



A Cross Sectional Study to Determine the Prevalence of Tobacco Consumption Among School Going Adolescent Boys in Rural Area of Maharashtra.

KEYWORDS

Tobacco consumption, Rural area, Adolescent boys

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ABSTRACT *Background:* Tobacco abuse is one of the biggest curses that modern society has come across. It is not confined to any one country or region alone, but has widely afflicted the globe. *Objectives:* 1. To study the prevalence of tobacco consumption in school going adolescent boys in rural area .2. To determine the epidemiological factors influencing tobacco consumption behavior in adolescent boys. 3. To find out pattern of tobacco consumption in adolescent boys of rural area. *Setting & Design:* Community based cross-sectional study. The study was carried out for 3 months in the rural area of Thane district of Maharashtra. *Methods & Materials:* Data was collected through pretested semi-structured self-administered questionnaire given to students by the investigators. Data collected were analyzed using statistical package for social sciences (SPSS) 17.0 software. *Results & Conclusions:* The number of subjects was slightly higher in 14 -16 of the age-groups compared to other age group. Prevalence of use of smokeless form of tobacco was more (11.6%) as compared to smoke form of tobacco (4.6%). Prevalence of tobacco use was 16.2 %.

Introduction:

Of the various drugs abused, the most widely distributed and commonly used drug in the world is 'Tobacco'. Many social, economic and political factors have contributed to the global spread of tobacco consumption. The fast changing social milieu, social sanctions and other factors are mainly contributing to this proliferation and has posed serious challenge to individuals, families, societies and nations. Tobacco use is a major worldwide public health problem. Tobacco use is one of the chief preventable causes of death & illness in the world. Tobacco is estimated to have killed 100 million people in the 20th century & continues to kill 5.4 million people every year and this figure is expected to rise to 8 million per year by 2030, 80% of which will occur in the developing country. It has been estimated that an average of 5.5 minutes of life is lost for each cigarette smoke. There is growing recognition that because of a combination of biological, psychological and social factors, adolescents face many challenges and health risks such as unprotected sex, substance abuse, accidents and violence. The health of adolescents is profoundly associated with their behaviour and development process. Healthy development of adolescents depends upon several complex factors: their socio-economic circumstances; the environment in which they live and grow; the quality of their family, community and peer relationships; and available opportunities for education and access to health information and services. The young people of today are tomorrow's adults. The behaviour of adolescents is a potential determining factor for characteristics and behaviour of our adults in the future. It is of paramount importance that an environment be created and adequate support provided to enable adolescents to develop to their full potential and enjoy a healthy and responsible adulthood.

"The tobacco epidemic is an epidemic like no other. It is impossible to blame a biological pathogen – a virus, bacillus or bacterium. And neither ignorance nor the surprise effect provides an explanation. The epidemic, or more correctly pandemic, is sustained only by the search for financial gain" says Dr. Hiroshi Nakajima, Former Director General, WHO.

Aim & Objectives

1. To study the prevalence of tobacco consumption in school going adolescent boys in rural area.
2. To determine the epidemiological factors influencing tobacco consumption behavior in adolescent boys.
3. To find out pattern of tobacco consumption in adolescent boys of rural area.

Material & Methodology:

1. It is a cross sectional study conducted among adolescents boys (8th, 9th, and 10th standard students) of school in rural area of Thane district of Maharashtra. Universal sampling technique was used & 173 students were included in the study. Permission was taken from the Principle/Headmaster of school and also from class teacher to include students in the study. Approval for conduction of study was taken from ethical committee of the medical college.
2. Pre validated semi-structured questionnaire was prepared according to the objectives of study.
3. Study subject were identified as per exclusion and inclusion criteria.
4. The anonymous self-administered questionnaire was distributed to the students of selected classes after explaining the purpose of the study and the instructions to fill in the questionnaire. Considering the sen

sitivity of the issue, the school authority was request ed not to be present in the class during the filling in of the questionnaire.

