Original Article

PREVALENCE, RISK FACTORS, ATTITUDE TOWARDS TOBACCO USE AND KNOWLEDGE ON HAZARDS AMONG ADOLESCENTS IN KARNATAKA, INDIA

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ABSTRACT:

Background: Tobacco consumption remains the single largest leading cause of preventable deaths & diseases. Tobacco consumption is a major risk factor for more than 25 diseases like coronary heart diseases, carcinomas, Bronchitis etc, and also causes economic & social deterioration[1]. Adolescents are the most vulnerable population to initiate tobacco use. It is important to understand various factors that influence and encourage young teenagers to start smoking or to use other tobacco products.

Objectives: To know the prevalence, initiating factors, behavioural patterns and determinants of tobacco use. **Materials and Methods**: A cross sectional study, data collected by personal interview of all 1536 adolescents (10-19 yrs age group).

Results: The prevalence of tobacco use was 11.13% (171 out of 1536 subjects). In males 20.41% and in females it is 0.42%. The prevalence increased 14.81% from the age group 14 – 15 years to 68.42% among the age group of 18 – 19 years. The prevalence was 51.61% in illiterates compared to 7.58% in literates. Prevalence is high among illiterate parents (8.87%) as compared to those parents who had education. The main reason for starting tobacco use was influence of their parents and relatives (50.29%), followed by friends (45.03%), Show off (36.84%), curiosity (32.75%), movies (31.58%) and advertisements (5.26%). **Conclusion**: The prevalence of tobacco use among adolescents was 11.13%. Majority of the adolescents (48.5%) started using tobacco 13 years onwards. The major initiating factor for tobacco use was parents and relatives (50.29%). Majority of the subjects (51.69%) were aware of hazards of tobacco.

KEY WORDS: Prevalence, tobacco use, adolescents, urban area.

INTRODUCTION

Each year, tobacco products kill nearly 3 million people worldwide and this number is increasing. WHO estimates that, unless current smoking patterns are reversed, by the decade 2020-2030 tobacco will be responsible for 10 million deaths per year[1-3], 70% of them occurring in developing countries. Scientific evidence has been accumulating since early 1050's and more than 25 diseases are now known or strongly suspected to be causally related to smoking.[4]

Presently tobacco contributes to 4 million deaths per year globally. A recent study by WHO has cautioned that unless smoking patterns change, one billion people are expected to die from

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smoking habit in the 21st century which is ten times more than those killed in tobacco throughout the 20th century[1].

In India, deaths attributing to tobacco are expected to rise from 1.4% of all deaths in 1990 to 13.3% in 2020. Tobacco kills between 8-9 lakh people each year in India. These will multiple many folds in the next 20 years.1 Today of the 1.1 billion people who smoke world-wide, 182 million (16.6%) live in India. Tobacco consumption continues to grow in India at 2-3% per annum[5] Only about 20% of the total tobacco consumed in India are in the form of Cigarettes. About 40% are in the form of Bidis and the remaining 40% are consumed as chewing tobacco, Pan masala, snuff, hookly, chutta, dhumti and other tobacco mixtures featuring ingredients such as Areca nut.[6]

Thus a need was felt to carry out the present study to know the prevalence of tobacco use, to evaluate the initiating factors, to study behavioural patterns and determinants of tobacco use among adolescents of Kurugod, a Field practice area of Vijayanagara Institute of Medical Sciences, Bellary

MATERIAL AND METHODS

The present study was a cross sectional study. The study was conducted in Kurugod, a Field practice area of Vijayanagara Institute of Medical Sciences, Bellary, for a period of one year. During which house-to-house visit was done and all the 1536 adolescents (10-19 yrs age group)3 were interviewed. A detailed questionnaire was prepared and was pre-tested and validated during the pilot study. It consisted of three sections. Section one included information on socio-demographic variables. Section two contained information on tobacco use. Section three assessed the knowledge regarding hazards of tobacco. Statistical analysis: description of the data is shown by number and percentage. Categorical data analysis is carried out by chi-square and Z-test for differences of proportions.

Table- I Demographic characteristics of adolescents (n=1536)

Gender		**Religion**	
Males	823 (53.58)	Hindu	1253 (81.58)
Females	713 (46.42)	Muslim	235 (15.29)
		Jain	41 (2.67)
		Christian	7 (0.46)
Educational status		**Educational status of parents**	
Illiterate	124 (8.07)	Illiterate	981 (41.99)
Primary	691 (44.99)	Primary	796 (33.99)
High school	385 (25.07)	High school	351 (15.03)
College	336 (21.87)	College	210 (8.99)
Type of family:		**Socio – economic class**	
Nuclear	524 (34.11)	**I**	159 (10.35)
Joint	408 (26.56)	**II**	537 (34.96)
3 Generation	542 (35.29)	**III**	466 (30.34)
Broken	62 (4.04)	**IV**	313 (20.38)
		V	61 (3.97)

Table-II Distribution of Children Using Tobacco In Association To Various Factors

Sl No	Variables		No (%)
1	Education	Illiterate	64 (37.43)
		Literate	107 (62.57)
2	Per capita income	I	69 (40.35)
		II	43 (25.15)
		III	29 (16.96)
		IV	18 (10.53)
		V	12 (7.02)
3	Education of parents	Illiterate	88 (51.46)
		Literate	83 (48.54)
4	Occupation/ self employment	Working	116 (67.84)
		Non working	55 (32.16)
5	Type of family	Nuclear	45 (26.32)
		Others	126 (73.68)

RESULTS

A total of 1536 subjects were interviewed. The findings are being presented in this study according to demographic characteristics of adolescents, Information on tobacco use and Knowledge regarding hazards of tobacco.

