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Original Research Article

A study on the pattern of tobacco use and its implications on the health of patients, attending Karnataka Institute of Medical Sciences, Hubballi

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ABSTRACT

Background: Tobacco use plays an important role in the causation of various health issues. Although numerous efforts are being done to increase the awareness among people regarding its proven role in disease causation, it remains as one of the important public health issues in our country. Information regarding the tobacco habits in patients and its relation to their health status is scarce. Thus with this objectives, the present study was conducted in Karnataka Institute of Medical Sciences, Hubballi.
Methods: A cross-sectional, questionnaire based study was conducted among the outpatients of Karnataka Institute of Medical Sciences during July 2017. Information was collected regarding the form of tobacco used, duration of use and their health problems. Statistical analysis was carried out using descriptive statistics and chi-square tests using Statistical Package for Social Sciences (SPSS) version 21.
Results: The tobacco use was reported among 93 patients (44.3%). Among the tobacco users, majority of them were males (80.6%), and in the age group of 31-60 years (67.7%). The smokeless form of tobacco was the most common form used in both gender (44%). Health issues related to heart, respiratory system and oral cavity was seen more among the tobacco users than non-users.
Conclusions: The study concludes that tobacco consumption among patients attending KIMS Hospital is high, which clearly has a negative impact on their health. Health care institutions also have a major role in imparting health education and motivating their tobacco addict patients to quit the habit.

Keywords: Tobacco use, Smokeless, Health

INTRODUCTION

Tobacco consumption is one of the important behavioural risk factor for the development of various non-communicable diseases that has increased in the recent years.[1] Its role has been well established in the development of lung cancer, chronic obstructive pulmonary disease, cardiovascular diseases and is linked to diseases of almost all organs of the body.[2] There is also sufficient evidence to suggest that the involuntary exposure of non-smokers to tobacco smoke can increase their risk for development of these diseases and sudden infant death syndrome in children.[3] Tobacco not only poses a major threat for health, but also for the social and economic development, especially in the developing countries.[4]

The tobacco epidemic is one of the major threats in public health the world has ever faced, which kills more than 7 million people every year. Most of these deaths (6 million) are due to the direct use of tobacco and the remaining, as a result of being exposed to second-hand smoke.[5] According to the WHO, globally there are about 1.1 billion tobacco smokers aged 15 and above with majority (80%) of them living in low and middle income countries.[6]

India is the second largest consumer and the third largest producer of tobacco in the world, which contributes to the death of nearly 1 million people every year thus making it a major public health problem.[7-9] According to global adult tobacco survey (GATS) conducted in India during 2016-17, the prevalence of tobacco use among adults aged 15 and above was 28.6%, with the tobacco use being more in rural areas (1.9 million) compared to urban areas(0.68 million).[10]

Tobacco is consumed both in smoking and smokeless forms.[7] The smoking form of tobacco is dominant globally, whereas in India there is a diversity in the tobacco use depending on the availability of tobacco products at different price points, thus reflecting the socio economic and demographic patterns of consumption.[11] The various tobacco forms used in India are khaini, bidi, gutka, betel quid with tobacco and tobacco for oral application. Although smoking form is more common among males, the use of smokeless form of tobacco which is prominent in the country is quite widespread among both males and females.[10]

Thus with this background of the magnitude and diversity of tobacco use in India, and its deleterious effects on health, this study aims to estimate the prevalence of tobacco use and its ill effects among patients attending KIMS Hospital, Hubballi.

METHODS

This cross sectional study was conducted in Karnataka Institute of Medical Sciences, Hubballi in July 2017. A sample size of 210 was calculated by taking the prevalence of tobacco use as 24.78% based on a previous study in a tertiary hospital.[12] The study was approved by the Institutional Ethics Committee. The patients were randomly selected during registration at the outpatient department and the purpose of the study was explained. Informed consent was taken in the local language. The study participants were interviewed using a pre-designed and pre tested, semi structured questionnaire. The data was collected on socio-demographic characteristics, tobacco usage, duration and pattern of tobacco use along with the chief complaint for hospital visit. They were also asked in detail regarding the history of hypertension, diabetes, oral lesions and other tobacco related health effects. After the interview all the patients were given health education about the harmful effects of tobacco use and the smokers were advised to quit smoking.

