

# Perceptions and Factors Influencing Tobacco use among 15 to 20 Year Old College Students in Bangalore City

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## ABSTRACT

**Introduction:** Initiation and maintenance of tobacco use in childhood and adolescence is linked to exposure to tobacco marketing efforts, role modelling by parents/ other adults, peer pressure, it's also associated with a wide range of risk factors including: the ease of obtaining cigarettes, socioeconomic status and depictions of smoking in films, television and other media.

**Material and methods:** A cross-sectional questionnaire study based on Global youth tobacco survey (GYTS) was undertaken. Information regarding Parental smoking, smoking among peer, influence of media, advertisements, second hand smoke and banning of smoking in public places among students were ascertained. Socio economic status was derived using the Kuppuswamy scale. Simple random sampling was employed to select the study participants from government and private colleges and SPSS version 14 was used to analyse descriptive data.

**Results:** Majority of the ever smokers belonged to the upper middle class. Among the current smokers, 19.3% reported their fathers to be smokers, 28.4% said that they would definitely smoke if offered by a friend, 38.8% of students reported to have seen actors smoke a lot of times on TV videos, movies and other media. Awareness regarding harms of passive smoking was alarmingly low among government institutions

**Conclusion:** Factors initiating, influencing and maintaining tobacco use among 15-20 range from family influence as in parental tobacco use, use by friends; exposure to advertisements in the media and community; access and availability of tobacco products in the area of residence.

**Keywords:** GYTS, Parental use of tobacco, Peer pressure, Tobacco use

## INTRODUCTION

Tobacco use has already been established as a global phenomenon among the youth. tobacco use begins as early as in childhood and adolescence.<sup>1</sup> the youth are especially vulnerable to social influences like tobacco marketing tactics and role modelling by celebrities who use tobacco products off screen and especially on screen as in movies and advertisements.<sup>2,3</sup> This is also a time in life of heightened sensitivity to normative influences.

Research in developed countries has pointed out that use of other addictive substances, tobacco and substance abuse by close family, aggressive marketing by tobacco industries coupled with low awareness and ignorance about the harms of tobacco, and to a certain extent, socio economic status are all potential triggers to tobacco use initiation at a young age.<sup>4,5</sup> Children in families where siblings or parents smoke are up to 3 times more likely to become smokers themselves than children of non-smoking families.<sup>6</sup> Peer pressure is a phenomenon that exists for all ages. Peer influences the young to indulge in experimentation with smoking and tobacco use, where in access may be provided by them on social occasions, gatherings or sometimes as a 'rite of passage' ritual to adulthood. Youth who do not conform to

such peer pressure may face social non acceptance.<sup>7</sup> Peer groups gives comfort to children and adolescents, as it enables a sense of self-esteem and acceptance.<sup>8</sup>

The various reasons as to why adolescents and young adults take up smoking cigarettes and substances abuse are many, some not well understood. However, aggressive industry marketing activities may be partly responsible for the increase in smoking observed among college students and young adults in general.<sup>9</sup> Prevention of tobacco use is based on the understanding that if the habit does not establish in the formative years of the child, especially during adolescence, the less likely that it will be imbibed later in adulthood.<sup>10,11</sup> Even infrequent experimental smoking in adolescence significantly increases the risk of adult smoking.<sup>12</sup>

The present study was an attempt to elicit the impact of parental and peer on tobacco use among the 15 to 20 year old college students, to assess the influence of media and advertising on tobacco use among them and also, to elicit their knowledge and attitude towards cessation or quitting of the tobacco habit, second hand smoke and banning of smoking in public.

## MATERIAL AND METHODS

Information regarding Parental smoking, smoking among peer, influence of media, advertisements, attitude towards quitting, knowledge about low tar, second hand smoke, cessation and banning of smoking in public places among students were ascertained using a questionnaire derived from the Global youth tobacco survey (GYTS). Ascertainment of tobacco exposure was done using the terminologies suggested by Global youth tobacco survey (GYTS).<sup>13</sup> Socio economic status was derived using the kuppuswamy scale.<sup>14</sup>

Pilot study was done and the proportion of tobacco use in the reference population was taken as 40%. Based on this, sample size was calculated at 2304 participants and rounded off to 2400 study participants. Bengaluru is divided into north and south zones with 236 colleges in north zone and 306 colleges in south zone. From north Zone, 4 Government and 1 Private College

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from the north zone, 3 Government and 3 Private Colleges from the south zone offering pre university and degree courses were selected randomly until the required sample size was obtained. The study participants were selected using simple random sampling from pre university and degree students. Ethical clearance was obtained by the institutional ethical board, permissions to conduct the study was obtained from Board of Pre-University and collegiate education and from the respective college authorities.