In the present study the minimum age of adolescents was 10 and maximum was 19 years. Out of 1536 adolescents 823(53.58 %) are males and 713(46.42%) were females. The highest number (13.87%) of observations was found in 10-11 age group and least (8.66%) in 18-19 age group and it was almost similar in other age groups.

In the present study the overall prevalence is 171 (11.13%). In males it was168 (20.41%) and in females 3 (0.42%). This difference in prevalence of Tobacco use between males and females was statistically significant (P=0.000000, Z=12.42).

Among 168 male tobacco users, the prevalence of tobacco use increase with the age (< 14 yrs- 0.95% and 18-19 yrs- 68.42%). It shows statistical significance (P=0.000000) for trends. Among the ever users the prevalence of tobacco use was very high (51.61%) in illiterates than in literates. This shows the association between literacy status and prevalence of tobacco use (P= 0.000000 and Z= 14.95).

The prevalence is very high (43.40%) in children who belong to B.G Prasad class I as compared to other classes exception being in class V (19.67%). It shows gradual decrease in use of tobacco in lower classes and there is association between socioeconomic status and prevalence of tobacco use (P=0.000000, X2=197.606243 DF=4).

Among the 56 current users great majority belonged to 18-19 age group i.e. 26(46.42%). The prevalence of tobacco use is less in earlier age group and increases with older age group. Also it showed that majority of the subjects use smokeless tobacco (gutkha) 27 (48.21%) followed

by cigarette 15 (26.79%) and bidi 14 (25.00%). In the present study, among current users majority of them 31 (55.36%) uses only one Bidi / Cigarette / Gutkha per day. 15 (26.79%) of them uses 1-5 per day and 10 (17.86%) uses > 5 per day. It shows there is no much difference between pattern of use of bidies and Cigarettes.

In the present study it shows that, the early age of onset was 10 years and great majority of adolescents started using tobacco from 13 years and onwards 83 (48.54%). Also it showed that majority of the subjects started with gutkha 75 (45.62%).

In the present study out of 56 current users during the time of interview, 33 (58.53%) wanted to quit the tobacco use were as 23 (41.07%) doesn't want to stop.

Table-III Reason for Starting Tobacco

Reason	No(%)
Parents & relatives	86 (50.29)
Fun	11 (6.43)
Friends	77 (45.03)
Curiosity	56 (32.75)
Boredom	12 (7.01)
Show-off	63 (36.84)
Advertisements	09 (5.26)
Movies	54 (31.58)

DISCUSSION

Tobacco use is socially accepted in many segments of Indian Society. Tobacco use in India is increasing but there are considerable changes in types and methods by which it is used.[4] The assessment of the prevalence of tobacco use among adolescents, evaluating the initiating factors, behavioural pattern and imparting of health education is the first step in developing a programme for prevention and control of Tobacco use. Keeping in view this fact and the lack of studies in this direction in South India, the present study was undertaken. Socio-demographic characterisation of study population evaluated that most of them were Hindus, the largest number of subjects were in the 10-11 years age group (13.87%), while with reference to socio-economic status, majority were belonging to class II of modified Prasad classification (34.96%). Amongst literacy status 4.49% had attended primary school and 35.29% were from 3-geneation family, while majority were engaged in unskilled job or works (59.85%). The overall prevalence of tobacco use was found to be 11.13% (171 out of 1536 subjects). In males 20.41% and in females it is 0.42%. A similar study conducted in Managlore, the prevalence of tobacco use among 17-24 yrs adults was 33.1% among males4, in Kinya the prevalence is 38.6% in males and 17.9% in females[7], and in US it was 61% among 12th grade students [8].

A significant association between Tobacco use and age in males was found in the present study (p=0.000000). The prevalence increased 14.81% from the age group 14 – 15 years to 68.42% among the age group of 18 – 19 years. Similar study conducted in Kuwait, shows that 19.5% (60) started using tobacco at the age of 10-14 yrs and the prevalence increased to 55.6% (188) at the age of 15019 yrs[9].

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Tobacco use was found to be significantly associated with socio-economic status. Prevalence being much higher among both the extreme socioeconomic classes of population i.e. class I (43.40%) and class V (19.67%) (p=0.000000).

A significant association between Tobacco and occupational status was found in the present study. The prevalence was high among working group (29.29%) compare to non-working group (4.82%) (p=0.000000).

No association between types of family and prevalence of tobacco use was found in the present study. The prevalence was 8.59% among those living in nuclear family compared to 12.45% among those living in joint, 3 generation, broken families (p=0.135128).

