

Research Article

Tobacco prevalence and usage pattern among Bengaluru urban slum dwellers

C. Althaf Hussain*, Hajira Saba I., Arun Gopi, G. Subramanyam

Department of Community Medicine, Vydehi Institute of Medical Sciences and Research Centre, Bengaluru, Karnataka, India

Received: 19 October 2015

Accepted: 11 December 2015

***Correspondence:**

Dr. C. Althaf Hussain.,

E-mail: dr.althafhussain@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: Tobacco use is one of the important preventable causes of death and a leading public health problem all over the world. Tobacco is killing half of the people who use it. Globally, it kills nearly 6 million people. If current trends continue, by 2030 tobacco use is estimated to kill more than 8 million people worldwide each year. Present study carried out to determine prevalence and pattern of tobacco usage among urban slum dwellers.

Methods: A cross sectional study conducted in urban slum of the urban health training center area of VIMS & RC, Bengaluru. Among adults aged 18 years and above, sample size of 370 selected by simple random sampling and interviewed by using semi structured questionnaire.

Results: Prevalence of current tobacco users is 84.3% of which 28.9% are daily users. The commonest cause for starting tobacco use was due to offering in occasions (31.2%) and for maintenance was addiction (57.4%). Cigarettes (15.1%) and beedis (15.1%) were common smoking forms of tobacco and Betel quid with tobacco (40.3%) and pan masala (28.6%) were most common smokeless forms. Among the subjects 45.7% are exposed to second hand smoke in their homes, 63.2% are aware of health hazards, 95.71% are willing to quit tobacco at some point of time.

Conclusions: Prevalence of tobacco use is high in the urban slums and many more are exposed to second hand smoke. Many want to quit tobacco but are unable to get proper assistance.

Keywords: Tobacco usage, Pattern, Prevalence, Urban slum dwellers

INTRODUCTION

Tobacco use is one of the biggest public health threats the world has ever faced and leads not only to human loss, but also heavy social and economic costs. It is claiming the lives of nearly 5.4 million people a year worldwide.¹ Burden in South East Asia region is one of the highest among WHO regions.¹ Tobacco is one of the major causes of death and disease in India, accounting for nearly 0.9 million deaths and 12 million people fall ill due to tobacco every year.² Nearly 275 million adults (15 years and above) in India (35% of all adults) are users of tobacco, according to the Global Adult Tobacco Survey India, 2009-10.

Tobacco use is a major risk factor for many chronic diseases including lung diseases, cardiovascular diseases and stroke. Among other diseases, tobacco use increases risk for lung and oral cavity cancers.³ Tobacco use accounts for one in six deaths due to non-communicable diseases (NCDs). In India tobacco consumption pushes approximately 150 million people in poverty.³

India is the second largest consumer and third largest producer of tobacco and a plethora of tobacco products are available at very low prices. Tobacco products are made entirely or partly of leaf tobacco as raw material,

which are intended to be smoked, sucked, chewed or snuffed. All contain the highly addictive psychoactive ingredient nicotine. The most prevalent form of tobacco use in India is smokeless tobacco and commonly used products are khaini, gutkha, betel quid with tobacco and zarda. Smoking forms of tobacco used are bidi, cigarette and hookah.²

The urban-slum population has emerged as a new section which is known to fare very poorly on issues related to health.⁴ The proportion of the urban-slum population is also increasing at a rapid rate. In India, 28% of the total population was living in urban areas in 2001, with a future projection of about 38% (535 million) by 2026.⁵ The National Sample Survey (NSS) reported that in India, 1 in 6 urban residents is a slum dweller. In Karnataka 16.43% of urban population lives in slums.⁶ This information is required so as to enable development and implementation of effective intervention strategies. Present study is carried out with objectives to determine prevalence of tobacco usage and patterns among Bangalore urban slum dwellers.

