

Knowledge Attitude Practice on Consumption of Tobacco Products among Urban High School Students in Telangana, India

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ABSTRACT

Introduction: Tobacco consumption has an enormous health effects. It is an epidemic with adolescence being more susceptible. Current study deals with Knowledge Attitude Practice and determinants of tobacco product consumption in high school students. Study objectives were to assess knowledge attitude and practice on tobacco products among urban high school students and to assess determinants of tobacco consumption in urban high school students.

Material and methods: A Cross-sectional study was done in urban govt and private high school students. Schools were selected by random sampling method (50% of entire schools in urban turkapally), all students who attended schools on the date of interview were included. Ethical committee clearance, consent from school head and assent from children were obtained. Data collected by interview method (socio-demographic details and knowledge, attitude and practice on tobacco consumption) in 532 students using pre design semi structured questionnaire and analysed using Microsoft excel 2007 and SPSS version 20. Chi-square statistic was used. $P < 0.05$ was taken as significant.

Results: Prevalence of tobacco consumption was 7.7% in the current study. Only 23% of the students know it is illegal to smoke in public places. Knowledge on de-addiction centres/ help line (0.3%) was very poor. Proportion of tobacco consumption was statistically more in the age group of 14-16years, males (12.5%), in students belonging to government school, 10th standard and in students from joint family

Conclusion. Family and school (30.3%) are having very little role as source of antitobacco messages in contrast 10.5%, 7.5% and 3.8% were influenced to consume tobacco by parents/guardians, friends/ siblings and role model respectively.

Keywords: Knowledge, Attitude, Practice, Urban, High School Students, Tobacco Consumption.

tobacco use. One character of tobacco related mortality in India is the high incidence of oral cancer, more than that of lung cancer and accounting for almost half of all oral cancers in the world.⁴

Many life style factors, including media depictions and cultural and societal acceptance of tobacco use, combined with tobacco's addictive capacity, are making tobacco usage more prevalent.⁵ One in eight (12.2%) daily tobacco user aged 20-34 had started smoking before age 15 years, while more than one-third (35.8%) of all daily smokers have started smoking when they were younger than 18 years. one-third (35.0%) of the non-smokers were exposed to second hand smoke (SHS) at home.⁶ As per Global Youth Tobacco survey (GYTS-4) 2019 India fact sheet (13-15 years), highest current use of any form of tobacco use was in Arunachal Pradesh and Mizoram (58% each) and lowest was in Himachal Pradesh (1.1%). More than 29% of students in India were exposed to second-hand smoke.⁷

Adolescents, in today's world are increasingly exposed to changing life-styles that have negative impact on health. Addictions developed in adolescence are malleable or likely to persist into adult life affecting their mental health too.⁸ Underlying factors responsible for addictions in early adolescence when known can be prevented. Hence current study deals with knowledge, attitude and practice (KAP) among high school children with an emphasis on prevalence and socio-demographic determinants on consumption of tobacco products.

Study objective was to assess knowledge attitude and practice on tobacco products among urban high school students and to assess determinants of tobacco consumption in urban high school students.

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INTRODUCTION

Tobacco use is the leading preventable cause of deaths worldwide. The role of smoking in the development of lung cancer, chronic obstructive pulmonary disease, cardiovascular diseases and many other Non communicable diseases was well established already. Every year an estimated seven million deaths are attributed to consumption of tobacco products.¹ India is the third largest tobacco producing country and second largest consumer of tobacco globally. Mortality due to tobacco consumption in India is estimated to be 1.3 million.^{2,3} Out of these, one million are due to tobacco smoking and the rest due to smokeless

MATERIAL AND METHODS

A Cross-sectional study was done in an urban area during June 2019 to December 2019. High school students belonging to both govt and private schools were the study population. There were 6 government and 2 private high schools in the study area. Of which 50% schools (that is 3 government and 1 private school) were selected by simple random sampling method. All the high school students who attended the selected schools on the day of interview were considered for study.

Inclusion criteria: High school students of either sex, who gave assent and were present at the time of interview.

Exclusion criteria: Who did not give assent or attend the school.

Sample size calculated by formula $4PQ/L^2$.

where P= Prevalence in the study population taken as 50% (Maximum allowable prevalence when prevalence is unknown).

$Q=1-P$, $1-0.05=0.05$

L=Precision (10%)

sample size calculated $n=400$.