The data collected was entered in Microsoft Excel and analysed using SPSS version 21.0. Chi square test was used and $p<0.05$ was considered statistically significant.

RESULTS

A total of 210 patients were interviewed in the present study. Table 1 reflects that the prevalence of tobacco use was seen among 93 patients (44.3%). It was seen that 37.6% of the tobacco users belonged to the age group of 46-60 years, most of them were males (80.6%) and 53.8% were from urban area. The tobacco usage was 64.6% among literates and more among the agriculturists (61.3%) compared to other occupations. A statistically significant association was found between the age group, gender and occupation with the tobacco use.

Table 1: Demographic distribution of the study subjects based on their tobacco usage.

Variables	Status of tobacco usage		Total	Chi square test
	User (n=93)	Non user (n=117)	N=210 (%)	
Age group (in years)	**Number (%)**	**Number (%)**	**Number (%)**	
15-30	13 (14)	53 (45.3)	66 (31.5)	$\chi2=31.41$ $p<0.00001$ (significant)
31-45	28 (30.1)	37 (31.6)	65 (30.9)	
46-60	35 (37.6)	20 (17.1)	55 (26.2)	
>60	17 (18.3)	7 (6)	24 (11.4)	
Gender				$\chi2 =29.64$ $p<0.00001$ (significant)
Male	75 (80.6)	51 (43.6)	126 (60)	
Female	18 (19.4)	66 (56.4)	84 (40)	
Residence				$\chi 2=2.93$ $p=0.08$ (not significant)
Urban	50 (53.8)	49 (41.9)	99 (47.1)	
Rural	43 (46.2)	68 (58.1)	111 (52.9)	
Literacy				$\chi2=2.394$ $p=0.122$ (not significant)
Literates	60 (64.6)	87 (74.4)	147 (70)	
Illiterates	33 (35.4)	30 (25.6)	63 (30)	
Occupation				$\chi2=29.14$ $p<0.00001$ (significant)
Homemaker	15 (16.1)	54 (46.2)	69 (32.9)	
Agriculture	57 (61.3)	32 (27.4)	89 (42.3)	
Business	8 (8.6)	15 (12.8)	23 (11)	
Professionals	13 (14)	16 (13.6)	29 (13.8)	

Table 2: Duration of the tobacco use among the respondents.

Duration of tobacco use	Frequency (n=93)	Percentage (%)
Less than 5 years	15	16.1
6-10 years	14	15.1
11-15 years	12	12.9
16-20 years	14	15.1
21-25 years	6	6.5
More than 25 years	32	34.4

Table 3: Gender wise distribution of various forms of tobacco used.

Forms of tobacco	Males Number (%)	Females Number (%)	Total (n=93) Number (%)	Chi square test
Smoking	23 (88.5)	3 (11.5)	26 (28)	χ^2=7.29 p=0.02 Significant
Smokeless	28 (68.3)	13(31.7)	41 (44)	
Both	24 (92.3)	2 (7.7)	26 (28)	

Table 4: Consumption of various tobacco products in males and females.

Forms of tobacco	Males Number (%)	Females Number (%)	Total (n=93) number (%)
Beetle leaf with tobacco	27 (64.3)	13 (35.7)	40 (43)
Pan masala	26 (92.8)	2 (7.2)	28 (30.1)
Bidi	22 (81.5)	5 (18.5)	27 (29)
Cigarette	26 (100)	0 (0)	26 (27.9)
Crushed tobacco	5 (83.3)	1 (16.7)	6 (6.5)
Tobacco Snuff	1 (100)	0 (0)	1 (1)

Table 5: Distribution of the various health problems according to the tobacco use among the respondents.

Health problems	Status of tobacco use		
	Users (n=93) Number (%)	**Non user (n=117) Number (%)**	**Total (n=210) Number (%)**
Cardiovascular	38 (65.5)	20 (34.5)	58 (27.6)
Respiratory	15 (83.3)	3 (16.7)	18 (8.6)
Oral lesions	17 (77.3)	5 (22.3)	22 (10.5)
Gastrointestinal problems	12 (32.4)	25 (67.6)	37 (17.6)
Others	11 (14.7)	64 (85.3)	75 (35.7)

χ^2 =60.1, p< 0.00001, significant.