A significant association between prevalence of tobacco and educational status of their parents. Prevalence being very high among those parents who were illiterate (8.87%) as compared to those parents who had primary, high school and college level education (p=0.013318).

There was increase in prevalence of current users with the age. Prevalence was less in earlier age group and increases with the age group and majority of the subjects (48.21%) used smokeless tobacco (Gutkha).

It was found that among current users majority of the (55.36%) of them 1 – 5 per day and 17.86% users >5 per day. It shows there is no much difference between usage of Gutkha, Beedi and Cigarette.

In the present study it was found that majority of the adolescent (48.54%) started using tobacco from 13 years onwards compare to 80% of smokers started smoking between 10-14 yrs[10]. Amongst parents the history of tobacco use was more in father (69.97%) and less in mothers (9.97).

The reason for starting tobacco use in majority of ever users was influence of their parents and relatives (50.29%), followed by friends (45.03%), Show off (36.84%), curiosity (32.75%) boredom (7.01%) and fun (6.43%). The study also revealed that the movies (31.58%) and advertisements (5.26%) were other influencing factors for starting tobacco. A similar study conducted in Mangalore reveals that 77.3% are influenced by TV and advertisement, 13.6% by parents or brothers, 47.7% by easy availability of cigarette and 34% were influenced by friends4. in Rajasthan 22% for sake of fun, 13% influenced by friends,3% curiosity, 2% to look impressive[10].

Assessment of knowledge regarding hazards of tobacco use revealed that majority of the adolescent (51.69%) were aware of hazards of tobacco. But among males and females there in no difference in knowledge, that tobacco is injurious to health (p=0.147729).

Among the adolescent those who were aware of hazards of tobacco, majority of subject (78.84%) said that it causes cough and breathlessness, 39.17% said cancer. (29.97%) of study subjects opined that it causes diseases related to heart and (20.28%) of the subject said it can other diseases. Majority of the subjects (58.14%) knew that passive smoking in injurious to health.

Regarding the source of knowledge majority of the subject (80.45%) got the information from the school teachers compared to parents and relatives (50.88%) media (20.65%), warning (22.92%) and Health personnel (6.93%).

It was found that in our study, majority of the current users (58.53%) wanted to quit the tobacco compare to 68.2% of smokers in Managalore wish to quit smoking[4]

Table-IV Knowledge on Hazards of Tobacco (n=1536)

Sl No	Variables		Male No (%)	Female No (%)
1	Is tobacco injurious to health?	Yes	411 (49.94)	383 (53.72)
		NO	219 (26.61)	191 (26.79)
		Don't know	193 (23.45)	139 (19.49)
2	Diseases caused by tobacco:	Cough & breathlessness	328 (79.81)	298 (77.81)
		Cancer	164 (39.90)	147 (38.38)
		Heart diseases	131 (31.87)	107 (27.94)
		Others	89 (21.65)	72 (18.79)
3	Is passive smoking injurious to health?	Yes	477 (57.96)	416 (58.35)
		NO	189 (22.96)	149 (20.90)
		Don't know	157 (19.08)	148 (20.75)
4	Source of knowledge	Parents & Relatives	205 (49.88)	199 (51.96)
		Teacher	321 (78.10)	318 (83.03)
		Media	88 (21.4)	76 (19.84)
		Health personnel	28 (6.81)	27 (7.05)
		Warning on packets	98 (23.84)	84 (21.93)

REFERENCES

1. Shrinath Reddy K, Monica Arora. A case for Banning Tobacco. Health for Millions 2001, March-April; 27(2): 7-10.
2. Chadda RK, Sengupta SN. Tobacco use by Indian adolescents. Tobacco induced diseases 2002; 1(2): 111-119.
3. Programming for Adolescents Health and Development. TR Series-886. World Health Organisation, Geneva; 1999.
4. Sajjan BS, Chacko J, Asha K. Smoking behaviour among Arts student of a college in Mangalore, Dakshina Kannada. Indian Journal of Medical Science 2003, July; 57(7):290-94.

5. Riti Shimkhada and John W. Peabody. Tobacco control in India. Bulletin of the World Health Organization 2003; 81(1): 48-52.
6. Tobacco or Health: A global status report. Geneva : WHO; 1997.
7. Kwamanga DH, Odhiambo JA, Amukoye EI. Prevalence and risk factors of smoking among secondary school students in Nairobi. East African Medicine Journal 2003; 4:207-12.
8. Johnston LD, O'Malley PM, Bachman JG. Cigarette smoking among American teens declines sharply in 2001. Ann Arbor MI: University of Michigan News and Information Services. url :www.monitoringthefuture.org. Accessed May 15, 2002.
9. Anjum Memon, Philip MM, Thattaruparambil NS, Nijwael G, Mahmoud al-Bustan, Almed al-Shatti et al. Epidemiology of smoking among Kuwaiti adults: Prevalence, characteristics, and attitudes. Bulletin of World Health Organization 2000; 78(11):1306-14.
10. Singhi S, Broca JS, Mathur GM. Smoking behaviour of Rural School Boys. Indian Pediatrics 1987 Aug; 24:655-59.

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