smoking between the ages of 18 and 19 years (57.90%). This is consistent with findings from other similar studies which have also reported age of onset of smoking in majority of medical students to be below 20 years of age<sup>[7,9]</sup>.

Previous studies have indicated that when people start smoking at a younger age, they are more likely to be addicted to nicotine and more likely to die from tobacco-related diseases. For example, the likelihood of dying from cancer caused by cigarette smoking is 3 times higher for a person who starts smoking at the age of 15 as compared to someone who starts in their mid-20s<sup>[10]</sup>. Therefore, an early onset of smoking further heightens the risks associated with it.

The late adolescent age group appears to be the most vulnerable time period for initiation of smoking among medical students. This period also coincides with transition from school years to medical college, with changing life roles and mounting academic pressure. Adaptation into a new social environment and peer pressure may also act as coercive forces for the initiation of smoking in this age group. Therefore, medical student population falling into this age bracket needs special attention for prevention of tobacco use to nip the habit in the bud.

Stress was the most common cause attributed for taking up the habit of tobacco use in the present study (45.4%), followed by recreation (38.63%). The influence of the peer groups was also an important factor for determining smoking related behavior of students. However, its interplay with other factors such as stress, which is more likely to occur in medical colleges, should not be ignored by curriculum designers.

In the present study, over one fourth students had smoked more than 100 cigarettes in their lifetime. Among the smokers, nearly 75% wanted to quit smoking, but only 18.8% had made an attempt to quit the habit. Nearly half the medical students who had tried to cut down had been unable to do so. Over one fourth of the students supported a ban on tobacco advertisement and a felt the need for a tobacco free campus, which is comparable to other previous similar studies<sup>[11,12]</sup>.

Education remains the key in smoking cessation for both medical students and the general public alike. In the present study, nearly half of the students reported that they had not received enough education about tobacco use in the current curriculum, and over three fourth of the students had not been exposed to any classes or training sessions on smoking cessation. It has previously been noted that educating both physicians and

medical students about the importance of smoking as a cause of diseases represents the first step in getting them involved in smoking cessation. While medical colleges should clearly be provided with educational programs in this regard, it has been highlighted that not enough medical colleges in reality teach specific courses on tobacco control<sup>[13,14,15]</sup>.

There appears to be a need for providing adequate education to medical students about tobacco use as a part of the curriculum as well as through training programs and workshops. In addition to this, special attention is also needed to impart life skills and inculcate healthy coping mechanisms in the medical students to deal with academic and social pressures. A failure in doing so may allow an entrenched smoking culture to prevail among the student population and thus jeopardize their future role as physicians responsible for tobacco control programs.

### V. CONCLUSION

The study reflects an alarming situation with tobacco use among medical students being an issue of grave concern. Anti-tobacco and tobacco cessation measures need to be adopted by health professionals, who also hold the position of role models for the society. This injurious behaviour not only causes personal harm but also reduces future health professionals' ability to motivate or counsel their patients effectively. The lacunae in imparting education about tobacco use, as well as inculcating life skills for coping with stress, need urgent attention so as to shape the future doctors in the right direction.

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### AUTHORS

**First Author:** Dr. Aruna Yadiyal, Associate Professor, Department of Psychiatry, Father Muller Medical College, Mangalore. drarunayadiyal@yahoo.in

**Second Author:** Dr. Shobhana Mittal, Post Graduate Resident, Department of Psychiatry, Father Muller Medical College, Mangalore. shobhana.mittal@gmail.com

**Third Author:** Dr Nandita Shenoy, Associate Professor, Department of Oral Medicine and Radiology, Manipal College of Dental Sciences, Mangalore. nandita.shenoy@gmail.com

**Fourth Author:** Dr Ashima Chopra, BDS, Manipal College of Dental Sciences, Mangalore.

**Fifth Author:** Dr Prasanna Mitra, Associate Professor, Department of Community Medicine, Kasturba Medical College, Mangalore.

**Corresponding Author:** Dr Nandita Shenoy, Associate Professor, Department of Oral Medicine and Radiology, Manipal College of Dental Sciences, Mangalore. nandita.shenoy@gmail.com

Table 1		Count	Column N %
<b>HOW MANY CIGARETTES CAN A PERSON SMOKE WITHOUT HARM TO ONES HEALTH</b>	0	38	37.30%
	1	15	14.70%
	2	24	23.50%
	3	5	4.90%
	4	1	1.00%
	5	8	7.80%
	10	6	5.90%