## STATISTICAL ANALYSIS

SPSS version 14 (spss inc. Chicago, USA) was used for data analysis. Descriptive statistics like mean and percentages were used to interpret data.

## RESULTS

Among the 2400 study participants, 1009 (42.04%) were from government educational institutions and 1391 (57.9%) from private educational institution. The study group comprised age groups from 15 through 20 years of age. 1367 (57%) were males and 1033 (43%) were females.

Use of Cigarettes was reported by 307(12.8%) students. 176(7.3%) students them reported current use of cigarettes and 240(10%) reported ever use of smokeless tobacco. 41(1.7%) were daily smokers.

**Current Users of Cigarettes with respect to Socioeconomic Status:** Among the 307 ever smokers, majority, 119(38.7%) belonged to the upper middle class. Likewise, it was also observed that majority of smokers in various categories were more from the upper middle social class. (Table-1)

**Distribution of Smokers with respect to Parental use of Cigarettes:** Among the 2398 respondents, 616(25.7%) had fathers who smoked. Among the 176 current smokers, 34(19.3%) have fathers who smoke, 5 (2.8%) had both parents to be smokers 3(1.7%) had mothers who smoked. It was also observed that among the frequent smokers, 13% had fathers who were smokers and among daily smokers, 24.4% reported fathers to be smokers,

**Distribution of Ever users with respect to use of cigarettes if offered by a friend:** Among the 307 students who reported ever use of tobacco, 108(35%) said that they would definitely not smoke if offered by their best friends, 48(15.6%) said that they would probably not smoke if offered cigarette, 86(28%) said that they would probably smoke if offered 65(21.2%) said that they would definitely smoke if offered by their best friends. Among the 2091 students who reported never use of tobacco, 1799(86%) said that they would definitely not smoke if offered by their best friends and 84(4%) said that they would definitely

smoke if offered by their best friends.

**Distribution of current users with respect to use of cigarettes if offered by a friend:** Among the 176 students who were current smokers, 50(28.4%) said that they would definitely smoke if offered by their friends.

Among the 41 daily smokers, 17(41.5%) said that they would definitely smoke if offered by their friends and 15(36.6%) said that they would probably smoke, only 6(14.6%) students said that they would definitely not smoke if offered by their friends. Among the 123 ex-smokers, 73(59.3%) said that they would definitely not smoke if offered by their friends, 21(17.1%) said that they would definitely smoke if offered by their best friends. Among the 112 occasional smokers, 44(39.3%) students said that they would probably smoke if offered by a friend 24(21.4%) said that they would definitely smoke and Among the 23 frequent smokers, 7(30.4%) students said that they would probably smoke, 9(39.1%) said that they would definitely smoke if offered by their friends

**Distribution of Ever users with respect to viewing TV, video and actors smoking on screen:** Among the 2398 students 933(38.8%) students reported to having seen actors smoke on screen in videos and TV, a lot of times, 1173(48.9%) students reported to having seen actors smoke on screen in videos and TV sometimes Among the 307 students who reported ever use of tobacco, 154 (50.2%) reported to having seen actors smoke on screen in videos and TV, sometimes at least and 121 (39.4%) students reported to having seen actors smoke on screen in videos and TV, a lot of times Among the 176 students who currently use cigarette, 63 (35.7%) reported to have seen actors smoke on screen a lot of times and 95 (53.9%) have seen actors smoke on screen atleast sometimes.

**Distribution of students with respect to their opinion on passive smoking:** Table-2 and 3 shows the awareness regarding opinion of students on passive smoking. Awareness regarding the harms of passive smoking was alarmingly lower among the students of government institutes as compared to students from private institutions

**Distribution of Government & Private College Students with Respect to their opinion on banning Smoking in Public Places:** Among the 1009 government students, 340(33.7%) students were not in favor of banning smoking from public places, only 668(66.2%) were in favor of banning smoking from public places. Among the 1389 students from private institutions, 238(17.1%) students were not in favor of banning smoking from public places, only 1149(82.7%) were in favor of banning smoking from public places

Socio economic status	Current smoker					Total
	Never	Ex smoker	Occasional smoker	Frequent smoker	Daily smoker	
Upper Class	75(3.5)	3(0.3)	2(1.7)	-	-	80
Upper middle	903(43)	61(49.5)	71(63.3)	12(52)	22(53.6)	1069
Lower Middle	492(23.4)	24(2.1)	13(11.6)	2(8.6)	4(9.7)	535
Upper lower Class	545(25.9)	32(2.8)	16(14.2)	7(30)	9(23)	609
Lower Class	84(4)	3(0.3)	10(8.9)	2(8.6)	6(14.6)	105
Total	2099(87.5)	123(5.1)	112(4.7)	23(1.0)	41(1.7)	2398(100)

