



## **Smoking Behaviour among Young doctors of a Tertiary Care Hospital in Mumbai, India**

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## **Abstract**

**Background:** Tobacco use is one of the biggest public health threats the world has ever faced. There are more than one billion smokers in the world. Almost half of the world's children breathe air polluted by tobacco. Aim of current study was to study the smoking trends among young doctors in a tertiary care institute in north India.

**Methods:** A descriptive observational cross-sectional epidemiological study was conducted among 250 doctors of a tertiary care Hospital in Mumbai, Maharashtra, India during the two months of February-March, 2022. The predesigned tool adopted during data collection was a questionnaire that was developed at the institute with the assistance from the faculty members and other experts.

**Results:** Among 250 participants, (20%) were smokers; among smokers, (76%) were regular smokers and (24%) were occasional smokers. Majority of smokers were in the age group of 21-30 years (80%) & started smoking between 11-20 years (70%). All of them were male (100%). No significant difference was observed among urban and rural students. Among smokers, majority (60%) was in the practice of smoking for last 6 months to 1 year and 26% smoked for <6 months; & (14%) smoked for more than 5 years .It was found more than half of the responding (60%) students used to smoke 5-9 cigarettes per day; 14% is <5 and 26% consumed 10 or more per day .Among smokers, peer pressure was found in 80% cases. ( $\chi^2 = 107, P < 0.001$ ). Among smokers, almost 20% had other addiction and among non-smokers only 5% had .Effect of parental smoking was significantly higher in smokers than non-smoker ( $\chi^2 = 66.2, P < 0.001$ ) .It was seen that peer pressure was the most important risk factor (60%) of initiation of smoking habit followed by parental influence (20%). Majority (78.4%) had no intention to quit in the next 6 months. Lack of Incentive (36.36%) and Addiction (27.27%) were the main reasons for not quitting.

**Conclusion:** We need to create more awareness regarding hazards of smoking in general population especially in medical students, and afterwards provide psychological and pharmacological support for those who intend to quit, as medical students can themselves become a tool to fight this hazard at all levels.

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## **Introduction**

The epidemic is shifting to the developing world. More than 80% of the world's smokers live in low- and middle- income countries. World Health Organization (WHO) estimated that there are about 100 million smokers in the world. Globally 47% of men and 12% of women smoke. In India, 65% of all men use some form of tobacco, among which 35% use smoking, 22% use smokeless tobacco, and 8% both.<sup>1</sup> Tobacco kills up to half of all users. It is a risk factor for six of the eight leading causes of deaths in the world. The tobacco epidemic is one of the biggest public health threats the world has ever faced, killing nearly six million people a year and accounts for one in 10 adult deaths worldwide. More than five million of those deaths are the result of direct tobacco use while more than 600000 are the result of non-smokers being exposed to second-hand smoke. Approximately one person dies every six seconds due to tobacco. 100 million deaths were caused by tobacco in the 20th century. If current trends continue, there will be up to one billion deaths in the 21st century. Unchecked, tobacco-related deaths will increase to more than eight million a year by 2030, and 80% of those deaths will occur in the developing world. Up to half of current users will eventually die of a tobacco-related disease. Tobacco users who die prematurely deprive their families of income, raise the cost of health care and hinder economic development.

Medical students belong to that age group when lifestyles, both healthy and unhealthy, are formed. Being future doctors, they are the role models for patients. But, if they themselves are entangled in the web of dependence of tobacco, then the smoking cessation program will be a failure.<sup>2</sup>

With this background the present study was carried out with the objectives to find out the prevalence and determinants of smoking practices among young doctors in a tertiary care teaching institute in Mumbai, Maharashtra, India

## **Methods**

### ***Study design and settings***

A cross-sectional study was conducted among 250 doctors between 17-35 years of age of a tertiary care teaching institute of Mumbai, Maharashtra, India in the months of February-March, 2022.

### ***Study instrument***

A predesigned questionnaire was used to assess the pattern of smoking among doctors. The Questionnaire was divided into two parts. The first part dealing with the demographic details of the participants while the second part had 18 multiple choice questions pertaining to the smoking pattern. The study instrument was pretested by carrying out a pilot study for 7 days and deficiencies found were subsequently corrected.