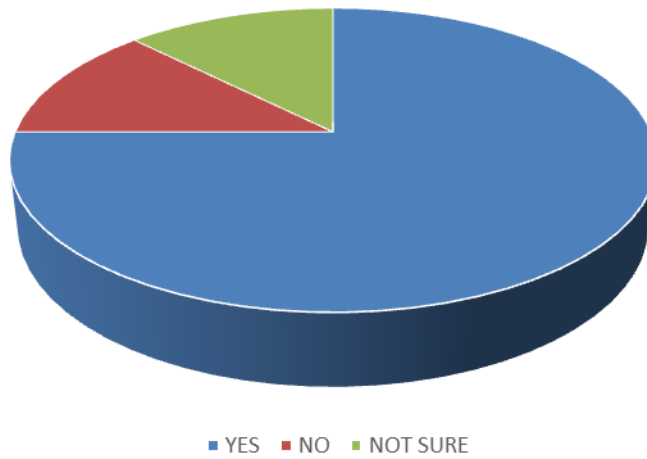
	16	1	1.00%
	20	2	2.00%
	25	2	2.00%
<b>SHOULD A DOCTOR ROUTINELY ASK ABOUT SMOKING/CHEWING HABIT</b>	YES	94	92.20%
	YES ONLY IF THEY ARE SICK WITH ILLNESS	8	7.80%
	NO	0	0.00%
<b>IS IT THE DOCTORS DUTY TO ADVISE PATIENTS NOT TO SMOKE OR CHEW TOBACCO</b>	YES IT IS THE DOCTORS ROLE TO ADVICE	88	86.30%
	YES ONLY IF PATIENT REQUESTS HELP	8	7.80%
	YES ONLY IF THEY ARE SICK WITH ILLNESS RELATED TO TOBACCO	6	5.90%
	NO IT IS NOT A DOCTORS ROLE TO ADVICE	0	0.00%
<b>DOES HEALTH PROFESSIONAL'S INTERVENTION HELP PATIENT QUIT HABIT</b>	YES	80	78.40%
	NO	22	21.60%
<b>WERE YOU EDUCATED IN YOUR CURRICULUM ABOUT ILL EFFECTS OF TOBACCO</b>	YES	45	44.10%
	NO	47	46.10%
	NO BECAUSE I JUST STARTED MEDICAL COLLEGE	10	9.80%
<b>HAVE YOU RECEIVED ANY CLASSES OR SESSIONS HELPING PEOPLE QUIT TOBACCO</b>	YES	8	7.80%
	NO	79	77.50%
	NO BECAUSE I JUST STARTED MEDICAL COLLEGE	15	14.70%
	1	70	68.60%
	2	30	29.40%
	3	1	1.00%
	4	1	1.00%
<b>HAVE YOU SMOKED CIGARETTE IN YOUR LIFE TIME</b>	YES	19	18.60%
	NO	83	81.40%
<b>HOW MANY CIGARETTES HAVE YOU SMOKED IN YOUR LIFE TIME</b>	<5	5	26.30%
	<25	3	15.80%
	26-100	6	31.60%
	>100	5	26.30%
<b>CURRENT SMOKER</b>	YES	10	52.60%
	NO	9	47.40%
<b>DID YOU SMOKE PRIOR TO COLLEGE</b>	YES	8	42.10%
	NO	11	57.90%
<b>DID YOU START SMOKING IN COLLEGE</b>	YES	10	52.60%
	NO	9	47.40%
<b>DID YOUR SMOKING INCREASE WHEN YOU JOINED COLLEGE</b>	YES	12	63.20%
	NO	7	36.80%

<b>DID YOU SMOKE IN THE PAST 30 DAYS</b>	YES	15	78.90%
	NO	4	21.10%
<b>HOW MANY DAYS DID YOU SMOKE 1 OR MORE CIGARETTES</b>	1-2 DAYS	5	31.20%
	3-5 DAYS	4	25.00%
	6-9 DAYS	4	25.00%
	10-19 DAYS	0	0.00%
	20-29 DAYS	3	18.80%
	ALL 30 DAYS	0	0.00%
<b>HOW MANY CIGARETTES / DAY</b>	1 /DAY	4	25.00%
	2-3/DAY	7	43.80%
	4-6/DAY	3	18.80%
	7-10/DAY	1	6.20%
	11-20/DAY	0	0.00%
	> 20/DAY	1	6.20%
<b>HOW MUCH CRAVING DO YOU FEEL IF YOU DONT SMOKE FOR ONE DAY</b>	NONE	5	31.20%
	MILD	9	56.20%
	MODERATE	2	12.50%
	SEVERE	0	0.00%
<b>HAVE YOU EVER FELT YOU ARE ADDICTED TO SMOKING</b>	YES	7	43.80%
	NO	9	56.20%
<b>DO YOU WANT TO STOP SMOKING NOW</b>	YES	12	75.00%
	NO	2	12.50%
	NOT SURE	2	12.50%
<b>WHEN WAS YOUR MOST RECENT QUIT ATTEMPT</b>	I HAVE NEVER TRIED TO QUIT	7	43.80%
	I AM TRYING TO QUIT NOW	3	18.80%
	WITHIN THE LAST MONTH	2	12.50%
	WITHIN LAST 6 MONTHS	1	6.20%
	WITHIN THE LAST YEAR	1	6.20%
	> YEAR	2	12.50%
<b>IF YOU TRIED HOW SUCCESSFUL WAS IT</b>	I QUIT COMPLETELY	2	13.30%
	I COULD REDUCE BY <15%	3	20.00%
	I COULD REDUCE BY 50% OR MORE	3	20.00%
	I COULD NOT QUIT OR CUT DOWN	7	46.70%
<b>IF YOU DONT HAVE INTEREST IN QUITTING NOW, WHEN DO YOU PLAN TO QUIT</b>	IN 6 MONTH	7	58.30%
	IN 1 YEAR	1	8.30%
	AFTER 2 YEARS	0	0.00%
	SOME TIME IN FUTURE	4	33.30%
<b>IN YOUR OPINION WILL YOU TAKE UP SMOKING</b>	I ALREADY SMOKED BEFORE COLLEGE STARTED	6	5.90%
	I WILL NEVER THINK OF SMOKING	83	81.40%
	THERE IS SMALL CHANCE I WILL TAKE UP SMOKING IN COLLEGE	6	5.90%
	THERE IS HIGH CHANCE I WILL TAKE UP SMOKING	7	6.90%
<b>WHAT IS YOUR</b>	STRONGLY AGAINST	3	2.90%



