

Original Research Article

A cross-sectional study to assess the prevalence of tobacco abuse among adolescents in urban field practice area under Bangalore Medical College and Research Institute

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ABSTRACT

Background: Worldwide tobacco usage is described as the single most important preventable cause of mortality and morbidity. Its rapid spread and widespread acceptance characters the addition. Only the mode of delivery has changed. In spite of the knowledge and proven association of major diseases with tobacco, its continued use is an important public health issue. The objective of the study was to assess the prevalence of tobacco abuse among adolescent age group in urban field practice area under Bangalore Medical College and Research Institute, Bangalore.

Methods: A cross-sectional study was conducted at H. Siddaiah road, urban field practice area under Bangalore Medical College & Research Institute (BMC & RI), Bangalore during the period of August 2016- October 2016 among adolescents (both boys and girls) residing in that area. Sample Size was calculated to be 115. Data were collected using a pre-tested questionnaire by interview method. Data were analyzed by descriptive statistics.

Results: Out of 115 study individuals, 71 (61.73%) have used some form of tobacco. 64 (55.65%) individuals have used a smoking form of tobacco, of which 42 (65.62%) were boys and 22 (34.37%) were girls. 28 (24.34%) individuals have used a smokeless form of tobacco, of which 19 (67.85%) were boys and 9 (32.14%) were girls.

Conclusions: Tobacco has posed a major threat to the upcoming generation. Health education should be given to the adolescents regarding health hazards due to tobacco use.

Keywords: Tobacco, Abuse, Adolescent, Cigarette, A smokeless form of tobacco

INTRODUCTION

Tobacco products are defined as products made entirely or partly of tobacco leaf as raw material, which can be intended to be smoked, sucked, chewed or snuffed. All contain nicotine, the highly addictive psychoactive ingredient.¹

Tobacco usage is one of the main risk factors for a number of chronic diseases like lung diseases, cancer, and cardiovascular diseases. It does not spare even a single organ in the body. Despite this, it is common

throughout the globe. A number of countries have legislation regarding restricting tobacco and tobacco products advertising and regulating who can buy and use tobacco products, and where the people can smoke.¹ Killing around 6 million people a year, the tobacco epidemic is one of the biggest public health issues the world has ever faced. Out of those 6 million deaths, 5 million deaths are due to direct tobacco use while more than 6,00,000 are as a result of non-smokers being exposed to second-hand smoke. Nearly 80% of the smokers live in low- and middle-income countries, where the burden of tobacco-related morbidity and mortality is heaviest.²

WHO identifies adolescence, from ages 10 to 19 years, as the period of human growth and development that occurs after childhood and before adulthood. It represents one of the critical transition periods in the lifespan of a man and is characterized by a tremendous pace in growth and changes that is next to that of infancy.³ They tend to experiment with many good as well as bad behaviours mainly due to curiosity, exposure to media and peer pressure. Majority of people using tobacco today began their habit when they were adolescents. Prohibiting the tobacco products sale to people aged less than 18 years and increase the cost of tobacco products by increasing the taxes and by banning advertisements related to tobacco products and ensuring the environment free from smoke are crucial. Worldwide, at least 1 in 10 adolescents aged 13 to 15 years uses tobacco, although there are places where it is much higher. Smoking cigarette seems to be decreasing among adolescents aged 13 to 15 years in some high-income countries.⁴ Thus by viewing all these issues the objective of this study is to assess the prevalence of tobacco abuse among adolescent age group in urban field practice area under Bangalore Medical College and Research Institute, Bangalore.

METHODS

A cross-sectional study was conducted at H. Siddaiah road, Urban Field Practice Area under Bangalore Medical College and Research Institute (BMC & RI), Bangalore during the period of August 2016 – October 2016 among adolescents (both boys and girls) residing in that area. After going through the previous literature the prevalence of tobacco abuse among adolescents was found to be 60%. With 15% relative precision and 95% confidence interval, using the formula $n = z^2pq/d^2$, the sample size was calculated to be 114 (rounded to 115).