Procedure: Institutional ethical committee clearance, permission from District education officer and head of the schools were obtained. Assent from the students was taken and informed that the information will be used only for research purpose and identity will not be disclosed. A total of 532 students, who gave assent were included in the study. Data collected by interview method using pre designed pretested semi structured questionnaire by trained interviewers. Cronbachs alpha of the questionnaire was calculated to be 0.9. Data on socio demographic variables, Knowledge attitude and Practice on various tobacco products and their consumption was recorded. Data entered in Microsoft excel 2007, Statistical software spss version 20 was used and $P<0.05$ was taken as significant. Data represented as proportions and statistical analysis was done using Chi-square statistic test.

RESULTS

High school students were interviewed, out of 532 students, majority of them belong to 12yrs age (189/35.5%), 55.6%

Socio-demographic variables	Groups	Frequency (n=532)	Percentage
Age	11 years	11	2.1%
	12 years	189	35.5%
	13 years	152	28.6%
	14 years	133	25%
	15 years	37	6.9%
	16 years	10	1.9%
Gender	Male	296	55.6%
	Female	236	44.4%
Education	8 th standard	204	38.3%
	9 th standard	187	35.2%
	10 th standard	141	26.5%
Type of family	Nuclear family	427	80.3%
	Joint family	105	19.7%
Father's education	Illiterate and Primary education	47	8.8%
	Secondary education	164	30.8%
	Higher secondary	183	34.5%
	Under graduate	121	22.7%
	Post graduate	17	3.2%
SES according to BG Prasad classification	Class 1	73	13.7%
	Class 2	128	24.1%
	Class 3	216	40.6%
	Class 4	115	21.6%
	Class 5	0	0%
Type of school	Government	209	39.3%
	private	323	60.7%

Table-1: Distribution of students based on socio-demographic variables.

Knowledge on various forms of tobacco (n= 532)			
Smoking forms of tobacco (n/ %)		Non smoking forms of tobacco (n/ %)	
Bidi and cigarette	517/97.2%	Pan masala	434/81.6%
Chillum	3/0.6%	guthka	417/78.4%
Hookah	171/32.1%	khaini	380/71.4%
chutta	483/90.8%	thambaku	121/22.7%
dhumthi	2/0.4%	snuff	83/15.6%

Table-+2: Knowledge of students on various forms of tobacco

were males, 38.3% students belong to class 8th standard, many (427/80.3%) were from nuclear family, 183(34.5%) students have fathers with higher secondary education followed by 164(30.8%) with secondary education, 216(40.6%) students belongs to class 3 Socio economic status (SES) according to BG Prasad classification and 323(60.7%) belongs to private school. (Shown in table 1)

Students have good knowledge on both smoking and non-smoking forms of tobacco (multiple responses were given). Most of the smoking forms of tobacco students aware of, were bidi cigarette (97.2%) and chutta (90.8%) and 32.1% were aware of hookah. Smokeless forms of tobacco students aware of, were pan masala (81.6%) followed by ghutka (78%) and khaini (71.45%). (Shown in table 2)

Awareness on health hazards of tobacco consumption was present in 73.1% of students, 32.3% aware that passive smoking is dangerous, 53.2% of students knows that tobacco was sold around school and 22.9% students knows that it is illegal to smoke tobacco in public places. Electronic media (92.5%) and movies (73.7%) were major source of anti tobacco messages with family and school (30.3%) having very little role, 50.6% of students read anti tobacco warning on tobacco products. Knowledge on reversal of health effects on cessation of tobacco (17.1%) and de-addiction centres/

help line (0.3%) was very poor. (shown in table 3)

In current study 10.5%, 7.5% and 3.8% were influenced by parents/ guardians, friends/ siblings and role model respectively. Students who have their family members consuming tobacco were 33.6%. Students already consuming tobacco were 41(7.7%) and 53(10%) students wants to consume tobacco if offered free of cost. Tobacco products were not sold to 3% of students because of their age. (shown in table 4)

Out of 532 students 41(7.7%) students use tobacco products, few students used more than one product, cigarette/bidi smoking (37/90.2%) was the commonest form of tobacco consumption followed by ghutka(13/31.7%) and pan masala (9/22%). Most common reason for starting tobacco consumption was out of curiosity (26/63.4%), followed by fun with friends (23/56.1%), few students gave multiple reasons. Duration of tobacco consumption was > 6 months and > 1 year for 46.3% & 41.5% of students respectively and 12.2% of students started in the recent past 6 months. Students consuming tobacco daily were 15(36.6%). Students who have never thought of quitting tobacco were 26 (63.4%). Withdrawal symptoms were present in 2(4.9%) students. Majority (56%) of students usually borrow their tobacco products. (shown in table 5)