### ***Data collection procedure***

The questionnaire was presented to the study group after briefing the participants about the purpose of the study. Study subjects were assured confidentiality regarding their response. The participants were given a time frame of 7 days to return the filled questionnaire. Those study subjects who either did not return the questionnaire or who willingly did not participate were excluded from the study.

### ***Definitions***

- According to WHO, a cigarette smoker is a person who at the time of the survey smoked cigarettes either daily or occasionally.
- A daily smoker is a person, who smoked a cigarette at least once a day (except for people who smoked every day, but not on days of religious fasting were still classified as daily smokers).
- An occasional cigarette smoker is a person, who smoked cigarettes but not every day.
- A never-smoker was a person who had never smoked at all in his / her lifetime
- Parental tobacco use was defined as habit of smoking tobacco by either or both parents.

### ***Statistical analysis***

The collected data was entered into Excel sheets and analysis was carried out. Compilation of data was done through tabulation and then proper statistical tests were applied in data interpretation.

### **Results**

The observation of the study revealed that among 250 study subjects, (20%) males were smokers (n=50) while majority 80% (n=150) males were non- smokers. Among 50 female participants none was found to be

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smoker. Relationship of smoking viza viz gender of study groups revealed that 80% (n=40) of smokers were in the age group <30 years while 20% (n=10) were >30 years old. The results were significant with  $P < 0.001$ . Observation of smoking in relation to the residing facility used by the study subjects reveals that among the study subjects who smoked, 60% (n=30) were hosteliars i.e.; who were using hospital accommodation. Only 40% (n= 20) smokers were day scholar.

(Table 1) studying the duration of study subjects viza a viz study population reveals that among smokers, majority (60%) was in the practice of smoking for last 6 months to 1 year and 26% smoked for <6 months; and (14%) smoked for more than 1 year.

Analysis of distribution of smoker in relation to number of cigarettes smoked per day (Table 2) reveals that more than half of the respondents (60%) students used to smoke 5-9 cigarettes per day; 14% is <5 and 26% consumed 10 or more per day.

(Table 3) Among 80% of smokers, peer pressure was found to be associated with smoking habit whereas among nonsmokers peer pressure was present in only 10% cases. The peer pressure was significantly high among smokers ( $P < 0.001$ ).

Analysis of the table 4 reveals that 20% of those who smoked were having other addiction like use of intravenous drugs, snuff etc. while among non-smokers only 5% were in the habit of other addiction. Other addiction was significantly higher among smokers than nonsmokers ( $P < 0.001$ ).

Effect of parental smoking on smoking habits of the participants (Table 5) reveals (80%) of smokers having positive parental history of smoking. The results were significant ( $P < 0.001$ )

Table 6 revealed that 60% of smokers consider peer pressure as important risk factor followed by parental smoking (20%). 12% of smokers consider curiosity as a risk factor while 6% of smokers consider tension as a risk factor for initiation of smoking

Table 1: Duration of smoking among doctors.

Duration of smoking	Number	Percentage (%)	P value
<6 months	13	26	1.000
6 months - 1 year	30	60	
>1 year	7	14	
<b>Total</b>	50	100	Chi square: 0.00

Table 2: Distribution of students according to the number of cigarettes smoked per day.

Number of cigarettes smoked per day	Number	Percentage (%)	P value
<5	12	14	
5-9	28	60	
>10-20	10	26	
<b>Total</b>	50	100	

Table 3: Distribution of students according to the presence or absence of peer pressure.

Students	Peer pressure		Total
	Yes (%)	No (%)	
Smokers	40	10	50
Non-smokers	20	180	200
<b>Total</b>	60	190	250
Chi square: 107; P <0.001			

Table 4: Distribution of students according to any other addiction.

