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Prevalence of tobacco consumption in an urban area Belgaum, Karnataka, India

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ABSTRACT

Background: Tobacco use imposes a huge burden of disease in India and is a major global public health problem. There are over many diseases that are caused, increased or exacerbated by tobacco. In north Belgaum, farmers cultivate tobacco over large areas and many are into tobacco trade. So there is a need to obtain the information and assess the percentage consumption of tobacco use so that further steps to reduce the prevalence can be carried out. The main objective was to know the prevalence of tobacco consumption in an urban area of Belgaum, India.

Methods: This descriptive cross-sectional study was done in Khasbag area, Belgaum district which is urban field practice area of Belgaum Institute of Medical Sciences over a period of six months from July to December 2011. The sample size was calculated to be 238 and subjects were interviewed from different anganwadis of all the wards of UHTC. Anganwadis were chosen randomly and data was collected by doing systematic sampling.

Results: The prevalence of ever use of tobacco was found to be 37.97% in men and 12.5% in women. During the study the number of people consuming tobacco was 28.57%. The significant finding observed was that 77.94% of people consuming tobacco, were using smokeless form.

Conclusions: The prevalence of tobacco consumption was higher in males than females and smokeless form was the most commonly used form.

Keywords: Tobacco, Tobacco consumption, Prevalence of tobacco

INTRODUCTION

Tobacco use imposes a huge burden of disease in India and is a major global public health problem. The World Health Organization estimates that 4.9 million deaths (8.8%) and 59.1 million disability-adjusted life years (4.1%) are attributable to tobacco every year. ¹

According to Global Adult Tobacco Survey (GATS), more than $1/3^{rd}$ of the adults were current users were tobacco in any form.² Worldwide, about one-fifth of all

deaths attributed to tobacco occur in India, i.e. more than 8,00,000 people die and 12 million become ill as a result of tobacco use every year, while tobacco contribute to 56.4% cancers in men and 44.9% in women. India is the second largest consumer of tobacco in the world, after China.

In 2004, direct healthcare costs attributable to tobacco reached 1.2 billion USD, 4.7% of India's total national healthcare expenditure.⁵ In India, smoking is the most popular form of tobacco usage, followed by chewing.¹

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The study focuses on effects of different forms of tobacco consumption viz., smokeless form which includes tobacco chewing, gutkha, snuff, khaini and smoke form which includes beedi, cigarette, cigar, pipe, hand rolled tobacco smoking, hookah and water pipe smoking. In India, beedi smoking is the most popular form of tobacco smoking (48%), cigarette smoking is the second most popular form of tobacco smoking (14%) while tobacco chewing accounts for 38% of the total consumption.¹

Prevalence of tobacco use has increased significantly in the recent years. Changing life styles, increasing money availability, decreasing parental control, growing influence of Television, Films and such other factors have contributed to this trend. In Belgaum district, particularly north Belgaum farmers cultivate tobacco over large areas and are into tobacco trade. So there is a need to assess the prevalence of tobacco use so that further steps to reduce it can be taken.

METHODS

The present study was a cross sectional study conducted in Urban Health Training Centre of Department of Community Medicine, Belgaum Institute of Medical Sciences, Belgaum, Karnataka, India over a period of six months, between July to December 2011. Study Population included household members aged 15 years and above from urban area Khasbag of Belgaum. The study sample size was calculated to be 238, taking Prevalence from the study conducted by Dr. Kishore Chaudhry et al as 29.6%.

The sample of 238 people was selected from different anganawadi areas of all the wards of the UHTC. In urban area, anganwadi areas were chosen randomly and by doing systematic sampling the participants were selected for the study. The data was collected by conducting household surveys and socio-demographic profile was obtained by personal interview of all the participants. Informed consent was obtained from the participants and accent was obtained wherever necessary. Ethical clearance was obtained from the Institutional Ethics Committee.

Individuals above 15 years of age staying in the study area were included in the study. Individuals suffering from major mental disorder/mental retardation and those who stayed in Belgaum for less than 6 months were excluded from this study.

Smoking was defined according to the WHO classification. Never Smokers were adults who have never smoked a cigarette or who smoked fewer than 100 cigarettes in their entire lifetime. Former smokers were adults who have smoked at least 100 cigarettes in their lifetime, but say they currently do not smoke. Non smokers were defined as adults who currently do not smoke cigarettes, including both former smokers and never smokers. Current smokers were adults who have

smoked 100 cigarettes in their lifetime and currently smoke cigarettes every day (daily) or some days (nondaily).⁷

The descriptive data for prevalence estimates are presented as percentages. Chi square test was applied with the help of SPSS. Variables included prevalence of current smokers / ex-smokers / tobacco consumers, type of tobacco use and duration of tobacco use.

RESULTS

A total of 238 participants were interviewed. Table 1 shows distribution of study participants based on sociodemographic profile. Higher number of participants were above the age of 60 years (20.58%) followed by age group between 35-39 years (15.96%). Almost 2/3rd of the participants were males. Most of the subjects were literates (95.95%). Majority of the study participants were Hindus (95.38%).

Table 1: Distribution of study participants based on sociodemographic details.

