ORIGINAL ARTICLE
pISSN 0976 3325 | eISSN 2229 6816
Open Access Article
www.njcmindia.org

Study on the Pattern of Tobacco Usage among the Residents of an Urban Area in Raichur and Factors Influencing Their Intention to Quit Tobacco

Ayesha Siddique Nawaz[1], Swetha Rajeshwari[2], Bheemayya Badesab[3]

Financial Support: None declared
Conflict of Interest: None declared

How to cite this article:
Pattern of Tobacco Usage among the Residents of an Urban Area in Raichur and Factors Influencing Their Intention to Quit Tobacco. Natl J Community Med 2018; 9(3):199-203

Author's Affiliation:
[1]Associate Professor; [2]Assistant Professor; [3]Prof and Head, Department of Community Medicine, Navodaya Medical College, Raichur

Correspondence
Swetha Rajeshwari
swetaraji24@gmail.com

Date of Submission: 20-01-18
Date of Acceptance: 09-03-18
Date of Publication: 31-03-18

ABSTRACT

Background: About 28.6% of Indian population aged 15 years and above use tobacco in any form. With the pictorial warning on tobacco products, awareness towards tobacco hazards has increased with time but its role alone towards cessation is questionable. This research was conducted to study the pattern of tobacco usage among residents of an urban area and also to know the factors influencing their intention to quit.

Methods: This Community based cross sectional study was carried out in the urban area for a period of two months.Data about pattern of tobacco usage and intention to quit was collected from 170 tobacco users aged 15 years and above, using tobacco either in smoking or smokeless form.

Results: About 48.2 % of the study subjects smoked tobacco, 42.9 % used smokeless form and 8.8 % used both forms. Education, awareness of health hazards and noticing pictorial warning played vital role in intention to quit

Conclusion: Tobacco users unable to quit, despite having intention to quit tobacco should be made aware of Tobacco Cessation Clinic and encouraged to seek help.

Key words: Tobacco use, smoking, smokeless tobacco, intention to quit, pictorial warning

INTRODUCTION

Tobacco use is considered the most important preventable cause of adult death and disease globally. In India Smokeless tobacco (SLT) is the predominant form of tobacco used and is available in many forms, while in most countries smoking is the predominant form of tobacco used. India accounts for the world's largest SLT market and about 14% of the country's land is used for growing varieties of smokeless tobacco. Though SLT is used by all irrespective of their social class, its use is more prevalent among the people of low socio-economic class, labourers and people living in rural areas. Among Indian women smoking is culturally unacceptable but smokeless tobacco is acceptable culturally.[1,2]In April 2016, the Government of India implemented a regulation which made it mandatory to put large pictorial health warnings depicting the hazards of tobacco use on both smoked and smokeless tobacco products. The size of the pack warning was increased to 85% from 40% of both front and back panels on all tobacco products.[3,4] As per the Global Adult Tobacco Survey (GATS)-2 conducted in India in 2016–17, 28.6% of the population aged 15 years and above used tobacco in any form, every 5th adult used tobacco in smokeless form while every 10th adult smoked tobacco. The survey reported the prevalence of tobacco use had reduced by 6% when compared to GATS-1 (2009-10) while 55% of smokers and 50% of smokeless tobacco users had thought or planned of quitting tobacco use. This decline in the tobacco usage and increased demand to quit tobacco productscan be attributed to thevital role played by the graphic warning labels depicting tobacco related health hazard.[4] The pictorial warnings have increased the awareness

about the tobacco related health hazard among the general public, but its role alone in cessation of tobacco is questionable.

OBJECTIVES

The research was under taken to study the pattern of tobacco usage among residents of an urban area and also to know the factors influencing their intention to quit tobacco.

MATERIALS AND METHODS

This Community based cross sectional study was carried out in the urban field practice area of Navodaya Medical College, Raichur. All the permanent residents of the urban field practice area aged 15 years and above who were using tobacco in either smokeless form or smoking tobacco and those who were willing to participate in the study were included. Residents who were ill and not able to give information and Houses which were locked at the time of visit were excluded. During the study period of two month (June-August 2017), data was collected from 170 people by using a predesigned pretested semi-structured questionnaire. Information was collected on basic demographic details like education, occupation, type of family, socio-economic status. Modified B.G. Prasad's classification was used to measure the socioeconomic class.[5]type of tobacco used, duration of tobacco usage, age at initiation and reason for initiating tobacco, frequency of usage per day, awareness on health effects of tobacco, whether noticed any pictorial warning on tobacco packs, whether they intend to quit tobacco and expenditure on tobacco.