S. No	knowledge on tobacco consumption	Responded Yes (n= 532)	Percentage
1.	Knowledge on health hazards of tobacco consumption	389	73.1%
2.	Aware that passive smoking is dangerous	172	32.3%
3.	Tobacco available or sold around school	283	53.2%
4.	It is illegal to smoke in public places	122	22.9%
5.*	Source of antitobacco messages		
	Electronic media	492	92.5%
	Print media	53	10%
	Movies	392	73.7%
	Family and school	161	30.3%
6.	Read anti-tobacco warning on tobacco products	269	50.6%
7.	Health effects can be reversed if stops smoking at early stages	91	17.1%
8.	Ever heard of tobacco deaddiction centres or help line	2	0.4%
*Multiple responses			
Table-3: knowledge of students on tobacco consumption			

S.No	Attitude on tobacco consumption	Responded Yes (n=532)	Percentage	
1.	Who influenced you for tobacco consumption?			
	None	447	84%	
	Parents/ guardians	56	10.5%	
	Friends/ siblings	40	7.5%	
2.	Does anyone from your family consumes tobacco?	179	33.6%	
	3.	When do you want to start tobacco consumption?		
		Never	456	85.7%
		Already consuming	41	7.7%
Will start In next 6 months		13	2.4%	
	Will start Next year	22	4.1%	
4.	Students who want to consume if offered free of cost.	53	10%	
5.	Did anyone refuse you to sell tobacco products because of your age?	16	3%	
Table-4: Distribution of students based on Attitude on tobacco consumption				

S. No	Practices on tobacco consumption by 41 high school boys	Frequency	Percentage
1*	In what form do you consume tobacco		
	Cigarette/ bidi	37	90.2%
	Ghutka	13	31.7%
	Pan masala	9	22%
	Tobacco chew	3	7.3%
	Snuff	1	2.4%
2*	Reason for starting tobacco consumption		
	Out of curiosity	26	63.4%
	Stress relief	14	34.1%
	Fun with friends	23	56.1%
	Macho sophisticated appearance	11	26.8%
	Others	4	10%
3	Duration of tobacco consumption		
	< 6months	5	12.2%
	> 6months	19	46.3%
	> 1 year	17	41.5%
4	Frequency of tobacco consumption		
	< once in a week	9	21.9%
	>once in a week	17	41.5%
	Daily	15	36.6%
5	Reasons for not to quit tobacco products		
	Never thought	26	63.4%
	Peer pressure	13	31.7%
	With drawl symptoms	2	4.9%
6*	Where do you procure tobacco products		
	Bought by themselves	37	90.2%
	Borrow from someone	23	56.1%
	Steal	6	14.6%
7	Ever used or heard of nicotine patches/ nicotine gums/ nicotine nasal sprays	0	0%
*Item 1, 2 and 6 in table 5 have multiple responses by some of the students.			
Table-5: Distribution based on practices of tobacco consumption			

Proportion of tobacco consumption was more in the age group of 14-16years, more in males (12.5%), more in students belonging to government school, higher among students in 10th standard and in students from joint family which was statistically significant, also the proportion was more in students, whose father's education status was higher secondary education(41.5%) followed by secondary education (31.7%), and in those students whose socioeconomic status was class III(39%) followed by class IV(34.1%) according to BG Prasad classification but was not statistically significant.(shown in table 6)

DISCUSSION

In the current study prevalence of tobacco consumption among urban high school students was 7.7%, where as in study by Singh S et al it was low (2.2%) and high in study by Hirani DR et al (12.2%) and as per GYTS it was 8.5%.^{9,10,7} In this study Students have good knowledge on both smoking {bidi cigarette (97.2%) and chutta (90.8%)} and non-smoking forms of tobacco {pan masala (81.6%), ghutka (78%) and khaini (71.45%)}. Awareness on health hazards of tobacco consumption (73.1%) was low in this study compared with study by Raina et al (94.45%).¹¹ Knowledge on effects of passive smoking and availability of tobacco

around school in this study (32.2% and 53.2%) was high compared to study by Monark J et al (21.7% and 18.8%).¹² In this study 22.9% students knows that it is illegal to smoke tobacco in public places. Source of anti tobacco messages in this study by family and school (30.3%) was little compared to study by V.Singh et al (59% by parents).¹³ Knowledge on de-addiction centres/ help line (0.3%) was very poor in this study.

