

# A Cross Sectional Study On The Attitude, Awareness And Use Of Tobacco Among The Undergraduate Medical Students Of Chennai.

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## **ABSTRACT:**

**Background:** Tobacco usage is the leading cause of preventable morbidity and mortality in the world. It is the risk factor for cardiovascular, respiratory diseases, cancer, and many other debilitating conditions. Every year more than 8 million people die from tobacco usage. Most tobacco related deaths occur in Low and middle income countries which are often the targets for numerous tobacco industries and marketing.

**Objectives:** To assess the attitude & awareness of tobacco usage among the undergraduate medical students of Chennai.

**Methodology:** A cross sectional study was done on 303 undergraduate medical students of Chennai using a pre designed questionnaire to study about the problem and various correlates of the tobacco usage. Data was collected and analysed using Excel & SPSS software.

**Result :** Out of the 303 students with a male population of 181 (59.73%) and a female population of 122 (40.27%) who participated in the survey, about 20.4% of the students smoke and 79.6% of the students do not smoke. Out of them 224 students came from home as day scholars and 79 of them lived in hostels. Most of the students were in the age category of 18 to 20 years (174 students). And most of them came from nuclear families (227 students). Most of the medical students belonged to 3rd year of study.

**Conclusion:** Tobacco use among medical students is a significant problem. Important factors affecting it are gender, family history, current living status, stress, peer group pressure, media influences. Special awareness programme and specific training regarding tobacco cessation should be given to medical students.

**Keywords:** Medical students, tobacco, smoking

## 1.INTRODUCTION:

Tobacco use is an emerging pandemic marching forward relentlessly[4]. Tobacco usage is a major preventable cause of morbidity and mortality[3]. Use of tobacco is the second major cause of death in the world[5]. The United Nations sustainable development goals include among their targets to strengthen the implementation of WHO FCTC(Framework Convention on tobacco control) in all countries .The indicator that accompanies this target is Age-standardized prevalence of current tobacco use among persons aged 15 years and older[6]. Tobacco usage not only leads to lung cancer or heart disease that causes serious health problems and death , but there are also some less publicized side effects of smoking like, psoriasis, COPD, cataract, hearing loss, tooth decay, osteoporosis, stomach ulcers, discolored fingers, deformed sperms, and Buerger's disease[7].WHO monitors this indicator.Health care professionals play a substantial role in influencing the patients' lifestyle including tobacco cessation. Physicians and medical students can be agents of social change and play important roles in preventing their patients from reducing tobacco related deaths and its usage[8]. Medical students are particularly involved due to increasing academic pressures and uncertain career[4].Tobacco usage among medical professionals should be reduced and it is also important that they are aware of the harmful or the ill effects of tobacco usage and the anti-tobacco strategies to reduce the tobacco usage among population[3]. In developing nations where reductions in tobacco use have not been realized, it is critical that health professionals be encouraged to abstain from tobacco [9].Teaching about the effects of the use of tobacco and related diseases is essential for the 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 programmes in the community, but if the future physicians are themselves entangled in the web of the abuse and dependence of tobacco, then the plight of the smoking cessation programmes can well be imagined[5].Teaching about this will also make their role in the advocacy of smoking cessation activities more trustworthy. As smoking has a serious impact on public health , preventive programs have been given high priority in WHO policies[10].The aim of this study is to know the prevalence of cigarette smoking among undergraduate medical students and to identify how much students know about the dangers of smoking[9].

*Objectives:*To assess the attitude & awareness of tobacco usage among the undergraduate medical students of Chennai

## 2.METHODOLOGY:

A cross sectional study was done on undergraduate medical students of Chennai by using a questionnaire to study the attitude and the awareness of tobacco usage among the medical students of Chennai. This study was done between January 2020 to March 2020 with a sample size of 303. Students from 1st year, 2nd year , 3rd year , 4th year and CRRRI were included in the study . Participation in the study was voluntary and verbal informed consent was taken from the participating students. The information was collected regarding age, residential background , current place of living , family status , and tobacco use in the family. The questionnaire consists of 3 parts . Initially demographic details such as name , age , year of study , current place of stay , their residential background and type of family. Students were given a privilege of choosing whether not to write their name for their comfortability and to elicit correct responses from them. Part 1 of the questionnaire consists of questions regarding the prevalence of tobacco among the medical students ( Question 1 to 5). It also

questions about the different types of exposure to tobacco including environmental tobacco smoke exposure (ETS) .Part 2 of the questionnaire deals with studying the attitude and awareness of the study population towards smoking and sale of tobacco products(Question 6 to 12) . Part 3 of the quest deals with studying the awareness of the study population on the cessation behaviour against tobacco (Question 13 to 17) . Data was collected and analysed using Excel & SPSS software.