Definitions:[6]

Nuclear family: A family consisting of the married couple and their children while they are still considered as dependents.

Joint Family: A family consisting of a number of married couples and their children who live together in the same household, the men being related by blood and women of the household are their wives, unmarried girls or widows of family kinsmen.

Dependence: It can be physical where when the substance is withdrawn, the subject shows withdrawal symptoms or psychological where the subject experiences an overpowering desire to take the drug.

Stress: It was the feeling of anxiety and irritability experienced by the subject. This response was recorded in the patients' words.

Data was entered in Microsoft excel 2010 and analysed using Epi Info 7. Results were expressed as percentages and proportions. Chi square test was used to test the association between two variables. A p value of <0.05 was considered significant. Logistic regression was used to further know the association of variables found to be significant on uni-variate analysis.

RESULTS

The mean age of the study subjects was 45.7+14.6 years. In the study 71.2% of the tobacco users were males and 28.8% were females. Majority of the study subjects were illiterate (43.5%), followed by those with Higher primary (23.5%) and primary education (17.1%). Majority of the study subjects were engaged as unskilled labourers (31.8%).Most of the study subjects belonged to class IV (37.6%) and Class V (24.7%) socio-economic status.

The mean age at starting tobacco was 24.3+8.6 years. As seen in Table 2, 48.2 % of the study subjects smoked tobacco, 42.9 % used smokeless form and 8.8 % used both forms of tobacco. Among the smokers (97), most were using (50.5%) cigarettes and among the smokeless tobacco users (88), most were using beetle leaf with tobacco and arecanut (46.6%). Women were using smokeless form of tobacco.

Table 1: Characteristics of the study population

Variable	Frequency (n=170) (%)
Gender	
Male	121 (71.2)
Female	49 (28.8)
Education	
Illiterate	74 (43.5)
Primary	29 (17.1)
Higher primary	40 (23.5)
Pre-University	9 (5.3)
Graduate	18 (10.6)
Occupation	
Unemployed	5 (2.9)
Unskilled worker	54 (31.8)
Semiskilled worker	3 (1.8)
Skilled worker	37 (21.8)
Shopkeeper, business	24 (14.1)
Semi-professionals	19 (11.2)
Home-maker	28 (16.5)
Type of Family	
Nuclear	124 (72.9)
Joint	46 (27.1)
Socio-economic status	
Class I	7 (4.1)
Class II	22 (12.9)
Class III	35 (20.6)
Class IV	64 (37.6)
Class V	42 (24.7)

Table 2: Pattern of tobacco usage among the study subjects

Variable	Frequency (%)
Type of tobacco used (n=170)	
Smoking	82 (48.2)
Smokeless	73 (42.9)
Both	15 (8.8)
Smoking(n=97)	
Beedi	38 (39.2)
Cigarette	49 (50.5)
Beedi & Cigarette	10 (10.3)
Smokeless (n=88)	
Only tobacco	21 (23.9)
Beetle leaf with tobacco and arecanut	41 (46.6)
Tobacco with lime	1 (1.1)
Tobacco as sniff (Nasi)	5 (5.7)
Paan masaala	7 (7.9)
Gutkha	13 (14.8)
Reason for initiation (n=170)	
Leisure	65 (38)
Peer pressure	59 (34.7)
Influence of a family member	4 (2.4)
Stress	26 (15.3)
Relationship issues	3 (1.8)
Death of a loved one	5 (3)
As a remedy for illness	8 (4.8)
Aware of the health effect of tobacco (n=170)	128 (75.3)
Noticed the pictorial warning on tobacco products (n=170)	107 (62.9)
Intention to quit tobacco (n=170)	69 (40.6)
Reason for intention to quit (n=69)	
Ill effects	51 (74)
Concern about family	8 (11.6)
Cost	3 (4.3)
Pressure from family to quit	7 (10.1)
Reason for not being able to quit (n=69)	
Dependence	62 (89.8)
Stress	4 (5.8)
Did not try	2 (3)
Friend circle	1 (1.4)

As seen in Table 2, the common reasons cited for initiation of tobacco were leisure (38%), peer pressure (34.7%), stress (15.3%) and as a remedy for health problems like headache, cold, toothache and bleeding gums (4.8%). The people with bleeding gums and toothache said they rub tobacco as a paste on their gums. Most of the study subjects (75.3%) were aware of the health hazards of tobacco and almost two third of them quoted cancer as the health hazard. Though 62.9% of study subjects had noticed pictorial warning on tobacco products only 40.6% expressed their willingness to quit tobacco.

