



Pattern of tobacco use among primary school teachers in Belgaum city, India – A Cross Sectional Study

Prashant Savadi¹, A S Wantamutte², Ashwini Narasannavar^{3*}

ABSTRACT

Introduction The consumption of tobacco related products by the school teachers is a bad habit because it sends a wrong signal to young minds of students. It is injurious to health and is a waste of money and also is a wrong role model for the students.

Objectives To find out the prevalence of pattern of tobacco use among primary school teachers in Belgaum city and to determine the factors influencing the use of tobacco among primary school teachers.

Methods A cross-sectional study was conducted using random sampling technique among 400 teachers aged 21 to 60 years from 78 primary schools in Belgaum city during March to December 2009.

Results Overall, prevalence of any form of tobacco use among primary school teachers was 14.50%. Only male teachers 46.03% used tobacco. 37.93% were using smoking type of tobacco, 46.56% used smokeless & 15.51% were using both types of tobacco products. Most of the users initiated tobacco use by 16 to 20 years of age. A substantial number of teachers initiated tobacco use for fun, imitation and peer pressure. 58.33% of the teachers were using tobacco due to dissatisfaction from profession, 37.50% due to family problems.

Conclusion High proportion of male teachers used tobacco than female teachers, because of social norm. Almost all the teachers consciously avoided tobacco use in school premises. Students will be encouraged to start using tobacco, if they observe use of tobacco products by teachers who are the role models for students. It was concluded that it would be beneficial to conduct educational programs and seminars encouraging tobacco cessation to this professional group, along with school children.

Keywords: Patterns, Tobacco use, Primary school teachers.

BACKGROUND

Tobacco use is a major preventable cause of premature death and diseases. Globally approximately 5.4 million people die each year due to diseases resulting from tobacco consumption¹. If current trends continue, there will be one death every 3 seconds by the year 2030 i.e. tobacco will be

responsible for 10 million deaths per year, by the decade 2020 to 2030, with 70% of them occurring in the developing countries.¹⁻³ and 80% premature deaths in developing countries.² The use of tobacco in day today life is affecting health of the people and has become common in adolescents. The estimation of factors responsible for the global burden of

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¹District Epidemiologist
Sindudurg, Maharashtra, India

²Prof and Head, Dept. of
Community Medicine
USM KLE international Medical
program
Belgaum, Karnataka, India.

³Lecturer, Dept. of Public Health
J N Medical College, KLE
University
Belgaum, Karnataka India

*Corresponding Author
Department of Public Health,
J N Medical College
KLE University, Belgaum, India
dr_ashwiniaa@yahoo.co.in

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disease, tobacco contributes to 6% of deaths worldwide followed by alcohol at 1.5%.⁴ Tobacco contains 4000 chemicals, out of which the most harmful are benzene, formaldehyde, ammonia, hydrogen, cyanide, cadmium, acetone and arsenic etc. The 3 main components of inhaled cigarette smoke are nicotine, carbon monoxide & tar which cause diseases due to nicotine absorption through blood stream increasing heart rate and blood pressure by releasing vaso-constrictive hormones.⁶ Similarly tar is carcinogenic and affects respiratory system.⁷

Consumption of tobacco leads to cancer, cardiac disease like heart attack, arteriosclerosis, and respiratory disease, like TB, chronic bronchitis and emphysema and other illness like impotence, peptic ulcer & adverse effects on fertility.⁸ Teachers have good knowledge about the harmful effects of tobacco usage, but still due to various reasons they consume tobacco products. Teachers who have tobacco consumption habit will create a wrong role model for the students. School teachers and administrators have daily interaction with students. Thus, they can influence student regarding the ill effects of tobacco. Data collected by the Global School Personnel Survey (GSPS) between 2000 and 2008 have shown that an alarming proportion of school personnel smoke cigarettes and use other forms of tobacco. The scarcity of tobacco-free schools and the high level of smoking on school grounds by school personnel reported in the Global School Personnel Survey indicate that, how seriously school practices and staff actions undermine the educational messages. And the other preventive efforts to reduce the prevalence of smoking among children & adolescents will be of waste. Teachers can play a vital role in helping students not to consume as well as quit the habit since the amount of time spent with them is nearly 25000 hours. However most teachers are not adequately trained or do not have access to materials to support student prevention. School programs work best in conjunction with mass-media campaigns and community initiatives. More focus should be on strong tobacco-control legislation, such as the initiation of smoke-free areas, bans on advertising and promotion, and increase in tobacco tax.⁸

Hence, this study has been undertaken to find out the pattern of tobacco use & factors influencing use of tobacco among primary school teachers in Belgaum City and to suggest measures to prevent it.

OBJECTIVES

Primary: To find out the pattern of tobacco use among primary school teachers in Belgaum city.

Secondary: To determine the factors influencing use of tobacco among primary school teachers.

MATERIALS AND METHODS

Study Design and period: Community based Cross Sectional Study over a period of 10 months (March 2009-December 2009).