The duration of tobacco use is depicted in Table 2. Among the tobacco users, 16.1% reported the tobacco use for less than five years, 15.1% for 6 to 10 years and majority of them were using tobacco for more than 10 years (68.9%).

Table 3 shows the various forms of tobacco used in males and females. Most of the tobacco users consumed smokeless form of tobacco (44%), the next common type being either smoking form (28%) or both the forms (28%). The smoking form was mainly seen among males (88.5%) and only 11.5% in females. Similarly, the smokeless form also showed predominance in males followed by females (31.7%). There was a statistically significant association between the forms of tobacco used and the gender of patients.

The various tobacco products consumed by males and females are shown in Table 4. The most common tobacco product used was beetle leaf and tobacco (43%), followed by pan masala (30.1%), bidi (29%), cigarette smoking (27.9%), crushed tobacco (6.5%) and the snuffed form of tobacco being the least common (1%). Among the smokeless products, beetle leaf with tobacco was most commonly used in both sexes (64.3% in males and 35.7% in females). Cigarette smoking and bidi were the only smoking forms used by the patients.

Although, cigarette was used only in males, bidi was used both in males (81.5%) and females (18.5%).

Among the study subjects around 28% had cardiovascular problems like hypertension, chest pain and

diabetes, of which 65.5% were using tobacco. The respiratory problems like breathlessness, chronic cough and oral lesions like chronic ulcers were also seen mainly among tobacco users (83.3% and 77.3% respectively). Among the other health issues like gastrointestinal pain, acute diarrhoea, fever and headache, majority of the patients were non users of tobacco. There was a statistically significant association between the various health problems and the tobacco usage (Table 5).

DISCUSSION

The present study revealed the prevalence of tobacco use among the patients as 44.3% which is quite high than that reported by Mishra et al as 24.78% but lower compared to a prevalence of 62.1% reported by Hussain et al.[12,13] Among males, the tobacco use was seen in 59.5% while in females it was 21.4%, which is similar to the findings of GATS 2009-10 which reported a prevalence of 48% and 20% among males and females respectively.[14]

About 67.7% of the tobacco users belonged to the age group of 31-60 years, similar to a study by Katz et al, where the tobacco use was more in the age group of 35-54 years.[15] Among the various occupations a higher prevalence of tobacco use was noted among the agriculturists (61.3%) and then other occupations, whereas in a study by Patil et al, high prevalence was seen among unemployed (51.47%) followed by manual labour (32.35%).[16]

The smokeless form of tobacco was the most common form used by both males and females with prevalence of 44% overall, followed by either smoking form or mixed form which is consistent with the findings of GATS 2016-17 where smokeless form of tobacco is the most common form used.[10] The consumption of beetle nut with tobacco was the most common form of smokeless tobacco used(43%) and bidi being the most common smoking form (29%) whereas mishri and ghukta were the most common smokeless form with bidi being the common smoking form used, as reported by Hussain et al.[13] Most of the tobacco users reported the tobacco use for more than 10 years (68.9%), in accordance to a study by Mishra et al, where 53.96% were using tobacco for more than 10 years.[12]

Among the patients, the cardiovascular problems was seen 65.5% of the tobacco users, respiratory complaints in 83.3% and oral lesions was present in 77.3% of the tobacco users. This is consistent with various researches which have proved tobacco to be an established risk factor for various health issues.

Limitations

This is a hospital based study with a small sample, thus the results cannot be generalised.

CONCLUSION

The study concludes that there is clearly a higher prevalence of tobacco use among patients attending KIMS, Hubballi. The tobacco use in any form has an impact on their health which can be seen by the higher prevalence of non-communicable diseases among the tobacco users. The health care institutions and teaching hospitals can conduct more effective awareness programmes among the patients by clearly demonstrating the harmful effects of tobacco use and further motivating and helping them to quit the habit.

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