The main reason for their intention to quit was ill effects of tobacco (74%) and a very few (4.3%) quoted increased cost as their reason behind intention to quit. Majority (89.8%) of the study subjects said they are not able to quit tobacco despite their intention to quit because they feel they are dependent on it. About 5.8% of the study subjects quoted stress at the workplace because of which they could not quit the tobacco use.

Education, socio-economic status, type of tobacco used, duration of usage, awareness of health hazards of tobacco and noticing the pictorial warning on tobacco products were the variables which were found to be significant on univariate analysis. These variables were further analysed using logistic regression. As seen in Table 3, odd ratio for intention to quit tobacco was found to be higher among the study subjects who were educated up to higher primary and among graduates than those with less education. Intention to quit was higher among those who were aware of health hazards of tobacco. But it was not found to be significant. Odds ratio for intention to quit was 2.5 times more among those who had noticed the pictorial warning on tobacco products than those who had not. This association was statistically significant.

The average amount of money spent on tobacco was 618.4+776.7. The amount spent on tobacco ranged from a minimum of Rs.30 to maximum of Rs.4200. About 13.5% of the study subjects used to borrow money from others for tobacco use.

DISCUSSION

This Community based cross sectional study was carried out in the urban field practice area of Navodaya Medical College, Raichur. During the study duration about 170 residents of the urban field practice area aged 15 years and above who were using tobacco in either smokeless form or smoking tobacco were interviewed. The mean age of the study subjects was 45.7+14.6 years. The mean age at starting tobacco was 24.3+8.6 years. About 48.2 % of the study subjects smoked tobacco, 42.9 % used smokeless form and 8.8 % used both forms of tobacco. Women were using mainly smokeless form of tobacco. In a study carried out by Mishra GA et al about 22.30% of the total female population consumed tobacco, mainly in the smokeless forms, with only 0.50% of the female tobacco users smoked tobacco. Masheri, a burnt tobacco powder used to clean teeth was the most common form of tobacco used by them.[2]Even our study shows few of the study subjects used to rub tobacco like a paste on their gums. In our study most smokers were using (50.5%) cigarettes and among the smokeless tobacco users (88), most were using beetle leaf with tobacco and arecanut (46.6%). In a study by Joshi U et al 7.4% were found to be tobacco smokers, while 32.9% were reported to be tobacco chewers. About 4% were using both smoking and smokeless forms of tobacco. Mawa-masala was the predominant form of smokeless tobacco used followed by Gutka and tobacco in pan.[7]

Table 3: Factors influencing intention to quit among tobacco users

Variable	Intention to quit Tobacco		Total (n=170) (%)	OR (CI)	P value
	No (n=101) (%)	Yes (n=69) (%)			
Education					
Illiterate	53 (52.5)	21(30.4)	74 (43.5)		
Primary	21 (20.8)	08 (11.6)	29 (17.1)	0.6(0.19-1.9)	0.41
Higher Primary	17 (16.8)	23 (33.3)	40 (23.5)	1.2(0.4-3.4)	0.74
Pre-University	05 (5.0)	04 (5.8)	09 (5.3)	0.5(0.09-2.8)	0.45
Graduates	05 (5.0)	13 (18.8)	18 (10.6)	3.1(0.7-12.5)	0.11
Socio-Economic status					
Class I	04 (4.0)	03 (4.3)	07 (4.1)		
Class II	09 (8.9)	13 (18.8)	22 (12.9)	3.1(0.38-25.6)	0.28
Class III	24 (23.8)	11 (15.9)	35 (20.6)	0.8(0.1-6.9)	0.9
Class IV	33 (32.7)	31 (44.9)	64 (37.6)	2.5(0.34-18.8)	0.35
Class V	31 (30.7)	11 (15.9)	42 (24.7)	1.4 (0.16-11.8)	0.75
Type of tobacco used					
Both	08 (7.9)	07 (10.1)	15 (8.8)		
Smokeless	55 (54.5)	18 (26.1)	73 (42.9)	0.3(0.07-1.34)	0.12
Smoking	38 (37.6)	44 (63.8)	82 (48.2)	0.7(0.17-2.9)	0.63
Duration of tobacco usage (in years)					
1 – 10	27 (26.7)	28 (40.6)	55 (32.4)		
11-20	19 (18.8)	16 (23.2)	35 (20.6)	0.7(0.27-2.06)	0.57
21-30	20 (19.8)	13 (18.8)	33 (19.4)	0.7(0.25-2.47)	0.69
31-40	24 (23.8)	04 (5.8)	28 (16.5)	0.2(0.06-1.0)	0.05
41-50	11 (10.9)	08 (11.6	19 (11.2)	0.6 (0.16-2.07)	0.40
Aware of health hazards of tobacco					
No	34 (33.7)	08 (11.6)	42 (24.7)		
Yes	67 (66.3)	61 (88.4)	128(75.3)	2.5(0.92-7.01)	0.07
Noticed the pictorial warning					
No	51 (50.5)	12 (17.4)	63 (37.1)		
Yes	50 (49.5)	57 (82.6)	107 (62.9)	2.8(1.17-6.73)	0.02
Total	101 (59.4)	69 (40.6)	170 (100)		