<b>OPINION ON HAVING A SMOKE FREE COLLEGE CAMPUS</b>	AGAINST	5	4.90%
	NO OPINION	10	9.80%
	SUPPORT	28	27.50%
	STRONGLY SUPPORT	56	54.90%
<b>WHAT IS YOUR OPINION OF MEDICAL STUDENTS AND DOCTORS WHO SMOKE</b>	ITS OK	35	34.30%
	SHOULD NOT SMOKE	34	33.30%
	NO OPINION	21	20.60%
	BLANK	12	11.80%
<b>DO YOU TAKE HISTORY OF TOBACCO USE ROUTINELY</b>	YES	78	76.50%
	NO	4	3.90%
	I AM NOT SEEING PATIENTS NOW	20	19.60%
<b>ARE YOU ADVISING PATIENTS AGAINST TOBACCO USE</b>	YES	36	35.30%
	NO	43	42.20%
	I AM NOT SEEING PATIENTS NOW	23	22.50%
<b>TOBACCO SESSATION TRAINING FROM MEDICAL COLLEGE</b>	YES	2	2.00%
	NO	100	98.10%
<b>WAS THE EDUCATION ENOUGH TO HELP YOU COUNSEL PATIENTS</b>	YES	3	10.70%
	NO	25	89.30%
<b>ARE YOU CONFIDENT TO GIVE EDUCATION TO PATIENTS AND HELP THEM QUIT</b>	YES CONFIDENT	33	32.40%
	NOT CONFIDENT	10	9.80%
	I HAVE NOT ACQUIRED TOBACCO SESSATION SKILLS	59	57.80%

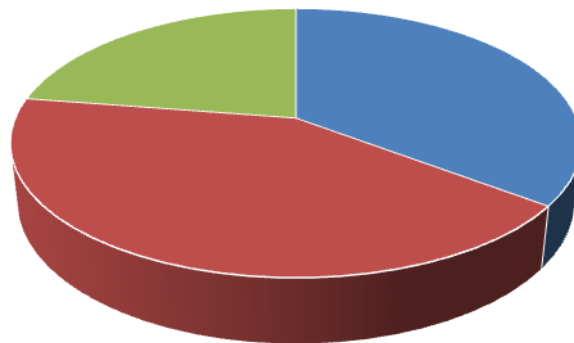
### DO YOU WANT TO STOP SMOKING NOW



### WHEN WAS YOUR MOST RECENT QUIT ATTEMPT

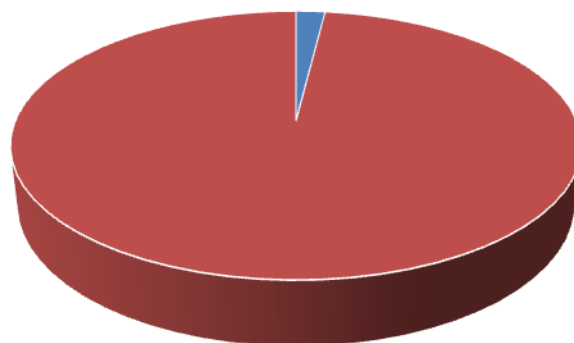


### ARE YOU ADVISING PATIENTS AGAINST TOBACCO USE



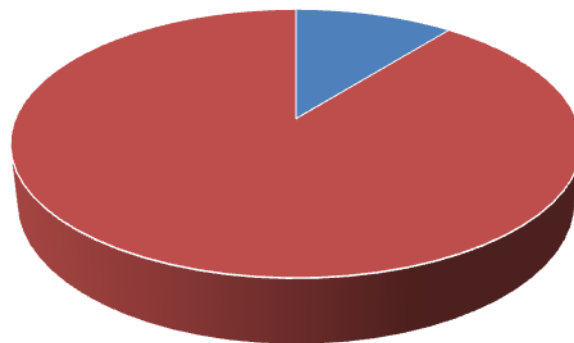
■ YES ■ NO ■ I AM NOT SEEING PATIENTS NOW

### TOBACCO SESSATION TRAINING FROM MEDICAL COLLEGE



■ YES ■ NO

### WAS THE EDUCATION ENOUGH TO HELP YOU COUNCIL PATIENTS



■ YES ■ NO