Original Article

Indian Journal of Preventive Medicine
Volume 3 Number 2, July - December 2015

Tobacco Use among Adults in a Rural Area of Coastal Karnataka

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Abstract

Introduction: Tobacco use can affect human health adversely and can lead to loss of productivity due to tobacco-related illnesses. It is a major cause of premature death across the world and in India. *Objectives:* **(**1) To determine the prevalence of tobacco use among adults in rural field practice area. (2) To study the knowledge and attitude regarding tobacco use. (3) To study the willingness to quit tobacco among its users. *Methods; Study design:* Cross sectional study. *Study area:* Rural field practice area of Department of Community Medicine. Kasturba Medical College, Manipal University, Manipal. A pretested semi-structured questionnaire was used to collect data from consenting adults during field visits. Tobacco usage status was categorised as per the WHO guidelines and the data was entered and analysed using Statistical Package for Social Sciences (SPSS) version 15.0(SPSS South Asia, Bangalore). Results are presented in frequencies and percentages. Chi-square test was applied to study association of factors with tobacco usage. *Results:* A total of 223 individuals were included in the study which comprised 139 (62.3%) males and 84 (37.7%) females. Of the surveyed population, 77(34.5%) were ever users of tobacco with 63(81.8%) being current users and 14 (19.2%) ex-users. Majority (89.7%) of the people were aware that tobacco use has harmful effects on health. Among current consumers, 47 (74.6%) of them were willing to quit tobacco. *Conclusion:* The study shows that inspite of having adequate knowledge regarding the ill-effects of tobacco use; the prevalence of its use is considerably high. Hence, there is a need to convert the knowledge into practice by behaviour change communication and provide timely support services like tobacco cessation clinics in the community.

Keywords: Tobacco Use; Knowledge; Attitude; Cessation; Rural Area.

Introduction

Tobacco use causes serious damage to human health and leads to high health-care costs. Productivity is lost due to tobacco-related illnesses. It is one of the major causes of premature death and disease across the world and in India [1].

India is the second largest producer of tobacco with it being widely used in variety of forms. The smokeless forms of tobacco are used mostly in developing countries, especially those in South East Asia compared to the western countries. In India, tobacco is smoked commonly as a cigarette, beedi or hookah.

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The smokeless forms of tobacco are chewed as raw tobacco leaves, khaini and gutka or inhaled as snuff [2].

Tobacco use is one of the preventable causes of death in the world. Globally, smoking attributes to about 71% of lung cancer, 42% of chronic respiratory diseases and 10% of cardiovascular diseases. It is responsible for 12% and 6% of deaths among males and females respectively [2]. Tobacco continues to kill 6 million people each year globally, including more than 600000 non-smokers who die due to passive smoking [3]. In India, with an increase of 2-3% of tobacco use per annum it is predicted to account for 13% of all deaths [4]. The chewing of tobacco products is a risk factor for oral cancers [5]. Moreover tobacco consumption was found to be higher among the lower socioeconomic groups, thus, further deteriorating their physical, mental, social and economic health [6].

In recent years tobacco control activities are considered as a priority in India and abroad. Therefore the present study was undertaken to estimate the prevalence of tobacco use among adults, to assess their knowledge and attitude regarding tobacco use and the willingness to quit tobacco among its users in the rural field practice area. This in turn would enable us to gain insight into this problem in order to strengthen the tobacco control activities in Coastal Karnataka.

Methodology

A cross sectional study was carried out among the population residing in the field practice area of the Department of Community Medicine, Kasturba Medical College, Manipal University, Manipal.

Sample size

As per the previous literature, anticipating the prevalence of tobacco use among general population to be 34.6 % [7] with 20% precision at 95% confidence limits the sample size was estimated to be 190. However, we could reach a sample of 223 individuals in the study area.