*statistically significant with p<0.05

The common reasons cited for initiation of tobacco were leisure (38%), peer pressure (34.7%), stress (15.3%) and as a remedy for health problems like headache, cold, toothache and bleeding gums (4.8%). The people with bleeding gums and toothache said they rub tobacco as a paste on their gums. Most of the study subjects (75.3%) were aware of the health hazards of tobacco and almost two third of them quoted cancer as the health hazard. The Tobacco Control Policy (TCP) India Pilot Study Survey carried out in selected rural and urban areas of Maharashtra and Bihar, showed better awareness of adverse effects among the urban study subjects when compared to rural population.[8]About 62.9% of study subjects had noticed pictorial warning on tobacco products but only 40.6% expressed their willingness to quit tobacco. In contrast to our findings, a study by Islam K et al showed more than 60% subjects intended to quit tobacco.[9]In our study the main reason for their intention to quit was ill effects of tobacco (74%) and a very few (4.3%) quoted increased cost as their reason behind intention to quit. Studies have showed that the main reasons given by the smokeless tobacco users for their intention to quit were money concerns, family pressure and awareness of health hazards of tobacco.[10,11] A study carried out among the Vietnamese smokers found that smokers who had made an attempt to quit in the past year were more motivated to quit tobacco than those who had not made an attempt.[12] This proves that motivation is very important among the tobacco users to help them quit. In our study we have taken information on their intention to quit but not about their previous attempts to quit, which could have shed light on how motivated they are.

Our study shows that noticing the pictorial warning on tobacco products plays a vital role in intention to quit tobacco. The other factors which were vital, though statistically not significant were education and awareness on health hazards of tobacco. Similar findings were reported by Surani NS et al in their study.[13]

Among the tobacco users who expressed their intention to quit, majority (89.8%) said they are not able to quit tobacco despite their intention to quit because they feel they are dependent on it. A qualitative study carried out by Robert AS among students of higher secondary school reported that despite having seen the pictorial warnings on tobacco products, the adolescents showed no signs of quitting, as they took these health warnings for granted. The study also reported that since the us-

ers were seeing the health warnings so often during their usage, they had almost become immune to the warning and started ignoring it.[14]A study by Karigannanavar A shows that the pictorial warnings had very low impact on quitting or reducing tobacco usage.[15]This shows though pictorial warning are a powerful tool, tobacco users tend to ignore it often. But there are many studies which reinforce the fact that a picture is more powerful than a thousand words. These studies show that the tobacco users who had noticed the health warning had reduced the tobacco use or were willing to do so.[16,17]

Hence the above findings show that pictorial warning is effective indeed, but it depends on the way people perceive it. Some may be motivated, make an attempt and eventually quit or reduce tobacco usage, some give it a thought at that moment but their motivation does not last long, some ignore even after noticing the warning and for some it is just a design on the packaging of tobacco products. Quitting tobacco takes a great deal of effort and is a process involving multiple quitting attempts, hence the health care providers should keep in mind the past quitting attempts of the patient while initiating tobacco cessation intervention.[18]

CONCLUSION

Our study shows that nearly half of the tobacco users were smokers. All the female tobacco users were using it in smokeless form. Noticing pictorial warning emerged as a factor which played vital role in intention to quit. Education, awareness of tobacco hazards were also found to influence intention to quit but were not significant. As increased cost was quoted by few as the reason for intention to quit, price raise might help in curbing the usage to some extent. Our study reinforces the belief that a picture is worth a thousand words. But intention to quit requires a great deal of motivation from tobacco users. Hence there is a need to make them aware of the Tobacco Cessation Clinic and encourage them to seek help to quit.