5. One-class period (approx. 45 min) was provided to fill in the questionnaire. Students were assured that the information they provided would remain confidential and thus were encouraged to be truthful in their responses. They were informed that their participation was completely voluntary and they could quit at any time.
6. Data collected were analyzed using statistical package for social sciences (SPSS) 17.0 software.

Results:

Table 1:Distribution of study subjects according to their age.

Age	Frequency	Percentage %
13	11	6.4
14	34	19.7
15	59	34.1
16	44	25.4
17	21	12.1
18	4	2.3
Total	173	100

In the present study it was observed that most of the study participants were of age 14-17 years.

Table 2: Distribution of study subjects as per amount of weekly pocket money given to them.

Pocket Money(weekly)Rs	Frequency	Percentage %
0-20	58	33.5
21-50	94	54.3
51-100	20	11.6
>100	1	2.2
Total	173	100

The present study showed that majority of study participant got INR 21-50 (54%) as weekly pocket money followed by INR upto 20 per week (33 .5%).

Table 3:Prevalence of never use and ever use of tobacco among the study subjects.

Tobacco Use	Frequency	Percentage %
Ever Use	28	16.2
Never Use	145	83.8
Total	173	100

In the present study, over all ever use prevalence of tobacco use was 16.2% and never use was 83.8%.

Table 4:Prevalence of tobacco use among the study subjects according to type of tobacco consumed.

Type Of Tobacco		Frequency	Percentage %
Smoking	Cigarette	3	1.7
	Bidi	5	2.9
Smokeless	Khaini	6	3.5
	Gutkha,	11	6.4
	Other(Masher)	3	1.7
Not consuming any form of tobacco		145	83.8
Total		173	100

Smoking verses smokeless ,Chi-square X2 – 0.2324 Sig.P- 0.629

Overall, smokeless tobacco use (11.6%) was higher than smoking type (4.6%). The difference in tobacco use by type was not significant.

Table 5: Prevalence of Current tobacco user according to frequency of Tobacco Use.

Frequency of Tobacco use	Frequency	Percentage %
Regular	12	6.9
Occasional	8	4.6
Past	3	1.7
Experimental	5	2.9
Never user	145	83.8
Total	173	100

In the present study it was observed that among users, 12 (6.9%) were regular users and 8 (4.6%) were occasional users. 3(1.7%) were past user and 5(2.9) were experimental user.

Table 6: Distribution of study subjects as per the tobacco consumption habit of their parents.

Parents tobacco Habit		Frequency	Percentage %
(Father)	Yes	101	58.4
	No	72	41.6
Total		173	100
(Mother)	Yes	32	18.5
	No	141	81.5
Total		173	100
(Both parents)	Yes	25	14.5
	No	148	85.5
Total		173	100

In the present study it was observed that fathersof study participants consuming tobacco were 101 (58.4%). Mothers of study subject consuming tobacco were 32 (18.5 %)

Table 7: Distribution of tobacco user students according to source of tobacco.

Source of tobacco	Frequency	Percentage %
Buy myself at store	13	46.4
Friends/someone else gives them to me	9	32.1
Take them from my mother, fatheror siblings	6	21.5
Total	28	100

It was observed in the present study that most of the study subjects bought tobacco themselves i.e 13 (46.4 %) followed by 9 (32.1 %) got tobacco from friends/someone else.

Table 8: Prevalence of tobacco use among male students according to health education given in school about hazards of tobacco.

Health education in School about the hazards Of tobacco	Tobacco use			
	User		Non User	
	Fre- quency	Percent- age	Fre- quency	Percent- age
Yes	11	39.3	99	68.3
No	17	60.7	46	31.7
Total	28	100	145	100

Chi square X2 – 8.518d f - 1 p - 0.004

From the above table it is seen that out of 173 study subject 110 said that hazards of tobacco was taught in school. This difference in tobacco use in study subjects as per health education about hazards of tobacco taught in school was significant.

