

## Original Article

### A study on awareness of tobacco use and cancer risk among medical students

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#### ABSTRACT:

**Introduction:** Tobacco use is a major health and social problem worldwide. Tobacco use kills nearly 6 million people each year and causes loss of hundreds of billions of dollars worldwide. Most of these deaths occur in low- and middle-income countries. In India, around 10.9% use tobacco in one or the other form. Among the ill effects of tobacco use, the proportion of cancer in Male and female is 56.4% and 44.9% respectively. **Material and Methods:** 200 students. Prior permission was obtained from college authorities, student who were present on the day of interview were included in the study. Students were informed about the purpose of the study and assurance was given about the confidentiality. **Results:** This present study age, sex and socioeconomic status wise distribution of population was: Majority (35%) of the study population was in the age group 19-20 years followed by 18-19 years (30%). In the study population, 55% were males and 45 % were females. Socio economic status: majority of the study population belonged to Middleclass (60%). **Conclusion:** We can conclude, though the awareness among medical students regarding harmful effects of tobacco use was very high but they got this knowledge mainly from the electronic media. On the basis of our study, it is recommended that as these future doctors have an opportunity to play an important role in the tobacco cessation and prevention efforts in the community.

Keywords: Tobacco use, Cancer, harmful effects.

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**Introduction:** Tobacco use is a major health and social problem worldwide. Tobacco use kills nearly 6 million people each year and causes loss of hundreds of billions of dollars worldwide. Most of these deaths occur in low- and middle-income countries.<sup>1</sup> In India, around 10.9% use tobacco in one or the other form.<sup>2</sup> Among the ill effects of tobacco use, the proportion of cancer in Male and female is 56.4% and 44.9% respectively.<sup>3</sup> India rank 4th in the total tobacco consumption in the world but India's cigarette consumption ranks are 11th in the world. Out of the total production, only 19% of the total consumption of Tobacco is in the form of cigarette whereas 81% is in other forms like, chewing,

Bidi (Tobacco rolled in Tendu leaf), Snuff, Gutkha paste (Tobacco paste), Jarda, Hookah paste etc.<sup>4</sup> Globally everyday about 80 thousand to 1 lakh adolescent youth initiate smoking. Most of them are from developing countries.<sup>5</sup> It was estimated that, in year 1999-2001, 5500 adolescent start tobacco use every day in India joining the 4 million under 15 children who use it regularly.<sup>6</sup> Of 1000 adolescent who smoke today, 500 will eventually die of tobacco related diseases, 250 in their middle age and 250 in their old age.<sup>7</sup> Tobacco causes 5.4 million deaths or an average of one death every six second and accounts for 1 in 10 adult deaths worldwide. The death toll is projected to reach more than 8 million by 2030 if

current trends continue.<sup>8</sup> In India, the tobacco related deaths currently range between 8-9 lakh per year.<sup>9</sup> The world Health Organization has predicted that tobacco deaths in India may exceed 1.5 million annually by 2020.<sup>10</sup> The epidemic of tobacco use is shifting from developed to developing countries, including India, where increased use is expected to result in a large disease burden in the future.<sup>11</sup> The factors that lead adolescents to start smoking include advertising of cigarettes,<sup>12</sup> stress, low self-esteem, poor academic performance, and occurrence of smoking among parents and other family members, friends, and staff at school.<sup>13,14</sup> Moreover, research indicates that initiation of smoking is associated with the perception of risks and benefits of smoking.<sup>15</sup> It was found that adolescents with low perception about the long term risks related to smoking were 3.64 times more likely to smoke compared with those who had high perception of smoking related risks.<sup>16</sup> However, the question that whether the awareness about the adverse effects of smoking on oral health has any influence on smoking behaviours among schoolchildren was unclear. The youth in general are more prone to fall prey to this deadly habit, owing to

increase in academic pressure and other kinds of stress in life.

**Material and Methods:**

200 students were included in this study. Prior permission was obtained from college authorities, student who were present on the day of interview were included in the study. Students were informed about the purpose of the study and assurance was given about the confidentiality.

Inclusion criteria: All students of selected sections who were present at the time of study.

Exclusion criteria: Students who were refused, not willing to participate, non-cooperative and those who were absent.

The purpose of the study was explained to the students, confidentiality was ensured. The data were collected regarding age, sex, socioeconomic class, influencing factor for tobacco use, form of product used, their knowledge about passive smoking and association of tobacco use and cancer. Tobacco users were defined as having used tobacco at any stage in their life. On user were those who had not used tobacco products in any form even once in their lifetime. The data collected were compiled and analyzed.

**Results:**

In Table 1, age, sex and socioeconomic status wise distribution of the study population was shown: Majority (35%) of the study population was in the age group 19-20 years followed by 18-19 years (30%). In the study population, 55% were males and 45 % were females. Socio economic status: majority of the study population belonged to Middleclass (60%).