### 3. RESULT:

TABLE 1  
Frequency & Distribution of socio demographic details(N=303)

VARIABLE	MALE(n =181)(%)	FEMALE(n =122) (%)
<b>AGE OF RESPONDENTS</b>		
18-20	97(53.5)	77(63.1)
21-23	78(43.1)	43(35.2)
>24	6(3.4)	2(1.7)
<b>YEAR OF STUDY</b>		
1st year	32(17.6)	25(20.5)
2nd year	38(20.9)	40(32.8)
3rd year	61(33.8)	45(36.8)
4th year	42(23.2)	8(6.6)
5th year(CRRI)	8(4.5)	4(3.2)
<b>TYPE OF FAMILY</b>		
Nuclear	133(73.4)	94(71.1)
Joint	33(18.3)	20(16.3)
Single parent family	15(8.3)	8(6.6)
<b>PLACE OF STAY</b>		
Hostel	82(45.3)	62(50.81)
Home	99(54.7)	60(49.19)
<b>LOCATION</b>		
Rural	59 (32.6)	20(16.3)
Urban	122(67.4)	102(83.7)

About 334 questionnaires were distributed among the medical students of all the batches (1st year to CRRI ). Out of the total 334 students, only 319 students had responded, out of which 16 had given incomplete response and were therefore excluded from the study. Thus, 303 completed questionnaires were used for the analysis. Out of the 303 responses from the medical students, most of the responses were from male students (59.73%) and a female response of 40.27% .Majority of the students came from home as day scholars (52.47%) the rest stayed at hostels (47.52%). Majority of the belonged to an urban background ( 73.92%) and the rest belonged to the rural background (26.07%). Students coming from different types of families participated under the study with 74.91% belong to nuclear families , 17.49% belonging to joint family and 7.59% belong to single parent family. Majority of the students were between the age category of 18-20 (57.42%), the rest of them belonged to an age category of 21-23 (39.93%) and above 24 years (2.63%). Most of the medical students belonged to 3rd year of study (34.98%) , the rest belonged to 1st year (18.81%), 2nd year ( 25.74%) , 4th year (16.50%) and CRRI ( 3.96%).The results in the study revealed that, out of total students (n = 303), 20.4% were found to be current tobacco

users and the rest 79.6% were found to be not consuming any type of tobacco. It was found that most of the students were not exposed to environmental tobacco smoke in the past 7 days when with their family (89.7%) and in public places (82.5%). Almost 20.46% of the study population were found to be using tobacco inside and around the college premises and 4.2% of the students were found to be using smokeless tobacco.

TABLE 2  
(PREVALENCE OF TOBACCO EXPOSURE STATUS)

Characteristics	TOBACCO USAGE			
	MALE(n=181)(%)		FEMALE(n=122)	
	YES	NO	YES	NO
1. Self usage	54(29.8)	127(70.2)	8(6.6)	114(93.4)
2. usage in college premises	52(28.7)	129(71.3)	10(8.2)	112(91.8)
3. smokeless tobacco	11(6.1)	170(93.9)	2(1.6)	120(98.4)
4. Passive smoking exposure	28(15.5)	153(84.5)	3(2.5)	119(97.5)

Most of the students are in favour of banning the sale of tobacco (60.4%) and also their advertisements (66.7%). However almost half of the people (40.6%) think that the usage of tobacco may not be reduced even after the advice given by the health care professionals. And at the same time most of the students think that the health care professionals may act as role models in banning or reducing the use of tobacco by the patients.

TABLE 3  
(DISTRIBUTION OF ATTITUDE OF TOBACCO USERS.)(N=303)

Characteristics	YES(%)	NO(%)	MAY BE(%)
1. Insights for banning tobacco sales	183(60.4)	120(39.6)	0
2. Insights for banning tobacco advertisements	202(66.7)	101(33.3)	0
3. Advice to patients from health professionals regarding tobacco usage	180(59.4)	123(40.6)	0
4. Are health professionals role models for patients	237(78.2)	66(21.8)	0

Majority of the students were taught about the dangers of smoking and were aware of it. Most of the students agree that smoking might eventually lead to heart problems (95.70%) and emphysema (95.37%). They are also aware of other problems caused by smoking like GIT malignancy (79.53%), lung cancer (89.76%), dental staining (79.53%) and asthma (82.50%). Most of the students agree that there should be a ban on public smoking (74.25%) but at the same time 66.66% of the students stand for not banning the usage of tobacco in public.