METHODS

This was a community based cross-sectional study conducted in Broadway area of Shivajinagar, a urban slum area of Bengaluru, India during the period of 16 July 2015 to 15 September 2015. Considering the prevalence of tobacco use as 35% among adults, with a relative precision of 5% the minimum required sample size for assessing the prevalence of tobacco use among adults was calculated to be 370. The study included persons 18 years and above, excluded very sick and mentally unsound persons. A simple random sampling procedure was adopted to select 370 families from the house list of the area. Then from every house one person was randomly selected who matched the inclusion and exclusion criteria of the study. After obtaining oral consent and assuring anonymity, data was collected by interviewing the randomly selected participants by house to house survey, using a modified semi-structured questionnaire adopted from GATS (Global Adult Tobacco Survey) questionnaire. Information was collected on their socio-demographic status, tobacco usage and patterns, reasons for their initiation and/or addiction to tobacco and on their knowledge and perception about ill effects of tobacco use. If on the day of interview the selected house had no available member then the next house was taken.

Former consumers of tobacco were taken as those who had stopped tobacco consumption and current users of tobacco were considered as those who were currently using any form of tobacco or had used it within last 15 days of interview.

Data analysis was done in SPSS software version 21 and data were expressed in frequency, percentages and proportions.

RESULTS

The present study included 370 people from a urban slum area of Bengaluru, India and showed that majority (75.5%) of the respondents belonged to 18 to 45 years of age. Among the participants 51.1% were female and 48.9% were male. Majority of the participants had higher secondary education (32.7%) and most of them were employed (63.8%) as shown in Table 1.

The present study showed that among participants 88.4% (90.6% of male and 86.2% of female) has ever used tobacco based products while 11.6% (9.4% of male and 13.7% of females) has never used it . This study shows that 4.0% (3.3% of males and 4.8% of females) were former tobacco users and 84.3% (87.3% of male and 81.5% of female) are current users of tobacco based products (Table 2).

Among participants, currently there are 28.9% (44.7% of males and 13.7% of females) daily users, 4.0% (2.8% of males and 5.3% of females) less than daily users and 51.6% (39.7% of males and 63% of females) occasional users (Table 2).

Regarding pattern of tobacco use, multiple responses were obtained. 28.9% (59.1% of males and none of females) were using smoking form of tobacco. Cigarettes and beedis were the most popular smoking forms. Cigarette users were 15.1% (30.9% of males and none among females) and beedis users were 15.1% (30.9% of males and none of females). 20.3% (41.4% of males) were daily users of smoking form of tobacco (Table 2).

71.9% (57.4% of males and 89.5% of females) were users of smokeless form of tobacco. Betel quid with tobacco and pan masala were the most common smokeless forms of tobacco. 40.3% (12.7% of males and 66.6% of females) were Betel quid with tobacco users and 28.6% (40.3 % of males and 17.4% of females) were pan-masala users. 18.1% (22.6% of males and 13.7% of females) were daily users of smokeless form of tobacco (Table 2).

12.4% (25.4% of males and none of females) were users of both smoking and smokeless forms of tobacco. 9.4% (19.3% of males and none of females) were daily users of both forms of tobacco (Table 2).

The age of initiation in 66.97% of the users was between 21-30 years. Of the current users 27.64% of them are using tobacco products for more than 25 years. 65.57% of the regular users start using TBP's in less than 2 hours soon after waking up from sleep. 91.1% of the users are using less than 5 products per day.

The most common reasons cited by the consumers for the initiation of consumption of tobacco was "offering in occasions (31.2%)" and "peer pressure (20.18%)" whereas, the most common reason cited for maintenance of tobacco use was "addiction" (57.4%), followed by

31.96% of them using tobacco based products just for “liking” it (Figure 1). The reasons cited by never users of tobacco based products are dislike (74.42%) followed by

the reason that they are aware of health hazards (27.9%) (Figure 2).

Table 1: socio-demographic profile and prevalence of tobacco usage among the study respondents.