**Table-1:** Distribution of Current users of Cigarettes with respect Socioeconomic Status

Table-4 shows the opinion of current smokers with respect to banning smoking in public places

**Distribution of government & private college students who think smoking or chewing tobacco is harmful:** Among the total population of 2398, 1580(65.9%) students believed the chewing tobacco or smoking is definitely harmful to health and 227 (9.5%) students believed it to be probably harmful to health. 35(1.5) students believed it's probably not harmful to health and 180(7.5%) students believed the chewing tobacco or smoking is definitely not harmful to health, 374(15.6%) did not know. Among the college categories, out of the 1009 students from government institutions, 461(45.7%) students believed the chewing tobacco or smoking is definitely harmful to health and 121(12%) students believed that chewing tobacco or smoking is probably harmful to health, 23(2.3%) students believed that its

probably not harmful to health, 118(11.7%) students believed the it is definitely not harmful to health and 286(28.3) did not know.

Among the 1389 students from private institutions, 1119(80.6%) students believed the chewing tobacco or smoking is definitely harmful to health, 106(7.6%) students believed that it is probably harmful to health, 12(0.9%) students believed the chewing tobacco or smoking is probably not harmful to health, 62(4.5%) students believed the chewing tobacco or smoking is definitely not harmful to health and 88(6.3%) did not know.

**DISCUSSION**

The present study intended to assess Knowledge, attitude and perceptions regarding factors influencing Tobacco use among 15 to 20 year old college students in Bangalore city. Adolescence, college years are an important phase of experimentation in an individual's life, risk taking is a commonly observed behaviour in this age group. Cigarette advertising also lures adolescents and young adults to start smoking. It has been observed that adolescents and young adults do not resort to cigarettes and tobacco use in isolation. Important others like friends, classmates, and close family are the most important factors influencing smoking of adolescents and young adults in the social system.<sup>15,16</sup> Nearly all first use occurs in secondary as they are usually easily accessible, relatively inexpensive alternatives used before other drugs are tried out.<sup>17</sup> Furthermore, it has been asserted that alcohol and tobacco were important "gateway" drugs that lead to increased use of other illegal drugs.<sup>18</sup>

In our study, it was seen that among the daily smokers, 22 (53.6%) belonged to the upper middle class. In the lower socio-economic group, 6 (14.6%) reported to be daily smokers. The personal income of youths in the form of 'pocket money" is usually dependent on the socio economic status of caretakers/ parents and hence young people with more dispensable income showed higher levels of smoking ,contrastingly, other studies have shown that increasing levels of parental socioeconomic variables, such as social class and education, occupation and profession have often been found to be inversely related to tobacco use in adolescents.<sup>19-21</sup> Among the 41 daily smokers 10(24.4%) have fathers who were smokers. Among the 176 current smokers, 34(19.3%) have fathers who smoke. Whereas Mbulungi and Muuala<sup>22</sup> have reported that current smokers than non smokers were more likely to be exposed to passive smoking at home, in the form of parental use of tobacco (56.4% versus 15.9% respectively). Similarly V.Singh and R.Gupta<sup>23</sup> reported that tobacco use or cigarette smoking among family

Do you think smoke from other people's cigarette is harmful to you?	College category		Total
	Government institutes students	Private institutions students	
Did not respond	1(0.1)	2(0.1)	3(0.1)
Definitely not	118(11.7)	67(4.8)	185(7.7)
Probably not	30(3)	75(5.4)	105(4.4)
Probably yes	188(18.6)	219(15.8)	407(17)
Definitely yes	405(40.1)	955(68.8)	1360(56.7)
I don't know	267(26.5)	71(5.1)	338(14.1)
Total	1009	1389	2398(100)

**Table-2:** Distribution of government and private students with respect to their opinion on passive smoking

Do you think smoke from other people's cigarette is harmful to you?	Educational course category		Total
	Pre-university students	Degree students	
Did not respond	1(0.1)	2(0.1)	3(0.1)
Definitely not	76(6.5)	109(8.9)	185(7.7)
Probably not	52(4.4)	53(4.3)	105(4.4)
Probably yes	184(15.7)	223(18.2)	407(17)
Definitely yes	687(58.5)	673(55.0)	1360(56.7)
I don't know	175(14.9)	163(13.3)	338(14.1)
Total	1175	1123	2398