Acknowledgement: The authors thank all the study subjects who participated in the study for their cooperation.

REFERENCES

1. Ministry of Health & Family Welfare, GOI.Smokeless Tobacco and Public Health in India, Executive Summary. MOHFW. Available from http://www.searo.who.int/india/tobacco/smokeless_tobacco_and_public_health_in_india.pdf?ua=1 (Accessed on 24-01-2018)
2. Mishra G.A, Kulkarni S.V, Gupta S.D, Shastri S.S. Smokeless tobacco use in Urban Indian women: Prevalence and predictors. Indian J Med Paediatr Oncol. 2015 ;36(3): 176–182.
3. World Health Organisation. WHO report on the global tobacco epidemic, 2017. Country profile, India. WHO. Available from http://www.who.int/tobacco/surveillance/policy/country_profile/ind.pdf (Accessed on 24-01-2018)
4. WHO, MOHFW. Global Adult Tobacco Survey GATS-2 India 2016-17, Highlights. Available from https://mohfw.gov.in/sites/default/files/GATS-2%20Highlights.pdf (Accessed on 26-08-2017)
5. Singh T, Sharma S, Nagesh S. Socio-economic status scales updated for 2017. Int J Res Med Sci 2017;5:3264-7.
6. Park K. Park's Textbook of Preventive and Social Medicine, 24th Ed. Jabalpur: Banarsidas Bhanot Publishers;2017.720-21.
7. Joshi U, Modi B, Yadav S. A Study on Prevalence of Chewing Form of Tobacco and Existing Quitting Patterns in Urban Population of Jamnagar, Gujarat. Indian J Community Med. 2010 Jan; 35(1): 105–108.
8. Raute LJ, Sansone G, Pednekar MS, Fong GF, Gupta PC, Quah AC et al. Knowledge of Health Effects and Intentions to Quit amongSmokeless Tobacco Users in India: Findings from theInternational Tobacco Control Policy Evaluation (ITC) India Pilot Survey. Asian Pacific J Cancer Prev. 2011;11.
9. Islam K, Saha I, Saha R, Khan SA, Thakur R, Shivam S. Predictors of quitting behavior with special reference to nicotine dependence among adult tobacco□users in a slum of Burdwan district, West Bengal, India. Indian J Med Res 2014;139:638□42.
10. Parashar M, Singh M, Agarwalla R,Panda M, Pathak R. Predictors of intention to quit tobacco among construction site workers in Delhi, India. Indian J Psychiatry 2017;59:208-13.
11. Imtiaz D, Kandpal SD, Juyal R. A cross sectional study on quitting behavior of tobacco use among rural population in Dehradun, Uttarakhand. Indian J Comm Health 2015; 27, 1: 30-34.
12. Janice YT, Elisa KT, Ginny G, Tung TN, Mary VM,Ching W et al.Individual and family factors associated with intention to quit among maleVietnamese American smokers: Implications for intervention development. Addictive Behaviors 2011;36: 294–301
13. Surani N S, Gupta P C, Fong T G, Pednekar M S, Quah A C, Bansal-Travers M. Intention to quit among Indian tobacco users: Findings from International Tobacco Control Policy evaluation India pilot survey. Indian J Cancer 2012;49:431-7
14. Robert AS. Impact of pictorial health warning of Tobacco packages on the youths of Manipur, India. International Research Journal of Social Sciences 2016;5(9):11-17
15. Karinagannanavar A, Raghavendra B, Hemagiri K, Goud TG.Awareness about pictorial warnings on tobacco products and itsimpact on tobacco consumers in Bellary, India. Asian Pacific JCancer Prev 2011;12 2485-89.
16. Dimplejit SM, Harinder SM, Karanprakash S. Impact Of Pictorial Health Warning Labels On People Consuming Tobacco Products In Smoking Form. Journal of Advanced Medical and Dental Sciences April 2017; 5(4)
17. Shah VR, Dave VR, Sonaliya KN. Impact of anti-tobacco warning labels on behavior of tobacco users in one of the citiesof Gujarat, India. J Prev Med Hyg 2013; 54:109-113
18. Panda R, Venkatesan S, Persai D, Trivedi M, Mathur MR. Factors determining intention to quit tobacco:exploring patient responses visiting public healthfacilities in India. Tobacco Induced Diseases 2014, 12:1