Characteristics		Total surveyed N (%)	Current users N (%)	Smoking form N (%)	Smokeless form N (%)	Users of both forms N (%)
Age in yrs	18-24	70 (18.9)	50 (13.5)	17 (4.6)	43 (11.6)	11 (2.97)
	25-31	96 (25.9)	85 (22.9)	22 (5.9)	72 (19.4)	8 (2.16)
	32-38	59 (15.9)	50 (13.5)	20 (5.4)	41 (11.0)	10 (2.70)
	39-45	55 (14.8)	52 (14.0)	19 (5.1)	44 (11.8)	10 (2.70)
	46-52	34 (9.2)	32 (8.6)	7 (1.8)	30 (8.1)	5 (1.35)
	53-60	35 (9.4)	31 (8.4)	15 (4.0)	22 (5.9)	2 (0.54)
	>60	21 (5.7)	12 (3.2)	7 (1.8)	14 (3.7)	0 (0)
Sex	Male	181 (48.9)	158 (42.7)	107 (28.9)	104 (28.1)	46 (12.43)
	Female	189 (51.0)	154 (41.6)	0 (0)	162 (43.7)	0
Education	Illiterate	64 (17.3)	51(13.8)	11 (3.0)	51 (13.8)	1 (0.27)
	Primary	55 (14.9)	52(14.0)	26 (7.0)	39 (10.5)	11 (2.97)
	Secondary	63 (17.0)	61(16.5)	21 (5.7)	56 (15.1)	16 (4.32)
	Higher secondary	121 (32.7)	105(28.4)	32 (8.6)	91 (24.6)	14 (3.78)
	PU	42(11.3)	32(8.6)	11 (3.0)	23 (6.2)	3 (0.81)
	Graduate	25 (6.7)	11(2.9)	6 (1.6)	6 (1.6)	1 (0.27)
	PG	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Occupation	Student	12 (3.2)	4 (1.1)	0 (0)	4 (1.1)	0
	Employed	236 (63.8)	209 (56.5)	101 (27.3)	160 (43.2)	46 (12.43)
	Unemployed	1 (0.3)	1 (0.3)	1 (0.3)	0 (0)	0
	Housewife	112 (30.3)	91 (24.6)	0 (0)	98 (26.5)	0
	Retired employee	9 (2.4)	7 (1.9)	5 (1.3)	4 (1.1)	0

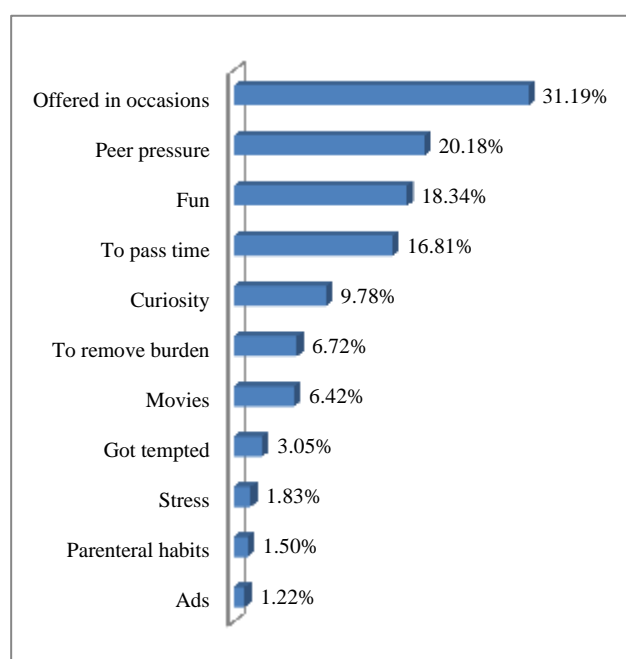


Figure 1: Reasons for initiation of tobacco based products usage among the study respondents.