TABLE 4 :  
AWARENESS ON SMOKING RELATED ISSUES AMONG MEDICAL STUDENTS

AWARENES S	1st year (n=57)	2nd year (n=78)	3rd year (n=106)	4th year (n=50)	5th year(n=12)	TOTAL( n=303)	chi square, P- Value
1. GIT malignancy	44 (77.19%)	68(87.17%)	82(80.39%)	40(80%)	7 (58.33%)	241(79.53%)	6.62,0.157
2.Heart problems	53(92.98%)	76(97.43%)	102(96.22%)	48(96%)	11(91.66%)	290 (95.70%)	2.155,0.707
3. Lung cancer	50(87.71%)	71(91.02%)	98(92.45%)	45(90%)	8(66.66%)	272(89.76%)	8.203,0.084
4.Dental staining	43(77.4%)	67(85.89%)	82(77.35%)	42(84%)	7(58.33%)	241(79.53%)	6.763,0.149
5. Asthma	49(85.96%)	63(80.76%)	90(84.90%)	41(82%)	7(58.33%)	250(82.50%)	5.926,0.205
6.Additional potential	40(70.17%)	38(48.71%)	67(63.20%)	31(62%)	4(33.33%)	180(59.40%)	0.59,0.032*
7.Emphysema	56(98.24%)	75(96.15%)	102(96.22%)	44(88%)	12(100%)	289(95.37%)	8.101,0.088
8.Ban on public smoking	40(70.17%)	64(82.05%)	87(82.07%)	26(52%)	8(66.66%)	225(74.25%)	19.684, 0.001*

\*- P value <0.05 , significant

#### 4. DISCUSSION

The response rate was excellent in this study. Various efforts have been made in the direction of assessing the effect of various factors on the smoking behaviour among the medical students in different parts of the world [9].With the increasing use of the smokeless forms of tobacco as well, it has become important to bring out the data regarding the overall use of tobacco and its various correlates. Therefore, we have tried to find out the overall burden of tobacco use among the medical students, who may serve as the role model for the patients with respect to the smoking cessation activities[9].A recent study in Kerala showed that substantial proportion of medical students and physicians continue to smoke [11]

In the present study, an overall prevalence rate of current smoking among medical students was found to be 20.46%, signifying that substantial proportion of them smoked. The overall prevalence of tobacco smoking was found to be 18.0% in a study done in Uttar Pradesh [6][9]. The results of other studies among academic medical students showed that the prevalence of tobacco smoking was comparable to our findings. Some studies done in India and other countries low prevalence of smoking among the medical students, but at the same time some other studies showed high prevalence among the medical students, especially among the male medical students . In our study also , the usage of tobacco and current

smoking is high among the males compared to the females . In our study it is found that the usage of tobacco is high around the college premises than its use outside the college. The widely differing prevalence rate of smoking found in these studies could be due to wide differences in the samples and definitions used, geographical area involved and importantly social factors like parental smoking, peer pressure and other habits like alcohol consumption. Besides medical students here come from different parts of the country which may be responsible for this varied prevalence rate. And from our study it is known that the majority of the students agree on the fact of banning the tobacco sales including their advertisements. On the contrary , almost half of the study population thinks that the advices given to the patients by the health care professionals may not reduce or prevent their usage of tobacco. But most of the students agree that the health care professionals play a very major role in acting as role models for the patients . From our study , it is seen that the students are aware of the problems caused by the usage of tobacco. From our study , it is seen that most of the students agree that excessive usage of smoking might eventually lead to heart problems and emphysema. There were widespread deficiencies in knowledge of smoking as an important causal factor in many diseases like gastro intestinal malignancy, heart problems, asthma, emphysema among first and also second year medical students. The overwhelming effect of peer pressure on the initiation of tobacco use is a matter of serious concern because it is very difficult to prevent the effect of this factor in an age group which likes the company of their friends as well as is influenced maximally by them, more so while living in a hostel away from their homes. Like in all surveys that rely on self-reported data, there is always a possibility of both inadvertent and deliberate misreporting. We do however believe that any bias which may have been introduced as a result of non availability of study participants was likely to be minimal as the response rate was high. The web of causation of this particular factor is very complicated and it has a direct as well as an indirect and synergistic effect with other factors. Disentangling it would require even more in-depth research.

