

Short Communication

Proportion and Pattern of Tobacco Use: A Study of its Determinants and Awareness Among Class Iv Workers of a Private Medical College in an Urban Area In South India

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Keywords

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Abstract

Context: Tobacco consumption in all forms has been growing every year in India and these products are widely used by Class IV workers.

Aims: This study was done to find out the proportion, risk factors and pattern of tobacco use and to assess awareness about its harmful effects among these workers.

Settings and design: Cross-sectional study among class IV workers employed in hospitals and hostels of a private medical college.

Methods and material: Convenience sampling method was used for selecting participants. Data was collected using a semi-structured interview schedule.

Statistical analysis: Pearson's Chi square test and multivariate analysis (logistic regression)

Results: Age of participants ranged from 23 to 58 years. Mean years of tobacco use was 14.3 years (SD 8.6). Majority of the users 38 (61.3%) picked up the habit from their friends. Use of tobacco containing products was associated with marital status (OR=4.39, CI 1.77 to 10.9, P<0.001) and educational status (P=0.031). Only 96 (43.6%) participants knew at least one health hazard associated with tobacco use and 46 (20.9%) participants knew that it causes cancer. As many as 45 (72.6%) users continued to use tobacco products in spite of being aware of its harmful effects. Only 75 (34.1%) out of total participants knew that passive smoking was hazardous to health.

Conclusion: Awareness of health hazards was poor among class IV workers. Health education and counseling need to be implemented in those settings to bring about behavioral change among those workers.

INTRODUCTION

Tobacco consumption is a major cause of health problems in India. The nationwide Global Adult Tobacco Survey reported that tobacco in all forms was used by 34.6% of adults aged above 15 years (47.9% in males and 20.3% in females) [1].

Tobacco use in India differs from other parts of the world with hardly 20% being in the form of cigarettes. More common use occurs in the form of 'bidi' (filterless cigarette containing tobacco flakes wrapped in tendu leaves), 'pan-masala' or 'gutka' (chewable mixture of tobacco and areca nut), 'snuff' (finely ground tobacco dust which is insufflated into the nasal cavity) and 'mishri' (tobacco paste rubbed on the gums) [2]. Tobacco consumption in all forms in India has been continuously growing every year at 2-3% as per the World Health Organization report [2].

Hence, it becomes important for researchers to find out reasons for this in spite of efforts by the government to curtail its use by legislations and taxation. Very limited studies have been done regarding tobacco use pattern and awareness of its health hazards among Class IV workers. This group comprises ward boys, peons, cleaning workers and attenders who are being commonly observed to use these products. This study was hence done to find out the proportion, risk factors and pattern of tobacco use and to assess awareness about its harmful effects among Class IV workers in an urban area in south India.

MATERIAL AND METHODS

This study was done in July 2014 among Class IV workers employed in hospitals and hostels of a private medical college in Mangalore city. Ethical clearance was obtained from the Ethics Committee of this institution. Sample size was calculated as 220

subjects based on the prevalence of tobacco use in any form to be 30% from a previous national survey [3] with 95% confidence level and 80% power. Convenience sampling method was used for selecting participants. The purpose and procedure of the study was first explained. Privacy was maintained while interviewing each participant and confidentiality of the information provided was assured as well. All consenting participants were asked to give their consent in writing. A pre-tested semi-structured interview sheet was used for obtaining information. The schedule was language validated by translation and back translation into local language, Kannada, by two different language experts. The schedule contained questions regarding the participants' chewing/smoking habits, age of initiation, frequency of use, reasons for use, family history of tobacco use and awareness of participants' about tobacco use related health hazards. Descriptive statistics was prepared and data was presented as means, proportions and percentages. Pearson's Chi square test was used to find association between tobacco consumption and variables of interest. Multivariate analysis (logistic regression) was performed to find out the independent effect of some potential predictors. Significance was set to 'p' value less than 0.05. Analysis was done using SPSS version 17.0

RESULTS

Out of the total 220 workers, 90 (40.9%) were males and 130 (59.1%) were females. Mean age of all the workers was 40.2 years (SD=8.2). The age of the workers ranged from 23 to 58 years.

Most of the workers 185 (84.1%) were educated till class 10th, were married 198(90.0%) and were from nuclear family 154 (70%). Mean work experience of all the workers was 8.9 years (SD=6.1). Use of tobacco containing products was reported by 62 (28.2%) participants. The most commonly used tobacco containing product among participants was snuff 38 (61.3%) (Figure 1). Among the snuff users mean quantity of snuff used in a day was 34.5 gm. (SD=15.2) and mean consumption of gutka was 6.2 packets (SD=4.1) every day.