Sample size

The total population of primary school teachers in Belgaum city was 980. Among them 400 teachers were included.

$$n = \frac{4pq}{d^2}$$

Where n = sample size

p = prevalence of tobacco use.

q = 100 - p

d = error in estimation of p (5%)

So the sample size is **400**.

Study Procedures

Recruitment

400 teachers aged 21 to 60 years from 78 primary schools in Belgaum city were recruited by random sampling technique during March to December 2009.

Data Collection

The data were collected by interviewing the teachers with the help of pre-designed, pre-tested questionnaire. The following information were collected from the teachers regarding name, age, sex, job experience, regarding any habits, awareness and health hazards of tobacco consumption.

Ethical clearance

Was obtained from K.L.E ethical committee. Permission was taken from the school authority and informed consent from the participants.

Pilot study

A pilot study was conducted on 50 teachers before doing actual study to check for any lacunae either in the methodology or in the questionnaire.

Statistical Analysis

The data were analyzed by using Microsoft Excel spread sheet (version 2007), SPSS16.0 version. Analysis was conducted by percentages and frequency. Chi-Square test was used to determine significant differences and association of various parameters with pattern of tobacco use in primary school teachers.

RESULTS

All the teachers were between the age of 20-60 years. Mean age group was 38.59 years. 40.45% of teachers were of age between 31-40 years. 32% of teachers were males 68% females. Out of 400 teachers 58 teachers used tobacco. All these were males no single female teacher used tobacco. Among these tobacco users 46.6% teachers used smokeless type of tobacco, 37% smoking and 15.5% both combined. Smoking of tobacco was more in 21 to 40 years of age group (39.65%) (Table 1).

Table 1 Age wise distribution of tobacco users with type of tobacco product used

Type of tobacco product	21-30years	31-40years	41-50years	51-60years	Total
Smoking Filtered cig	8 (29.62%)	12 (44.44%)	5 (18.5%)	2 (07.40%)	27 (40.29%)
Non filtered cig	1 (33.33%)	2 (66.67%)	0 (0.00%)	0 (00.00%)	03 (4.47%)
Bidi	0 (00.00%)	0 (00.00%)	0 (0.00%)	1 (100%)	01 (1.49%)
Smokeless Plane tobacco & chuna	0 (00.00%)	0 (00.00%)	6 (100%)	0 (00.00%)	06 (8.95%)
Pan & tobacco	0 (00.00%)	0 (00.00%)	0 (0.00%)	1 (100%)	01 (01.49%)
Gutakha	2 (15.38%)	7 (53.84%)	4 (30.76%)	0 (00.00%)	13 (19.40%)
Khaini	1 (06.66%)	5 (33.33%)	9 (60.00%)	0 (00.00%)	15 (22.38%)
Tobacco & gutakha (both)	0 (00.00%)	0 (00.00%)	1 (100%)	0 (00.00%)	01 (1.49%)
Total	12	26	25	4	67 (100%)

*Multiple answers

Smokeless type of tobacco was more in 31to 50 years of age group (55.17%). Table 2 shows the pattern of tobacco use by the teachers.

Table 2 Distribution of respondents according to type of tobacco product used

Types of tobacco	N	Percentage
Smoking	22	37.93
Smokeless	27	46.56
Both	09	15.51
total	58	100

Most of them (75.12%) initiated the habit when they were of age 15 to 20 years old and reasons to start

using tobacco was for fun and imitating of actors, parents etc (Figure 1).