In current study 10.5%, 7.5% and 3.8% were influenced to consume tobacco by parents/ guardians, friends/ siblings and role model respectively. Students who have their family members consuming tobacco were 33.6%. In the current study students who wants to start tobacco consumption in next 6 months and 1 year(2.4% and 4.1%) was high compared to study by Hirani DR et al (1% and 1.3%).¹⁰

In this study tobacco products were not sold to 3% of students because of their age where as in study by George R M et al 14.3% of the participants reported that the shopkeepers readily sold them tobacco products.¹⁴ In this study 10% of students wants to consume if offered free of cost where as in study by Hirani DR et al it was 12%.¹⁰

Findings of this study shows that smoking form (37/90.2%) was the commonest form of tobacco consumption followed by smokeless form {guthka(13/31.7%) and pan masala

Sociodemographic variables	Tobacco consumption		Total students (n= 532)	χ^2 / P
	Yes (n= 41)	No (n= 491)		
Age group				
11- 13 years	16(39%)	336(68.4%)	352(66.2%)	14.6/0.0001
14 – 16 years	25(61%)	155(31.5%)	180(33.8%)	
Gender				21.56/ <0.00001
Male	37(12.5%)	259(87.5%)	296(55.6%)	
Female	4(1.7%)	232(98.3%)	236(44.4%)	
Type of school				5.264/0.02
Government	23(56%)	186(37.9%)	209(39.3%)	
Private	18(44%)	305(62.1%)	323(60.7%)	
Class studying				14.78/0.0006
VIII	8(19.5%)	196(39.9%)	204(38.3%)	
IX	12(29.3%)	175(35.6%)	187(35.1%)	
X	21(51.2%)	120(24.4%)	141(26.5%)	
Type of family				47.69/ < 0.00001
Nuclear family	16(40%)	411(83.7%)	427(80.3%)	
Joint family	25(60%)	80(16.3%)	105(19.7%)	
Fathers education				3.26/0.514
Illiterate & Primary school	4(10%)	43(8.7%)	47(8.8%)	
Secondary education	13(31.7%)	151(30.7%)	164(30.8%)	
Higher secondary	17(41.5%)	166(33.8%)	183(34.4%)	
Under graduate	5(12.2%)	116(23.6%)	121(22.7%)	
Post graduate	2(5%)	15(3.3%)	17(3.2%)	
Socio economic status (BG Prasad)				5.867/ 0.118
Class I	2(2.4%)	71(14.7%)	73(13.7%)	
Class II	9(21.9%)	119(24.2%)	128(24%)	
Class III	16(39%)	200(40.7%)	216(40.6%)	
Class IV	14(34.1%)	101(20.6%)	115(21.6%)	
Class V	Nil	nil	nil	

Table-6: Socio-demographic factors Versus tobacco consumption

(9/22%)} where as in study by Multani et al it was 22% and 24.4% respectively.¹⁵In current study most common reason for starting tobacco consumption was out of curiosity (26/63.4%), followed by fun with friends (23/56.1%), few students gave multiple reasons. Duration of tobacco consumption was > 6 months and > 1 year for 46.3% & 41.5% respectively, 12.2% of students started in the recent past 6 months, which shows the negative attitude which is concerning as they were exposed at a tender age. Students consuming tobacco daily were 15(36.6%). These findings show the lacunae in implementation of antitobacco laws.

In this study Students who have never thought of quitting tobacco were 26 (63.4%) which was similar to study by Tubachi AP et al (67.8%).¹⁶Withdrawal symptoms were present in 4.9% of students. Majority (56%) of students usually borrow their tobacco products, which shows the need for community based intervention.

In the current study proportion of tobacco consumption was statistically more in the age group of 14-16years, more in males (12.5%), more in students belonging to government school, higher among students in 10th standard and in students from joint family and it was not significant with father's education status, and socioeconomic status. Study by Hirani DM et al shows tobacco consumption was significantly more in males.¹⁰ Study by Vinita S et al shows use of tobacco was

significantly associated with category of school, location of school, class the subject is in, gender, father's occupation, father's education, number of friends but not by the type of family or religion.¹³

Limitation: Study was done in school setting, hence children who are not going to school were not studied, who may have higher exposure to tobacco products.

CONCLUSIONS

Prevalence of tobacco consumption in high school children in current study was 7.7%. Students have good knowledge on both smoking and non-smoking forms of tobacco. Family and school (30.3%) are having very little role as source of antitobacco messages in contrast 10.5%, 7.5% and 3.8% were influenced to consume tobacco by parents/ guardians, friends/ siblings and role model respectively. Most common reasons for starting tobacco consumption were out of curiosity and fun with friends. Many students never thought of quitting tobacco (26/63.4%) inspite of good knowledge on health hazards of tobacco consumption. Proportion of tobacco consumption was statistically more in the age group of 14-16years, males (12.5%), in students belonging to government school, 10th standard and in students from joint family.