Age of starting the habit among users ranged from 10 years to 50 years. Mean age of starting the habit was 28.2 years (SD=7.7).

Mean years of use was 14.3 years (SD=8.6). Majority of the users 38 (61.3%) picked up the habit from their friends. Among all users, 20(32.3 %) made attempts to quit but only 5(8.1%) users were successful.

Tobacco consumption was reported by 13 (59.1%) out of 22 unmarried respondents compared to 49 (24.7%) out 198 married respondents (OR= 4.39, CI= 1.77 to 10.9, P<0.001). Use was seen among greater proportion of participants educated till pre-university course compared to others (P=0.031). No association of age was seen with tobacco use among participants. Gender wise distribution among the users and non-users of tobacco was also not significant (OR= 0.88, CI= 0.483 to 1.606, P=0.628). Similarly, type of family (OR=1.744, CI=1.77 to 10.9, P=0.077) and family history of tobacco use was also not associated with the use of these products among participants (OR= 0.858, CI=0.452 to 1.631, P=0.641) (Table 1).

Only 96(43.6%) participants knew at least one health hazard associated with tobacco use, 46 (20.9%) knew that it causes cancer, 15 (6.8%) knew that it causes hypertension and 22 (10%) that it causes breathlessness. Only 75 (34.1%) out of the total participants knew that the passive smoking was hazardous to health. As many as 45 (72.6%) users continued to use tobacco products in spite of being aware of its harmful effects. Twenty tobacco users (32.3%) expressed their desire to quit, 10 stating financial reasons and the other 10 due to health problems.

Misconceptions like snuff relieves cold, sneezing and nauseating sensation was present among 17 (44.7%) out of 38 snuff users. Six out of 10 gutka users felt relieved of tooth ache after use.

Binary logistic regression analysis found age, marital status, educational status and type of family of participants to be associated with tobacco use after adjusting the effect of confounders (Table 2).

DISCUSSION

There has been very limited research done on use of tobacco containing products among Class IV workers. In studies done

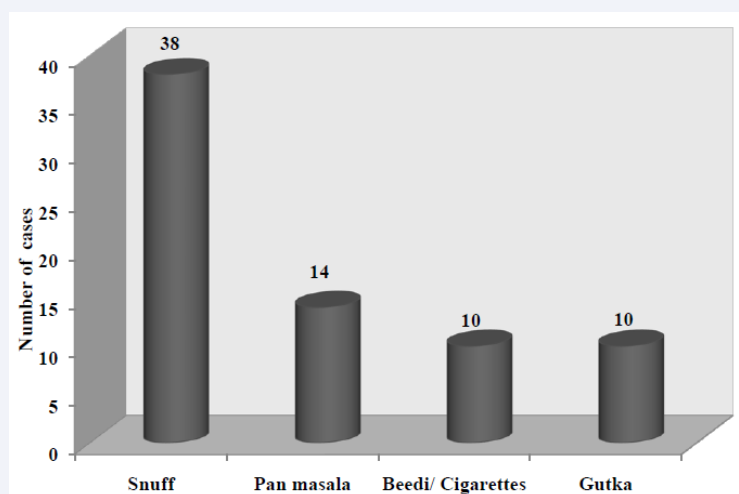


Figure 1 Distribution of ever use of tobacco containing products among Class IV workers (n=62).

Table 1: Association between socio demographic factors with tobacco use among participants.

Socio demographic variables	Tobacco use		Total
	Present	Absent	
Age (years)	Number (percentage)	Number (percentage)	
< 30	10(29.4)	24(70.6)	34
30-35	11(25)	33(75)	44
36-40	14(26.4)	39(73.6)	53
41-45	12(27.3)	32(72.7)	44
46-50	4(25)	12(75)	16
>50	11(37.9)	18(62.1)	29
			X ² =1.787, P=0.878
Gender			
Males	24(26.7)	66(73.3)	90
Females	38(29.2)	92(70.8)	130
			X ² =0.173, P=0.678
Marital status			
Married	49(24.7)	149(75.3)	198
Unmarried	13(59.1)	9(40.9)	22
			X ² =11.538, P<0.001
Type of family			
Nuclear	38(24.7)	116(75.3)	154
Joint	24(36.4)	42(63.6)	66
			X ² =3.118, P=0.077
Educational status			
Lower primary school	7(28)	18(72)	25
Higher primary school	12(17.9)	55(82.1)	67
High school	27(29)	66(71)	93
Pre university course	16(45.7)	19(54.3)	35
			X ² =8.842, P=0.031
Family history of tobacco use			
Present	18(26.1)	51(73.9)	69
Absent	44(29.1)	107(70.9)	151
			X ² =0.218, P=0.641
Total	62	158	220

Table 2: Multivariate analysis of predictors of tobacco use among participants (n=62).