**Table-3:** Distribution of government and private students with respect to their opinion on passive smoking:

Gender	Are you in favor of banning smoking in public places	Current use of cigarette					Total
		Never User	Ex-smoker	Occasional Smoker	Frequent smoker	Daily Smoker	
Males	Did not respond	1 (0.1)					1 (0.1)
	Yes	825(74.3)	82(76.6)	67(74.4)	14(63.6)	17(48.6)	1005(73.6)
	No	285(25.7)	25(55.1)	23(25.6)	8(36.4)	18(51.4)	359(26.3)
	Total	1111	107	90	22	35	1365
Females	Did not respond	2(0.2)					2(0.2)
	Yes	783(79.3)	13(81.3%)	13(59.1)		3(50.0)	812(78.6)
	No	203(20.5)	3(18.8)	9(40.9)		3(50.0)	219(21.2)
	Total	988	16	22	1	6	1033

**Table-4:** Distribution of current smokers with respect to their opinion on banning smoking in public places

members had a strong impression on its prevalence in children. In our study, Among the students who reported ever use of tobacco, 65(21.2%) said that they would definitely smoke if offered by their best friends and among the current smokers, 50(28.4%) said that they would definitely smoke if offered by their friends. 17(41.5%) of the daily smokers, said that they would definitely smoke if offered by their friends. This aspect is supported by many other studies. Best friends are said to have a bigger influence been noted than that of other good friends or peers of the same age.<sup>24</sup> Regardless of the definition used, however, peer smoking was consistently found to be related to adolescent smoking initiation, maintenance and intentions.<sup>25-28</sup> Among the 176 students who currently use tobacco, 63(35.7%) reported to have seen actors smoke on screen a lot of times and 95(53.9%) have seen actors smoke on screen atleast sometimes. However in a study by Srinath Reddy & Prakash Gupta<sup>29</sup> 42.2% of current users have reported to have seen a lot of Gutkha and tobacco related advertisements in the media. Sreeramareddy and Kishore<sup>30</sup> in 2007 in Nepal they have reported 48% influenced by television, which is higher than the present study.

In the present study, 56.7% students believed that smoke from other peoples smoke is harmful and is similar to that of Srinath Reddy & Prakash Gupta<sup>29</sup>, where 57.9% agreed that smoke from other peoples smoke is harmful whereas in a study in Uganda by Mpabulungi and Muula<sup>22</sup>, 84.2% of students agreed that smoke from other people's cigarette is definitely harmful which is much higher than the present study.

In our study, among the current users of cigarette 62(35.2%) were not in favor of banning smoking and 114(64.7%) were in favor of banning smoking in public spaces.

Comparable to Srinath Reddy & Prakash Gupta<sup>29</sup> GYTS 2002-2004 where 53.9% of current smokers and Mpabulungi and Muula<sup>22</sup> reported that 54.4% of current smokers were in favor of banning smoking in public spaces.

In the present study, only 461(45.7) students from government institutions believed the chewing tobacco or smoking is definitely harmful to health whereas among the private institutions, this awareness was much higher, 1119(80.6) students believed the chewing tobacco or smoking is definitely harmful to health. These above mentioned parameters could not be compared as there was paucity of studies done in this regard

### Limitations

Global youth tobacco survey is employed on students of the ages 13–15 years and data available from sparse studies is limited to this age group. Our study was done on age groups 15 to 20 years and therefore there was a paucity of literature for comparison purposes. Also, in India, adolescent population faces a big dropout after schooling, As our study was limited to students attending only colleges, it is important that this survey must be extended to all those youth who do not attend schools or colleges, also among those in vocational courses or in employment.

Moreover, data collected in our study represents only those students who were present in the college on the day of the survey and those who completed the questionnaire. The student response rates were high implying that bias due to absence or non response was low. The data collected was self-reported by students, underreporting or over reporting of their perceptions, knowlwdge regarding tobacco use may be one of the

limitations, but the influence f this bias could not be ascertained. Furthermore, we were also not able to elicit information about beedi smoking and hukka smoking which has become a current fad with the young crowd in the recent times, as this study dealt with only cigarette and smokeless tobacco use.

### CONCLUSION

The myriad reasons why adolescents and young adults take up smoking cigarettes and using other substances are very complex and less understood. Probable reasons may be because of increased feelings of social anxiety, loneliness and peer pressure and also as a coping mechanism to relieve stress or emotional pain in some way. Factors initiating, influencing and maintaining tobacco use among 15-20 age group range from family influence as in parental tobacco use, tobacco use by friends; exposure to advertisements in the media and community; access and availability of tobacco products in the area of residence and also, level of awareness about the harmfulness of tobacco and passive smoking. Tobacco industry tactics to attract the youth are also important contributions for tobacco use among youth.

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