Students	Other addiction		Total
	Yes (%)	No (%)	
Smokers	10 (20)	40 (80)	50
Non-smokers	10 (5)	190 (95)	200
<b>Total</b>	20 (8)	230 (92)	250
Chi square: 12.2; P <0.001			

Table 5: Effect of parental smoking

Students	Parental smoking		Total
	Yes (%)	No (%)	
Smokers	40 (80)	10 (20)	50
Non-smokers	40 (20)	160 (80)	200
<b>Total</b>	80 (32)	170 (68)	250
Chi square: 66.2; P <0.001			

Table 6: Distribution of risk factors among participants for initiation of smoking

Cause of initiation	Number	%	P value
Peer pressure	30	60	1.00
Parental smoking	10	20	
Curiosity	6	12	
Tension	3	6	Chi square: 0.00
Role model	1	2	
<b>Total</b>	<b>50</b>	<b>100</b>	

Regarding awareness on the widely advertised adverse health effects of cigarette smoking, most of the students responded that they knew about lung cancer, heart problems, bronchitis, asthma, hypertension, and others. Lastly, they were asked about any problem faced due to smoking. Majority (60.6%) responded that they were suffering from regular cough. About 6% students were suffering from bronchitis and another 2% had asthma. About 31.4% responded that they had no health problems.

## Discussion

A questionnaire survey by Minhas HM et al. conducted among all medical students with at least 2 years of medical education studying at 3 medical colleges in Pakistan revealed that of the 1529 respondents (544 males and 985 females), 21.5% were ever smokers (smoked at least once in their lifetime): 9.1% current smokers (including 5.7% daily smokers), 0.7% exsmokers, and 11.7% occasional smokers. The proportion of nonsmokers who knew about the addictive and harmful nature of cigarette smoking was higher than that among the smokers.<sup>3</sup>

The WHO study report on youth and drugs supported our finding that youngsters first try drugs on an experimental basis often motivated largely by curiosity and peer pressure, which is one of the most important reasons for initiation of substance use.<sup>4</sup>

In a study at Lucknow by Kumari, et al. the prevalence was almost similar, that is, 25.2%, which was also comparable to a study conducted at Pakistan (22%).<sup>5,6</sup> The corresponding figure of tobacco use in other studies done at Kerala was 14.7% and Orissa 12.4%.<sup>7,8</sup> Another study by medical cadet Virendra Singh showed that it was 46%.<sup>9</sup> Among the 50 smoker students, (76%) were regular smokers and (24%) were occasional smokers, which has increased enormously from another study reported from West Bengal three decades back where only 3.2% of the males were current smokers.<sup>10</sup>

The smoking rate among female students was found nil in our study, which was unlike to other studies. A study on smoking among medical students in Pakistan revealed that the proportions of ever-smokers among males and females were 48.3% and 6.7%, respectively, and of current smokers were 23.2% and 1.3%. The proportion of males and females smoking daily was 14.7% and 0.7%, respectively.<sup>5</sup> However, as compared to a previous survey, there was a slight increase in smoking rates among female students, probably due to improvement in women's social status and empowerment.

Tsering D et al. observed that family members and friends were found to have a considerable influence not only on initiation but also important sources for money as well as the substance. Easy availability in the neighborhood was also an important correlate to continuation of substances. It was concluded in that study that family environment as well as peer groups has an important bearing on initiation and continuation of substance use. Experimentation of substance use motivated by peer groups is common among adolescents and starts early in life. Hence, it is necessary to provide health promotion programs directed toward students and their families, which encourage attitude shaping among school children toward self-confidence and adequacy.<sup>11</sup>

### ***Recommendations***

Early onset of smoking habit calls for effective measures directed against the younger age groups. Educational intervention at the school level might appear as one of feasible measures to prevent initiatives toward the use of substances. Caregivers should be motivated to share a healthy relationship with their children and give more time to them, especially in the growing stages when deviant behavior can influence them easily. Effective control can be achieved by education, advocacy, and legislation on the hazards of substance use among students, and this is the most effective educational measure to control it. Health professionals can play an important role in the fight against tobacco. They can educate the population more precisely and their support, in terms of not smoking themselves can have a far reaching influence on tobacco control efforts.

Health care providers are a role model of society and they should play a role in smoking cessation by not smoking themselves.



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