The study area H. Siddaiah road has 3 sectors. Under the 1st sector, there are 5 slums, under 2nd sector, there are 2 slums and under 3rd sector, there are 5 slums. Two slums from the first sector, one from the second sector and two from the third sector were selected randomly. Each house was surveyed prior to the study to register the number of adolescents in all the slums. The sample was selected randomly from the register using a random number table till the sample size was achieved.

A house to house visit was made to collect the data. The objective of the study was explained clearly to the parents and verbal consent was obtained. Those who were not willing to participate in the study were excluded. After getting consent from the parents, each adolescent was interviewed separately by using a pre-tested, semi-structured questionnaire and they were assured of confidentiality. Data was analysed by descriptive statistics and the results were presented in terms of percentage.

RESULTS

Out of the total sample size, 62 were boys and 53 were girls. Nearly 46 of the adolescents belong to mid-

adolescent (14-16), 40 were from late adolescent age group and 29 were from early adolescent age group. Most of the study participants belong to the upper lower socio economic status (Table 1).

Table 1: General information (n=115).

	Boys	Girls	Total
Age (in years)			
Early adolescent (10-13)	16	13	29
Mid adolescent (14-16)	26	20	46
Late adolescent (17-19)	20	20	40
Gender	62	53	115
Socio-economic status			
Lower middle	17	12	29
Upper lower	29	26	55
Lower lower	16	15	31

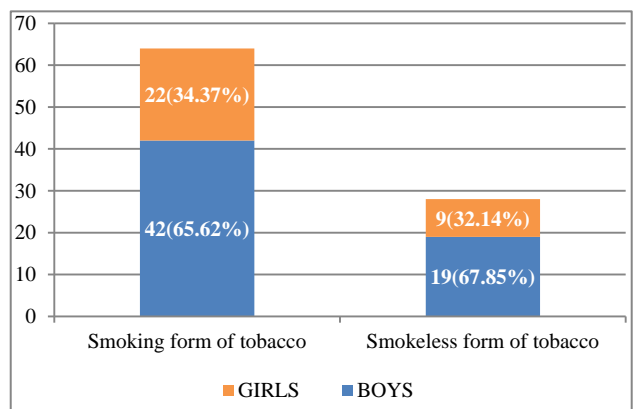


Figure 1: Prevalence of tobacco abuse among adolescents.

Out of 115 study individuals, 71 (61.73%) have used some form of tobacco. 64 (55.65%) individuals have used the smoking form of tobacco, of which 42 (65.62%) were boys and 22 (34.37%) were girls. 28 (24.34%) individuals have used the smokeless form of tobacco, of which 19 (67.85%) were boys and 9 (32.14%) were girls (Figure 1).

Smoking was found to be more common among mid and late adolescent age groups (42.18%). Most of the smokers were from upper lower socio economic status (43.75%) (Table 2). Adolescents were exposed to tobacco use as early as 8-9 years and 9.37% had started smoking at that age. Majority of the smokers among the study participants started smoking at the age of 12-13 years (40.62%), among which 65.38% were boys and 34.61% were girls (Table 3). Smokers using less than 1cigarette per day were 51.56%. Nearly 9.37% smokers used as high as 6-10 cigarettes per day (Table 4). Majority of the smokers (51.56%) got introduced to smoking by family members (cousins, brother, uncle, father). Peer group pressure accounts for 37.5%. Most of them started smoking out of curiosity (45.31%) (Table 5).

Table 2: Socio demographic profile of the smokers.

Age (years)	N	%
Early adolescent (10-13)	10	15.62
Mid adolescent (14-16)	27	42.18
Late adolescent (17-19)	27	42.18
Sex		
Male	42	65.62
Female	22	34.37
Socio-economic status		
Upper	0	0
Upper middle	0	0
Lower middle	16	25
Upper lower	28	43.75
Lower lower	20	31.25

Table 3: Age at which first started smoking.