The study team interviewed all the consenting individuals above the age of 18 years during their visits to the houses, market places and fish processing factories. The eligible individuals were informed about the purpose of the visit. A pretested semi-structured questionnaire was administered to the individuals and the data such as their socio-demographic characteristics, knowledge regarding the different forms of tobacco products and their harmful effects were collected. Tobacco use among the participants and their attitude towards usage of tobacco products were also assessed. The socio-economic status of the study population was assessed using modified BG Prasad Classification [8]. The tobacco products included both smoke and smokeless forms comprising beedis, cigarettes, gutkha, khaini, zarda, snuff and chewable tobacco.

The tobacco usage status was categorised as follows [9]:

(a) Smoking tobacco consumption:

- *Non-smoker:* Who had never smoked in his / her life.
- *Current smoker:* Who smokes daily or occasionally in the current year.
- *Ex-smoker:* Who has quit smoking for more than one year.

(b) Smokeless tobacco consumption:

- *Non-users:* Who has never used any form of smokeless tobacco in their life.
- *Current users:* Consuming smokeless tobacco daily or occasionally in the current year.
- *Ex-user:* Who has quit use of smokeless tobacco for more than one year.

Data was entered and analysed using Statistical Package for Social Sciences (SPSS) version 15.0(SPSS South Asia, Bangalore). Results are presented in frequencies and percentages. Chi-square test was applied to study association of factors with tobacco usage.

Results

A total of 223 individuals were included in the study which comprised 139 (62.3%) males and 84 (37.7%) females. About 34.5% of the surveyed population belonged to the age group of 30-44 years followed by 18-29 years (31.8%), 45-59 years (22.0%) and above 60years (11.7%) as depicted in Table 1.

Table 1: Socio-demographic characteristics of study population **N=223**

Characteristic		Number	Percentage
Gender	Male	139	62.3
	Female	84	37.7
Age group (years)	18-29	71	31.8
	30-44	77	34.5
	45-59	49	22.0
	≥ 60	26	11.7
Religion	Hindu	192	86.1
	Christian	22	9.9
	Muslim	09	4.0
Marital Status	Single	83	37.2
	Married	135	60.5
	Widow	05	2.2
Socio-economic status	Low	66	29.6
	Middle	149	66.8
	High	08	3.6
Educational Status	Illiterate	12	5.4
	Primary	20	9.0
	High School	130	58.2
	Pre-University	37	16.6
	Graduation	24	10.8

Predominantly the study participants were Hindus by religion and more than 60% were married. Most of them (66.8 %) were from middle socio-economic status and nearly 85% of the participants had obtained at least high school education.

Of the surveyed population, 77(34.5%) were ever users of tobacco with 63(81.8%) being current users and 14(19.2%) ex-users. Knowledge regarding harmful effects of tobacco on health was an important reason for quitting tobacco use among ex-users (41.3%). A statistically significant difference was observed in the tobacco usage among males and females. However, no significant association was observed with other socio-demographic variables and tobacco usage (Table 2). Among the tobacco users, the proportion of subjects using smokeless tobacco products was 60.3% while the rest smoked beedis or cigarettes.

Table 2: Tobacco usage status among surveyed population **N =223**

Characteristic		Never user No. (%)	Current user No. (%)	Ex-user No. (%)	p value
Gender	Male	71(31.8)	55(24.6)	13(5.8)	0.000
	Female	75(33.6)	08(3.6)	01(0.4)	
Age group (years)	18-29	42(18.8)	21(9.4)	8(3.5)	
	30-44	56(25.1)	18(8.0)	3(1.3)	0.261
	45-59	35(15.7)	13(5.8)	1(0.4)	
	≥ 60	13(5.8)	11(5.0)	2(0.8)	
Religion	Hindu	127(57.0)	51(22.8)	14(6.2)	
	Muslim	04(1.8)	05(2.2)	0	0.393
	Christian	15(6.7)	7(3.1)	0	
Marital Status	Single	49(22.0)	27(12.1)	7(3.1)	
	Married	93(41.7)	35(15.7)	7(3.1)	0.087
	Widow	04(1.8)	01(0.4)	0	
Socio-economic status	Low	38(17.0)	24(10.7)	04(1.8)	
	Middle	101(45.3)	38(17.0)	10(4.0)	0.143
	High	07(3.1)	01(0.4)	0	
Educational Status	Illiterate	8(3.6)	3(1.3)	1(0.4)	
	Primary	11(5.0)	9(4.0)	0	
	High School	82(36.8)	37(16.6)	11(5.0)	0.452
	Pre-University	26(11.6)	10(4.4)	1(0.4)	
	Graduation	19(8.5)	4(1.8)	1(0.4)	