Variable	Description	Number (%)
	Males	158 (66.38)
Gender	Females	80 (33.61)
	15-19 years	5 (2.1)
	20-29 years	21 (8.83)
	30-39 years	57 (23.94)
Age	40-49 years	60 (25.22)
	50-59 years	46 (19.33)
	>60 years	49 (20.58)
	Hindu	227 (95.37)
Religion	Muslim	11 (4.62)
	Class I	1 (0.42)
	Class II	28 (11.76)
Socio	Class III	103 (43.28)
economic	Class IV	92 (38.66)
status	Class V	14 (5.88)
	Illiterate	12 (5.04)
	Primary school	85 (35.72)
	Secondary school	49 (20.58)
Literacy	SSLC	42 (17.64)
	Pre university	26 (10.92)
	Graduation	21 (8.82)
	Post-graduation	3 (1.26)
	Joint	61 (28.16)
Type of family	Nuclear	171 (71.84)

^{*}Values in parenphesis indicate percentage.

Association between ever users and never users of tobacco with gender is given in Table 2. Male gender was found to be highly significant with ever use of tobacco (P<0.001). Table 3 shows association between gender and current use of tobacco. Among the male participants 36.70% were current users of tobacco.

Prevalence of tobacco use according to type of tobacco is depicted in Table 4. Among the current users of tobacco 77.94% were using smokeless forms. Table 5 shows the association between current use of tobacco with socioeconomic status of study participants according to Modified B.G. Prasad Classification.⁸

Table 2: Prevalence of overall never use and ever use of tobacco according to sex.

Gender	Never use	Ever use	Total
Male	98 (62.03%)	60 (37.97%)	158 (66.38%)
Female	70 (87.50%)	10 (12.50%)	80 (33.62%)
Total	168	70	238

 χ^2 =35.7; d.o.f=1; P<0.001.

Table 3: Prevalence of current users and non-users according to sex.

Gender	Current users	Non users	Total
Male	58 (36.70%)	100 (63.30%)	158 (66.38%)
Female	10 (12.50%)	70 (87.50%)	80 (33.62%)
Total	68	170	238

Table 4: Prevalence of tobacco use according to type of tobacco.

Type of tobacco	Prevalence for n = 238 (%)
Smoking	14 (20.58)
Smokeless	53 (77.94)
Mixed (>1 form)	1 (1.48%)
Total	68

^{*}Values in parenphesis indicate percentage.

Table 5: Prevalence of current tobacco users by socioeconomic class.

Socioeconomic Class	Current users (%)	Non users (%)	Total
I	00	01	1
	(0%)	(100%)	(0.42%)
II	03	25	28
	(10.71%)	(89.29%)	(11.76%)
III	37	66	103
	(35.92%)	(64.08%)	(43.27%)
IV	25	67	92
	(27.17%)	(72.83%)	(38.66%)
V	03	11	14
	(21.42%)	(78.57%)	(5.88%)
Total	68	170	238

 χ 2= 79.94; d.f=4 P<0.001; *Values in parenphesis indicate percentage.

DISCUSSION

Through this study, an attempt has been made to look at some important aspects of tobacco use in the community. Tobacco use varies considerably from region to region within the country and there was lack of studies done

exclusively to provide the prevalence and patterns of tobacco use in this region. The present study noted an ever use prevalence of 29.4% and never use was 70.58%. This finding was very much similar to Global Adult Tobacco Survey (GATS) 2009-10 survey report according to which current use of tobacco in Karnataka was 28.2% ¹⁰. Ever use was higher in males 37.97% compared to females 12.5% which was expected looking at the higher prevalence of tobacco use among males in other studies.

Among 158 male participants, 58 were current users of tobacco which accounted for 36.70%. Similar observation was seen in GATS 2009-10 with current users of tobacco in males aged 15 years and above being 39.8% in Karnataka.

Subramanian et al, reported a higher tobacco use among Hindus and Muslims than among Christians. Similar observation was found in this study with higher prevalence of tobacco use observed among Hindus (28.63% of Hindus were using tobacco).

The present study concluded the prevalence of smokeless form to be 21.84%. Similar observation was seen in study done by Neelopant SA and Ashtagi GS in the same geographical area with prevalence being 29.79%. ¹¹

According to a study conducted by Saddichha S et al in young adults, the predominant form of tobacco use was cigarettes (78%) followed by smokeless form (22%). Contradictorily smokeless from (77.94%) was the predominant form in the present study. This may be because of the age distribution of the study participants in the present study in which the maximum were in the middle age group.

Tobacco use was inversely related to the level of education. Among the tobacco consumers, 92.64% of consumers were literate. However, education alone did not provide full protection against tobacco use as it was not significant in tobacco use even among those with higher education. The people with lower levels of education were nearly two times more at risk of using tobacco than persons with higher literacy level.

Based on occupation, household (51.47%) were the ones to have highest tobacco consumption followed by manual labourer (32.35%), whereas students (1.47%) were found to have the least consumption. Gupta PC et al, noted a higher risk of tobacco use among unskilled worker, male service workers and unemployed. High tobacco use among physical labour and unemployed may be because of associated stress and poverty.

Socio-economic status was an important determinant of tobacco use. The tobacco use showed significant inverse relation with SES class. The persons in lower SES classes were nearly two times more at risk of using tobacco compared to other class. Poor socioeconomic status

predisposes an individual for leading compromised life in term of education & living standards.

Awareness should be created about the health hazards occurring due to tobacco consumption. Non communicable disease (NCD) clinics setup under NPCDCS programme should try and inculcate tobacco cessation clinics and more awareness should be given about tobacco control in NCD camps. People using tobacco should be counseled and advised to quit their habit. Phase wise implementation of National Tobacco Control Programme should happen in all the districts. Vigorous anti-tobacco measures like advertisements, public rallies and camps should be carried out often to convince people about the harmful effects of tobacco.

CONCLUSION

The prevalence of tobacco consumption was higher in males than females and smokeless form was the most commonly used form. Statistically significant association was found between various sociodemographic characters i.e. age, sex, literacy, socioeconomic status and religion.

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