Age (in years)	Boys N (%)	Girls N (%)	Total N (%)
8-9	3 (50)	3 (50)	6 (9.37)
10-11	14 (77.7)	4 (22.2)	18 (28.12)
12-13	17 (65.38)	9 (34.61)	26 (40.62)
14-15	8 (57.1)	6 (42.85)	14 (21.87)

Table 4: No of cigarettes used per day.

No. of cigarettes	Boys N (%)	Girls N (%)	Total N (%)
<1	18 (42.85)	15 (68.18)	33 (51.56)
1	10 (62.5)	6 (37.5)	16 (25)
2-5	8 (88.88)	1 (11.1)	9 (14.06)
6-10	6 (100)	0	6 (9.37)

Table 5: Influencers for smoking and reason for smoking.

	Boys N (%)	Girls N (%)	Total N (%)
Got influence for smoking by			
Friends	12 (50)	12 (50)	24 (37.5)
Family	23 (69.6)	10 (30.3)	33 (51.56)
Social media	7 (100)	0	7 (10.93)
Reason for smoking			
Enjoyment	6 (46.1)	7 (53.8)	13 (20.31)
Curiosity	20 (68.9)	9 (31.03)	29 (45.31)
To relieve stress	11 (68.7)	5 (31.2)	16 (25)
To be accepted by friends	5 (83.3)	1 (16.6)	6 (9.375)

Those who have smoked on last one month were considered as current smokers and 17.39% were found to be current smokers. Out of 115, 39.13% think that they would be able to stop smoking if they want to stop, 24.34% has tried to stop smoking, 20.86% has taken some form of help to stop smoking and 52.17% has plans of using tobacco in future.

DISCUSSION

Prevalence of tobacco use varies in different regions of the country. The Study conducted by Katoki et al, at Guwahati urban slums shows that prevalence of tobacco abuse among adolescents was 87.9%.⁵ Another study conducted by Kokiwar et al at Karimnagar district Andhra Pradesh shows the prevalence as 60%, and this study shows the prevalence to be 61.73% (all forms of tobacco products).⁶ One study among the 400 million individuals aged 15 years and over in India, showed that 42% use tobacco in one form or other. Some 72% of tobacco users smoke bidi, 12% smoke cigarette and 16% use tobacco in smokeless form.⁷ Data gathered for Uttar Pradesh by Rani and Bonu et al. showed that the prevalence of tobacco smoking ranges from 28.2–35.4%.⁸ Another study at Mumbai showed the prevalence of the smoked form of tobacco to be 24% and prevalence of the smokeless form of tobacco to be 49.77%.⁹

Almost all the studies show the prevalence of tobacco use more among males than females. The Study conducted at Mumbai shows that drug abuse is more among upper lower class (44.26%), even this study shows that prevalence of tobacco abuse was more among upper lower class (43.75%).⁹

The Study conducted by Kokiwar et al at Karimnagar district, Andhra Pradesh shows the peer pressure for tobacco abuse to be 52.9%.⁶ Whereas this study shows family members to be the leading cause for the introduction of tobacco among adolescents (51.56%). The Study conducted by Katoki et al, at Guwahati urban slums shows that curiosity (73.4%) as leading cause for tobacco abuse and this study also shows curiosity as the major cause (45.31%).⁵

Limitation

This study is conducted among adolescents in urban slums under BMCRI. Thus the study findings cannot be generalized to the general population.

CONCLUSION

Tobacco abuse is more common among mid-adolescents. Most of the smokers belong to Upper-lower class. Majority of them started abusing in early adolescents. The Smoke form of tobacco is more common than smokeless form. Most of them started smoking out of curiosity. Most of them got introduced to smoking by family members. Most of them have plans of using tobacco in the future.

Recommendations

Tobacco has posed a major threat to the upcoming generation. Health education should be given to the adolescents regarding health hazards due to tobacco use.

Selling these tobacco products to adolescents should be banned.

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