Majority (89.7%) of the people were aware that tobacco use has harmful effects on health. The main sources of information quoted were television (65.4%), friends (50.7%), newspaper (47.8%) and doctors (24.9%). Most of the participants (66.8%) were aware that tobacco use can cause various cancers. Nearly half of them (51.6%) knew that tobacco use can affect lungs and a small proportion (18.4%) of the participants responded that it can also affect the heart.

On asking about their attitude towards persons using tobacco product, 168(75.3%) said that they would advise him / her to quit tobacco use, 38(17.0%) responded that they will not do anything, 11(4.9%) felt it is normal and would ignore it and 8(3.6%) preferred to avoid such people.

Among current consumers, 47 (21.0%) were willing to quit tobacco. The reasons for willingness to quit tobacco being: Harmful to health 26(11.6%); Advice from family and friends 21(9.4%); Wanted to stop 17(7.6%); Advice by physicians 7(3.1%); Bad influence on children 2(0.8%). The participants who were not willing to quit (25.4%) expressed that they do not feel the need to stop. However a quarter of them said that stress at work, tobacco use by close friends and family members and not knowing how to quit were the reasons for continuing tobacco use.

Discussion

Tobacco usage has remained high in various parts of the world in spite of the regulations implemented and extensive health education through various media.

The present study found that 34.5% of participants were either current or ex-users of tobacco in any form. A study conducted in Chennai reported 23.7% usage among the rural population [10] and the National Sample Survey 2010 found a 52% usage among the Indian households [11]. Similar finding was reported in a study conducted in Lebanon (53.6%) [12].

Most of the current consumers were in the age group of 18-44 years which is considered as the most vulnerable age group with peer pressure, family influence and easy accessibility being the most important contributing factors which corroborates with the study findings reported by Sinha DN et al [13].

Tobacco usage was more common among males compared to females, similar to the findings of Chockalingam K et al [10] and Flora MS et al [14]. Among these users, smokeless tobacco was the most commonly used form (60%) as observed in this study in contrast to the findings of Chockalingam K et al [10] who found a higher proportion of the participants smoking. However, Flora MS et al [14] found an almost equal prevalence of smoke and smokeless tobacco use.

Most of the participants (90%) were aware of the hazards of tobacco consumption on the health with not enough motivation to reduce the usage as reflected by the prevalence. This shows that behaviour change has to be given more importance than providing mere information.

Among the current users of tobacco, 74.6% of the participants were willing to quit tobacco use in our study, in contrast to 46.6% reported in the Global Adult tobacco survey (GATS) [1] and 46.9% in a study conducted in China [15]. The higher percentage of adults willing to quit tobacco use in our study could be due to better literacy levels and awareness in this area compared to the national average.

Conclusion

One third of the surveyed population were tobacco users, although majority of them were aware of its harmful effects. Three fourth of these users expressed their willingness to quit tobacco. Hence, there is a need to convert the knowledge into practice by behaviour change communication and support services like tobacco cessation clinic. Awareness campaigns to educate community regarding tobacco products and their harmful effects need to be strengthened further.

Acknowledgement

The authors acknowledge the contribution of fourth term medical students of 2011-12 batch in data collection and entry and thank all the participants for their active participation.

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