## 5. CONCLUSION :

Cigarette smoking is still a huge menace among the medical students . Main reasons for them to continue smoking is addiction and stress relief [12]. Reinforcing smoking cessation techniques and counselling in the medical curriculum can be provided[13]. Multipronged approach like enforcement of anti tobacco laws, massive social mobilization for anti tobacco movement such as campaigns, role play , posters would be effective[4]. Tobacco usage is higher in the study population is higher than the study done elsewhere across the country. The WHO Global action plan for the Prevention and control of Non communicable diseases 2013-2020 includes a target for reducing the global prevalence of tobacco use(smoked and smokeless tobacco ) by 30% by the year 2025 relative to 2010[6]. The findings of the present study emphasize the need to create awareness on the harmful effects of tobacco and also the need to enforce tobacco control policies in the community to curb this modern epidemic of tobacco use.

*CONFLICT OF INTEREST: Nil*

*SOURCE OF FUNDING: Nil*

*ETHICAL CLEARANCE:* Ethical approval was obtained from the Institutional Review Board(IRB) and Institutional Ethics committee. Written informed consent was obtained from

the study participants and information sheet regarding the study was given to all the participants.

## 6. REFERENCES:

- [1] Elamin OE, Elamin SE, Dafalla BA, El-Amin ME, Elsiddig AA. Cigarette smoking among medical students in The National Ribat University, Sudan. *Sudanese journal of paediatrics*. 2013;13(2):45.
- [2] Tobacco [Internet]. Who.int. 2020 [cited 29 September 2020]. Available from: [https://www.who.int/health-topics/tobacco#tab=tab\\_1](https://www.who.int/health-topics/tobacco#tab=tab_1)
- [3] Parmar SP, Gosai TR, Solanki KC. A study of habits of tobacco use among medical students and influence of various factors including medical education. *International Journal of Basic & Clinical Pharmacology*. 2018 Apr;7(4):631.
- [4] Chatterjee T, Haldar D, Mallik S, Sarkar GN, Das S, Lahiri SK. A study on habits of tobacco use among medical and non-medical students of Kolkata. *Lung India: Official Organ of Indian Chest Society*. 2011 Jan;28(1):5.
- [5] Kumari R, Nath B. Study on the use of tobacco among male medical students in Lucknow, India. *Indian journal of community medicine: official publication of Indian Association of Preventive & Social Medicine*. 2008 Apr;33(2):100.4.
- [6] Commar A, Prasad V, d'Espaignet E. WHO global report on trends in prevalence of tobacco use 2000-2025 [Internet]. 3rd ed. Geneva: World Health Organization; 2019.: World Health Organization (WHO); 2020 [cited 29 September 2020]. Available from: <http://file:///C:/Users/HP/Downloads/9789240000032-eng.pdf8>.
- [7] Pankaj JP, Rathore MS, Saini P, Mangal A. Prevalence and Associated Factors of Tobacco Smoking among Undergraduate Medical and Dental Students in Rajasthan. *International Journal of Scientific Study*. 2015 Jul 1;3(4):63-7.
- [8] SuthatRungruanghiranya MD, ChatchaiEkpanyaskul MD. Impact of tobacco control campaigns on smoking behaviors in Thai medical schools. *J Med Assoc Thai*. 2017;100(3):339-46.
- [9] Mohan S, Pradeepkumar AS, Thresia CU, Thankappan KR, Poston WS, Haddock CK, Pinkston MM, Muramoto ML, Nichter M, Nichter M, Lando HA. Tobacco use among medical professionals in Kerala, India: the need for enhanced tobacco cessation and control efforts. *Addictive behaviors*. 2006 Dec 1;31(12):2313-8.
- [10] Al-Kaabba AF, Saeed AA, Abdalla AM, Hassan HA, Mustafa AA. Prevalence and associated factors of cigarette smoking among medical students at King Fahad Medical City in Riyadh of Saudi Arabia. *Journal of Family and Community Medicine*. 2011 Jan;18(1):8.
- [11] Singh R, Nasimudeen N, Pavanan P, Sulaiman RM, Jose R, Remabai RC. Prevalence of tobacco smoking and KAP about smoking among students of a private medical college in Central Kerala. *Natl J Res Commun Med*. 2015;4(1):151-8.
- [12] Naeem M, Khan S, Abbas SH, Khan A, Islam MZ. KNOWLEDGE, ATTITUDE AND PRACTICE OF TOBACCO SMOKING AMONG MEDICAL STUDENTS IN KHYBER PAKHTUNKHWA. *Journal Of Medical Sciences*. 2018 Apr 14;26(1):3-8.10.
- [13] Alzayani S, Hamadeh RR. Tobacco smoking among medical students in the Middle East: identifying areas for intervention. *International Journal for Innovation Education and Research*. 2015;3(2):72-8.