Recommendation

Sensitization of community and school children (by

including in school curriculum) on anti tobacco laws needs to be strengthened.

REFERENCES

1. WHO report on the global tobacco epidemic, 2017: monitoring tobacco use and prevention policies. Geneva: World Health Organization; 2017. Licence: CC BY-NC-SA 3.0 IGO. Available from : <https://apps.who.int/iris/handle/10665/255874>. Last accessed on august 1st 2021
2. Sinha DN, Palipudi KM, Gupta PC, Singhal S, Ramasundarahettige C, Jha P, et al. Smokeless tobacco use: a meta-analysis of risk and attributable mortality estimates for India. *Indian Journal of Cancer*. 2014;51(Suppl 1):S73–S77.
3. Gupta PC. Mouth cancer in India: a new epidemic? *Journal of Indian Medical Association*. 1999 ;97:370–373.
4. WHO. Fact Sheet on Tuberculosis and Tobacco[Internet]. World Health Organization; 2009 [cited 2017November1]. Available from: http://www.who.int/tobacco/resources/publications/fact_sheet_set09/en/. Last accessed on august 1st 2021
5. Sagarkar AR, Hiremath SS, Yashoda R. Assessment of tobacco use among dental students in Bengaluru city, Karnataka. *J Indian Assoc Public Health Dent*. 2011;9:440–446.
6. Tata Institute of Social Sciences (TISS), Mumbai and Ministry of Health and Family Welfare, Government of India. Global Adult Tobacco Survey GATS 2 India 2016-17. Available at <https://www.tiss.edu/view/11/research-projects/global-adult-tobacco-survey-round-2-for-india-2016/>. Last accessed on august 1st 2021
7. International Institute Of Population Sciences (IIPS), Mumbai and Ministry of Health and Family Welfare, Government of India. Global Youth Tobacco Survey GYTS 4 India 2019. Available at https://ntcp.nhp.gov.in/assets/document/National_Fact_Sheet_of_fourth_round_of_Global_Youth_Tobacco_Survey_GYTS-4.pdf. Last accessed on august 1st 2021
8. Chadda R, Sengupta S. Tobacco use by Indian adolescents. *Tob Induc Dis* 2002;1:1-9.
9. Singh S, Vijayakumar N, Priyadarshini HR, Jain M. Tobacco use among high school children in Bangalore, India: A study of knowledge, attitude and practice. *Indian J Cancer* 2015;52:690-3.
10. Hirani DR, Balaramanamma DV. A study on prevalence of tobacco consumption among school students studying from fifth to eighth standards and assessment of their risk behavior by studying their knowledge, attitude, and practices regarding tobacco consumption in Ahmedabad city, Gujarat, India. *Int J Med Sci Public Health* 2016;5:191-197.
11. Raina R, Krishna M, Murali R, Shamala A, Yalamalli M, Kumar AV. Knowledge, attitude and behavioral determinants of tobacco use among 13-15 year old school children. *J Int Soc Prev Community Dent*. 2015 ;5:321-6.
12. Monark J. Vyas , Amul B. Patel. A KAP study on tobacco use among school children of Ahmadabad. *84 Int J Res Med*. 2016; 5:84-87.
13. Vinita Singh, Hem Raj Pal, Manju Mehta1 , S.N. Dwivedi2 and Umesh Kapil. Pattern of Tobacco Use Among School Children in National Capital Territory (NCT). *Indian J Pediatr* 2007; 74: 1013-1020
14. George RM, Thomas T. Perceptions and Practice of Tobacco Use among Adolescents of Mangalore City. *J Indian Assoc Public Health Dent* 2018;16:242-5.
15. Multani S, Reddy JJ, Bhat N, Sharma A. Assessment of Knowledge, Attitude, Behaviour and Interpersonal Factors Related to the Use of Tobacco among Youth of Udaipur City, Rajasthan, India: A Cross-Sectional Study. *Addict Health*. 2012 Summer-Autumn;4:142-50.
16. Tubachi AP, Sotala M, Reddy SCK, Paunekar S. Assessment of prevalence and knowledge, attitude and practice regarding tobacco consumption among adolescents in rural field practice area of medical college in Telangana, India: a crosssectional study. *Int J Community Med Public Health* 2018;5:1895-8

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