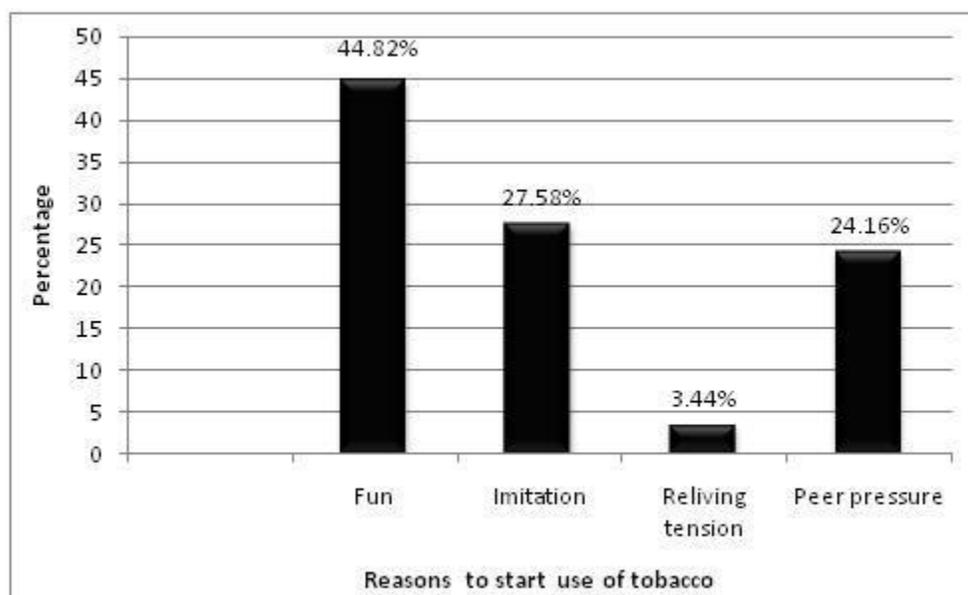


Figure 1 Reasons to start use of tobacco

84.48 % respondents attempted to quit tobacco use. Among them 59.18% could quit for 15 to 20 days and restarted again due to personal and family problems. The statistical significance was found with gender ($p=0.000$), family history of tobacco use ($p=0.002$)

DISCUSSION

Majority of countries of the world are in a state of tobacco epidemic, with larger population of tobacco users emerging day by day. Tobacco has been proven to be addictive & harmful to health in many ways. In India, various forms of smoke & smokeless tobacco are used by the people. Tobacco related lung diseases & cardiovascular diseases cause a significant proportion of morbidity & mortality.¹⁻³

The present study of primary school teachers of Belgaum city revealed that; the prevalence of tobacco use was high in male teachers. The overall prevalence of tobacco use was (14.5%). This is very low as compared to the findings of study in Bihar (78%) and Nepal (57.1%).^{3,30} The cause may be that Bihar & parts of Nepal are more backward and tobacco use may be part of their culture as compared to Karnataka. Our study revealed that, the use of tobacco has been observed in all age groups but the

prevalence was high among the school teachers in the age group of 30 to 50 years but statistically was not significant but significant with gender. Similar findings have been reported in a study done in Nepal.³ A study conducted among teachers in Lucknow showed similar findings about smoking habits.^{24, 26} In the present study smoking was practiced by 37.93% teachers & smokeless tobacco by 46.56% teachers. A study conducted in Orissa has reported that, current cigarette smoking; bidi smoking & smokeless tobacco use was (26.8%), (30.1%) & (38.8 %) in teachers respectively.²⁶ by this it is evident that the use of smokeless tobacco is more than smoking type of tobacco. 46.55% of primary school teachers used filtered cigarette, compared to non filtered cigarette, & bidi. In smokeless type of tobacco 25.86%, 22.41% respondents used khaini and gutkha respectively and very few used pan & tobacco, similar findings were reported in the study conducted at Mahottary district of Nepal that is 30% of teachers used filtered cigarette, 68.3% khaini, 22.5% gutakha³. Prevalence of smoking was high in the age group of 31 to 40 years of teachers. Similar finding was reported in a study conducted among the Rumanian teachers.⁴¹

In our study 75.88% of primary school teachers started use of tobacco at the age of 16 to 20 years & 20.68% at the age of 21 to 25 years. A study conducted at Mahottary district of Nepal reported that, most of tobacco users started tobacco use by 16 to 20 years of age.³ Another study reported that majority of school teachers began tobacco consumption at the age of 21 years & beyond.²⁷ Our study revealed that the reason to start tobacco use was for fun (44.82%), (27.58%) for imitation, (24.16%) due to peer pressure & (3.44%) for relieving tension. A study conducted in Nepal reported that; the reasons to start tobacco use were, fun (76.7%) & other is imitation & peer pressure.³ Another study reported reasons like curiosity (37.9%), social (22%), enjoyment (21.2%), to relieve pressure (8.17%) & to improve performance (5.8%).²⁷ Similar study done at Kelantan, Malaysia has reported that the peer influence was the major reason for smoking among smokers.³⁶ it was seen that only 8.62% of teachers used the tobacco products in the school premises, which is in contrast to a study conducted in Mahottary district of Nepal where 61.9% of the secondary school teachers used tobacco in the school premises which was higher than in primary school teachers (60.5%).³ Another study conducted in Kolkata reported that; more than four fifth teachers consciously avoided tobacco use in school premises.²⁷

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CONCLUSION

Teachers who had habit of tobacco consumption were young adults. Most of them used filtered cigarette gutakha and khaini. They started the tobacco use in adolescent age and for fun and imitation. The tobacco use was associated significantly with sex, history of tobacco use in the family, peer pressure etc. There is need to incorporate appropriate health educational topics in the school curriculum to prevent and reduce tobacco use among school teachers as well as students. To control tobacco use strict implementation of policies is required. Surprise visit to schools by authorities to detect tobacco use in the school campus and punish those who are found guilty, will help in reducing tobacco menace in school campus to some extent.

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CONTRIBUTORS

Prashant savadi conceptualized the research idea, designed the study, carried out the study and interpreted the results. Wantamutte AS revised the manuscript and finalized it. All the authors read and approved the final draft. Ashwini Narasannavar helped in data analysis and drafted the manuscript and guarantor of all authors.



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