Discussion

Table 1 shows that the mean age was as young as 15 year (S.D \pm 1) and most of the adolescent boys were in the age group of 14-17 years. PreetiSoni,Raut DK, 2013,observed observed in their study that the age of the respondents ranged from 14 to 18 years (71%)

Table 3 shows that ever user prevalence of tobacco use was 16.2 % and never user was 83.8 %. As per NFHS 3 national survey found that the 28.6% of adolescents aged 15-19 years were using any kind of tobacco was higher than present study. Study carried out by T L Ravishankar, Ramesh Nagarajappa,2007,found that 19.4% of the boysused to consume tobacco, this study finding was almost similar to present study.

Table 4 shows that smokeless tobacco use (11.6%) was higher than smoking type (4.6%).As per IndiaGYTS was a school-based survey of studentsin 2009 shows that 4.4% boys in school smoke cigarettes. Only 4% smoked tobacco in the form of beedi/cigarette in study conducted by Dongre AR, Deshmukh PR, Murali N, Garg BS Dr. Sushila Nayar ,2008, and found higher prevalence smokeless tobacco than our study but smoking type had similar finding.

Table 5 shows that in the present study among tobacco users, 12 (6.9%) were regular users and 8 (4.6%) occasional users. 3(1.7%) were past user and 5(2.9) were experimental user.Study carried out by Preeti Soni, Raut DK2,2013 showed that 49% students wereregular user of tobacco in any form, 32% experimented tobacco onceor more in their lifetime but did not consume it regularly and only18% had never used tobacco in any form.

From the table 35 it is seen that out of 173 study subject 110 said that hazards of tobacco was taught in school. Only 63 participants said hazards of tobacco were not taught in school. 11(39.3%) user said that hazards of tobacco was taught in school.Finding of this study was similar to the study carried out by GYTS 2009, which reported that the63.3% students had been taught in class, during the past year, about the dangers of smoking.

Conclusion

The number of subjects was slightly higher in 14 -16 of the age-groups compared to other age group. Prevalence of tobacco use was (16.2%). The present study showed that majority of study participant got INR 21-50 (54%) as weekly pocket money followed by INR upto 20 per week (33.5%). Overall, smokeless tobacco use (11.6%) was higher than smoking type (4.6%). The difference in tobacco use by type was not significant. In the present study it was observed that among users, 12 (6.9%) were regular users and 8 (4.6%) were occasional users. 3(1.7%) were past user and 5(2.9) were experimental user.In the present study it was observed that fathers of study participants consuming tobacco were 101 (58.4%). Mothers of study subject consuming tobacco were 32 (18.5 %) It was observed in the present study that most of the study subjects bought tobacco themselves i.e 13(46.4 %) followed by 9(32.1 %) got tobacco from friends/someone else.

Recommendations

Keeping in mind the magnitude of the tobacco problem the following recommendations are suggested to tackle the multifaceted problem of tobacco mortality and morbidity. Peer group and parental history of tobacco use influences tobacco use among school students hence this indicates that tobacco prevention interven-

tion should essentially begin with the family.In all parents teachers meeting the consequences of tobacco use be explained to the parents with specially reference to influences of their tobacco use on their children.Teacher should undergo training to recognised symptoms of tobacco addiction among the students and subsequent management and the referral system for counselling of school students indulging in tobacco use establishing to nearest health centre of school, alternatively trained psychologist may be hired for monthly counselling services with reference to tobacco use.Smoking and tobacco use be prohibited within the school premises and appropriate penalty be recommended for indiscipline, if possible unauthorised vendor selling tobacco in any form be prevented from trading outside the premises through competent authority.Mobilization of tobacco non-users in motivating adolescent students to prevent initiation and quitting tobacco use would help to create a supportive environment. Lessons on hazards of tobacco use should be included in educational curriculum at all levels.Assessment of tobacco use by students should be a part of regular school health check-up programme. School health clinic been established and tobacco cessation program should be introduce in it.Information, education and communication activities to raise the students awareness to address the problems arising out of lack of awareness.To involve the community, school, health institutions and Non-governmental organizations actively in tobacco control.Regulatory mechanism of COTPA (Cigarettes and Other tobacco products Act) should be stringent.

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