Table1:Demographic details of the study population

Variables	Factor	Numbers(%)
Age in Years	17-18	44(22)
	18-19	60(30)
	19-20	70(35)
	>20	26(13)
Sex	Male	110
	Female	90
Socio economic status	Upper	36(18)
	Middle	120(60.0)
	Lower	44(22)

Table 2 shows percentage wise distribution about knowledge, ill effects and influence of smoking. In the study population 25% students were using tobacco, 78% were using as smoking tobacco, 22% using as chewing tobacco and 20% populations using both smokeless and smoking tobacco. Awareness about ill effect of tobacco was high. About 93% students were aware of role of smoking in causing oral and 95% lung cancer, whereas 90 % were aware of other cancers caused by smoking other than lung and oral. 75% students were aware of role of passive smoking in causing cancer. Reason for starting smoking was Influence of friends, parents and movies were 24%, 26%, 20% respectively. Surprisingly 30% students gave reason for exam and life related stress for their smoking. 96% tobacco users were male and 4 % were female.

Table 2: Percentage of knowledge, Use and Reason for tobacco use

Variables	Numbers (%)
<b>Knowledge on ill effects of tobacco use</b>	
Oral cancer	186 (93)
Lung cancer	190(95)
Other cancers	180(90)
Passive smoking	150(75)

<b>Use of tobacco in any form</b>	50(25)
Smoking	39 (78)
Chewing Tobacco	11(22)
Combined use	10(20)
<b>Reason for tobacco use</b>	
Friends	12(24)
Parents' smoking	13(26)
Movies	10(20)
Academic Stress	15(30)

### Discussion:

The analysis of data in the present study shows significant findings that can be utilized to reduce less likely to smoke than those who were unaware of negative consequences of smoking. Strong epidemiological evidence has shown that smoking behaviour is associated with oral complications such as oral cancers, periodontal disease, halitosis, and dental caries.<sup>17</sup> It is encouraging to see vast majority of schoolchildren aware of the adverse effects of smoking, which include poor oral health, bad taste, malodour, caries, periodontal disease, oral ulcers, and oral cancers. Interestingly, awareness about the detrimental smoking effects on oral health in the present study significantly reduced the probability of smoking among schoolchildren both in univariate and multivariate analyses.

The prevalence of tobacco use in this study was 25%. The studies conducted among undergraduate medical students in different parts of India reported the prevalence of tobacco consumption ranging from 8.7% to 50.7%.<sup>18-29</sup> The cultural & geographical factors may be the reason for such a wide variation. The cigarette smoking was most common form of tobacco use in the present study, this is also shown by study done by Selokar et al.<sup>29</sup> In this study, cause for initiating tobacco use was mainly academic stress (30%), followed by parents smoking (26%) which is also shown by Sargent JD et al<sup>30</sup> in their study, while in studies done by Ganesh et al<sup>20</sup>, Aggarwal et al<sup>22</sup>, Kumari et al<sup>23</sup>, Basu et al<sup>24</sup>, Sharma et al<sup>25</sup> and Selokar et al<sup>29</sup> the peer pressure was observed to be the main cause for initiation.

The tobacco consumption among female students was lower to that of male in our study. This was statistically significant and the similar findings have been shown by Ramakrishna et al<sup>18</sup>, Chatterjee et al<sup>19</sup>, Basu et al<sup>24</sup> and Thankappan et al.<sup>28</sup> In the present study high level of awareness (95%) about the adverse effect of tobacco consumption is comparable to the studies done by Khan et al<sup>21</sup> in Bareilly (89.53%) and Sharma et al<sup>25</sup> in Dehradun (91.8%).

According to the WHO, interrelation exists between poverty and smoking. Low income individuals were found to smoke more than high income counterparts and smoking exacerbated poverty,<sup>31</sup> Nevertheless, the results of present study do not lend support to such an association. The argument of economic advantage with high family income seems to provide explanation of slightly higher probability of smoking among

children as they can afford to purchase more cigarettes than children from low-income class. So we should make a strategy to limit youth access to tobacco products by making Smoke free air laws and state, by enforcing age restrictions for sales, increasing Taxes and cost of tobacco products, Restrictions on flavored tobacco products.

### Conclusion:

We can conclude, though the awareness among medical students regarding harmful effects of tobacco use was very high but they got this knowledge mainly from the electronic media. On the basis of our study, it is recommended that as these future doctors have an opportunity to play an important role in the tobacco cessation and prevention efforts in the community, so it is essential to introduce teaching on tobacco dependence and cessation early in the courses of the medical colleges, to discourage smoking among the medical students and to increase awareness regarding all aspects of tobacco use.

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