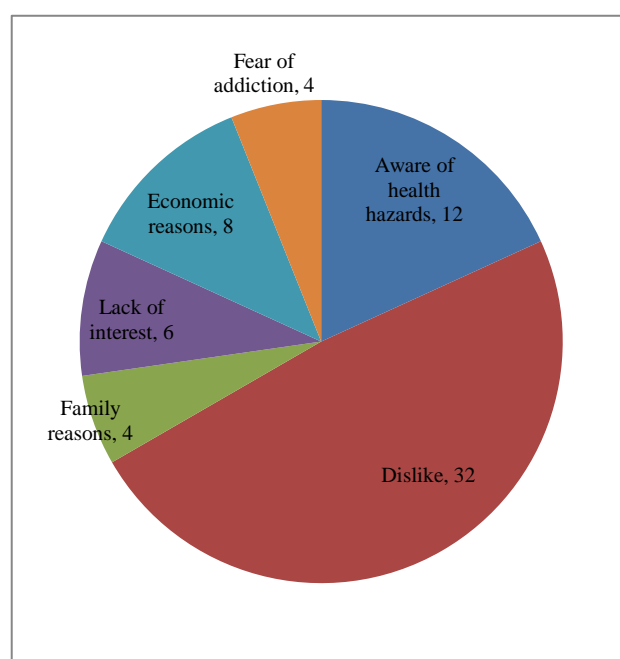


Figure 2: Reason for never using tobacco based products.

Among current users only 0.3% has tried to quit use of tobacco in the past, that too due to family interventions. 91.43% of current users say that they can quit tobacco use if they want and 95.71% of current users have a plan to quit tobacco use in future. 45.7% of the participants are exposed to second hand smoke in their homes. 63.2% of the respondents had knowledge that there are harmful

effects of tobacco use and knew that the consumption of tobacco is leading to serious health problems. 99.1% has seen tobacco products being sold by the street vendors around their dwelling. 99.72% of the participants has noticed information about dangers of tobacco usage or information that encourages quitting in media mostly TV, ads and movies.

Table 2: Prevalence and pattern of tobacco usage among the study respondents.

Tobacco users	Male (n=181) N (%)	Female (n=189) N (%)	Total (n = 370) N (%)
Ever users	164 (90.6)	163 (86.2)	327 (88.4)
Current users	158 (87.3)	154 (81.5)	312 (84.3)
Current Daily users	81 (44.7)	26 (13.7)	107 (28.9)
Current Less than daily users	05 (2.8)	10 (5.3)	15 (4.0)
Current Occasional users	72 (39.7)	119 (63)	191 (51.6)
Daily users of both forms	35 (19.3)	0 (0)	35 (9.4)
Users of both smokeless and smoking forms	46 (25.4)	0 (0)	46 (12.4)
Former users	6 (3.3)	9 (4.8)	15 (4.0)
Non users	17(9.4)	26 (13.7)	43 (11.6)
Pattern of Smoking form of Tobacco			
Users of Smoking form	107 (59.1)	0 (0)	107 (28.9)
Daily users of Smoking form	75 (41.4)	0 (0)	75 (20.3)
Cigarette	56 (30.9)	0	56 (15.1)
Beedi	56 (30.9)	0	56 (15.1)
Pattern of Smokeless form of Tobacco			
Users of Smokeless form	104 (57.4)	162 (89.5)	266 (71.9)
Daily users of Smokeless form	41 (22.6)	26 (13.7)	67 (18.1)
Pan masala	73 (40.3)	33 (17.4)	106 (28.6)
Betel quid with tobacco	23 (12.7)	126 (66.6)	149 (40.3)
Snuff by mouth	0 (0)	3 (1.6)	03 (0.8)
Snuff by nose	1 (0.5)	47 (24.9)	48 (13)
Gutkha	43 (23.7)	1 (0.5)	44 (11.9)
Khaini	0 (0)	2 (1.0)	02 (0.54)

DISCUSSION

The present study revealed that 88.4% participants have ever used tobacco products where as 28.9% were daily users, 4.1% were less than daily users and 51.6% were occasional users. GATS conducted in 2009-10 showed that the prevalence of tobacco use among Indians was 34.6%.⁷

The NFHS3, India conducted in 2005-06 reports the prevalence as 34% and the proportion of male respondents consuming any form of tobacco is 49.9% in urban men and 61.1% in rural men. The prevalence of smoking as reported by the NFHS3 is higher for rural as compared to urban regions.⁸ The NFHS3 was conducted in urban slum populations as well but desegregated data for urban-slums are not available.