	B	S.E.	Wald	P	AOR	95% C.I for AOR	
						Lower	Upper
Age group	-0.244	0.113	4.68	0.031*	0.784	0.628	0.977
Education status	-0.189	0.076	6.106	0.013*	0.828	0.713	0.962
Gender	-0.612	0.368	2.769	0.096	0.542	0.264	1.115
Marital status	-1.44	0.543	7.028	0.008**	0.237	0.082	0.687
Type of family	0.782	0.365	4.583	0.032*	2.186	1.068	4.472
Family history of tobacco use	-0.385	0.394	0.958	0.328	0.68	0.314	1.471
Constant	5.219	1.439	13.149	0.000	184.837		

*Significant **Highly significant B: regression coefficient; SE: Standard Error; P: Probability; AOR: Adjusted Odds Ratio; CI: Confidence interval

in different parts of India the prevalence of tobacco use among tea industry workers [4], power loom workers[5] and daily wage laborers [6] was found to be 54.7%, 85.9% and 88.7% respectively. From these observations it is very obvious that tobacco use among workers in these settings was much lesser than that seen elsewhere. Since participants in this study were employed in a medical college, it might have resulted in better

awareness on health related issues which could have resulted in less tobacco use. Age of participants was not associated with tobacco use in this study which was similar to the findings of the study done among power loom workers in Allahabad, India [5].

Tobacco use was seen significantly less among married participants in this study probably because of familial responsibilities and pressure. Most common reason for

initiating tobacco use was influence of friends circle as also reported in a study done in Bhubaneswar, India [6]. Feeling of elation following tobacco users was also reported as a reason for initiation in the latter study [6]. Misconceptions like it can treat a few common medical problems were reported by a few participants in this study. These misconceptions can be best debated and other doubts can be clarified by free exchange of ideas in focus group discussions (FGDs) involving smokers, ex-smokers and medical experts.

In this study about half of the participants and 80% of power loom workers in another study knew that tobacco use is injurious to health. But the desire to quit this habit was expressed only by one third in this study and by 7.3% participants in the latter study [5]. Therefore information dissemination needs to be supplemented with FGDs and role plays to bring about behavioral change which is very much required in these settings.

CONCLUSION

About one fourth of Class IV workers were found to be using tobacco containing products. Only about half of the participants knew the hazards associated with tobacco use. Considering the surge of non-communicable diseases in the back drop of its economic implications in a developing country like India, health educators need to play a lead role in educating these workers. Added to this Mangalore City Corporation should seriously consider strict enforcement of tobacco control activities in the region. This will bring about behavioral changes among masses leading to discontinuation of tobacco use in future.

Strengths

This was the first study done on tobacco use among Class IV workers in this region. The binary logistic analysis was done to

identify the potential determinants influencing tobacco use after adjusting the effect of confounders.

Limitations

The study was done among the workers of a single institution in the region and hence the findings may not be generalizable to the entire settings. Non random sampling method was also used for enrolment of participants and it could also add some amount of bias in the results.

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REFERENCES

1. Global Adult Tobacco Survey. Fact sheet India. Mumbai: International Institute for Population Sciences; 2009-10.
2. Tobacco or health: a global status report. Geneva: World Health Organization; 1997.
3. Rani M, Bonu S, Jha P, Nguyen SN, Jamjoum L. Tobacco use in India: prevalence and predictors of smoking and chewing in a national cross sectional household survey. *Tob Control*. 2003; 12.
4. Medhi GK, Hazarika NC, Mahanta J. Correlates of alcohol consumption and tobacco use among tea industry workers of Assam. *Subst Use Misuse*. 2006; 41: 691-706.
5. Ansari ZA, Bano SN, Zulkifle M. Prevalence of tobacco use among power loom workers - a cross-sectional study. *Indian J Community Med*. 2010; 35: 34-39.
6. Panigrahi A, Das BC, Panigrahi M. Tobacco use among daily wage laborers in the city of Bhubaneswar, Odisha, India. *Journal of Public Health*. 2012; 21:57-61.

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