The slum population mostly consists of recent migrants from the rural areas and from what we observe they seem to be rapidly taking up the urban culture like smoking cigarettes while still maintaining their rural habits. The risk of the development of certain disorders such as cancer of the oral cavity is known to be particularly high with the use of smokeless tobacco products. Thus the slum population becomes a high risk group for the development of diseases associated both with smoked and smokeless forms of tobacco. The burden imposed by these disorders has the potential to further aggravate the already poor health status of these populations.

Present study revealed that 44.7% male and 13.7% of female are daily users of any form of tobacco, 41.1% of male and 0% female use daily smoking form of tobacco, 22.6% male and 13.7% female use daily smokeless form of tobacco and 19.3% male and 0% female consumed

both forms daily. Similar study by Gupta V et al, showed that among urban slums 48.3% of male and 11.9% of female are daily tobacco users, 40.8% of male and 9.1% female use daily smoking form of tobacco, 10.5% male and 3% female use daily smokeless tobacco, 3.0% male and 0.2% female consumed both forms daily.⁹

In study conducted by Das R et al, showed that the prevalence of tobacco use among urban residents was 61.76% and the most common reason for initiation of tobacco use was “group habit” and the reason for maintenance of its use was “sense of wellbeing”.¹⁰ Present study shows the most common reason for initiation is “offered in occasions” and most common reason for maintenance of its use is addiction.

CONCLUSION

Present study shows that 45.7% of the participants are exposed to second hand smoke daily and also shows that 95.71% of current users have a plan to quit tobacco use in future. Prevention of tobacco use in people appears to be the single opportunity for preventing non-communicable disease in the world today. India needs to adopt a more holistic and coercive approach to fight the problem of tobacco by adopting media awareness, behavior change communication interventional activities and establishing tobacco de-addiction and counselling centres for slum dwellers. Not only the government, but all responsible citizens will need to support the fight against this global epidemic.

ACKNOWLEDGEMENTS

The authors are grateful to the participants, faculty members, post graduates and interns of the vydehi institute of medical sciences and research centre for their cooperation and guidance.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. World Health Organization, Media Centre: Tobacco, Fact Sheet N 339. <http://www.who.int/mediacentre/factsheets/fs339/en/index.html>.

2. Tobacco fact sheet. <http://www.searo.who.int/india/topics/tobacco/en/>.
3. United Nations. Prevention and control of non-communicable diseases: Report of the SecretaryGeneral. Accessed online from October 07, 2015.
4. Agarwal S, Satyavada A, Kaushik S, Kumar R. Urbanization, Urban Poverty and Health of the Urban Poor: Status, Challenges and the Way Forward. *Demo Ind*. 2007;36:121–34.
5. Population projections for India and states 2001-2026: Report of the technical group on population projections constituted by the national commission on population. Office of the Registrar General and Census Commissioner, India. New Delhi. Available from:http://gujhealth.gov.in/basicstatistics/pdf/Projection_Report.pdf.
6. Report of the committee on slum statistics/census, government of India ministry of housing and urban poverty alleviation national buildings organisation New Delhi. Available from http://nbo.nic.in/images/pdf/report_of_slum_committee.pdf
7. GATS fact sheet India: 2009-2010. http://www.who.int/tobacco/surveillance/en_tfi_india_gats_fact_sheet.pdf.
8. National Family Health Survey (NFHS3), 2005-06:India. Volume I. Mumbai: IIPS; 2007. International Institute for Population Sciences (IIPS) and Macro International.
9. Gupta V, Yadav K, Anand K. Patterns of Tobacco Use Across Rural, Urban, and Urban Slum Populations in a North Indian Community. *Indian J Community Med*. 2010;35(2):245-51.
10. Das R, Tripura K, Datta SS, Bhattacharjee P, Majumder M, Singh KM. A cross-sectional study on prevalence and determinants of tobacco use among young and adult males (18-60 years) in a peri-urban area of Agartala, Tripura. *The Health Agenda*. April, 2015;3(2):1-6.

Cite this article as: Hussain CA, Saba HI, Gopi A, Subramanyam G. Tobacco prevalence and usage pattern among Bengaluru urban slum dwellers. *Int J Community Med Public Health* 2016;3:432-6.