

# Pattern of Tobacco consumption among urban slum population in Jammu region: A cross-sectional study

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## ABSTRACT

**Introduction:** Consumption of tobacco leads to a myriad of ill effects among the smokers as well as those in their proximity. The study related to tobacco consumption was conducted among individuals over 15 years of age, residing in urban slums. **Objective:** To assess the pattern of tobacco consumption in urban slum population, using WHO standardized questionnaire which is Global Tobacco Surveillance System (GTSS); questions related to tobacco from the surveys, which are the subset of GATS 2<sup>nd</sup> Edition key questions. **Materials and Methods:** The present study was observational cross-sectional in nature which was conducted over a period of 6 months i.e., from September 2019 to February 2020 in urban slums of Trikuta Nagar, urban health training centre which is a field practice area of Postgraduate Department of Community Medicine, GMC Jammu. The information about the tobacco consumption was gathered by interview sessions after taking consent from all the participants. Totally, 718 individuals were met, out of which, 539 were over 15 years of age and 510 agreed to participate in the study. **Results:** 36% (maximum) belonged to 36-45 year age group and lowest (3%) among individuals >66 years. 48% prevalence of active smoking; maximum indulgence (53%) observed in 36-55 year group. Highest exposure to passive smoking seen in 56-65 year group (75%). 45% prevalence of smokeless tobacco consumption, highest in 56-65 year group (72%), lowest in 15-25 year age group (17%). **Conclusion:** Regular conducting of IEC activities for generating awareness with the strict implementation of tobacco control measures by the government needs to be carried out as urban slum population is a vulnerable group and most susceptible to the vicious cycle of disease and poverty.

**Keywords:** Smokeless tobacco, tobacco consumption, urban slum

## Introduction

Tobacco consumption is related to the myriad of ill effects and has constantly remained the most important avoidable risk for the four classes of NCDs since the beginning. Tobacco consumption leads to around 6 million lives each year and also it leads to more than 5 million of those deaths that are directly related to consumption of tobacco (a figure which is expected to increase the cases to more than 8 million in the year by 2030), while as a result of the non-smokers being exposed to the passive smoking,

the cases rise to over 6 lakh or due to the second-hand smoke.<sup>[1]</sup> Nearly 80% of worldwide smokers which are more than 1 billion live in low- and middle-income countries.<sup>[2]</sup> Globally, the second largest tobacco consumer is India.<sup>[3]</sup> Approximately 71% of all lung cancer due to the consumption of tobacco deaths, also 42% of chronic respiratory disease are due to tobacco consumption and also leads to nearly 10% of cardiovascular disease.<sup>[4]</sup> Nearly 40% of male cancers are due to the consumption of tobacco in India.<sup>[5]</sup>

Due to the epidemic of the tobacco consumption globally, the WHO Framework Convention on Tobacco Control (FCTC) in response was developed. The WHO FCTC and its guidelines purpose is to provide the foundation for countries so that they can implement and manage the control of tobacco, and they also sets the baseline so that they can reduce for both demand for and supply

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Received: 12-07-2020

Revised: 17-09-2020

Accepted: 24-11-2020

Published: 08-04-2021

### Access this article online

#### Quick Response Code:



Website:  
www.jfmprc.com

DOI:  
10.4103/jfmprc.jfmprc\_1428\_20

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**How to cite this article:** Choudhary N, Sangra S. Pattern of Tobacco consumption among urban slum population in Jammu region: A cross-sectional study. J Family Med Prim Care 2021;10:1193-6.

of Tobacco. India has signed Framework Convention for Tobacco Control (FCTC) for halting tobacco consumption in the country.<sup>[6]</sup>

As per Global Adult Tobacco Survey (GATS) 1 (2009-2010) and GATS 2 (2016- 2017) reports, the tobacco use prevalence has declined by 6% from 2009-10 to 2016-17.<sup>[7,8]</sup> The number of tobacco users has declined by about 81 lakh.<sup>[9]</sup>

This study aims to find out the prevalence of consumption of tobacco among the residents of urban slums as it is a vulnerable population that requires higher focus so that policy interventions can be directed towards them.

## Materials and Methods

The present study was community based cross-sectional study which was conducted among individuals living in slums in Trikuta Nagar area, District Jammu. The Trikuta Nagar area, which is a urban field practice area, consisting of urban slums, comes under the postgraduate Department of Community Medicine, GMC Jammu, J&K. The study was conducted after taking the institutional ethical clearance from the GMC Jammu. Trikuta Nagar area consists of sectors 1 to 9 and extension with a population of 16000 (Census 2011) and 14 scattered urban slums with a population of 900 (survey) Date of approval is 20th aug 2019.

A total of 718 individuals could be met, as some households were found to be locked during visits. Out of 718 individuals, 539 belonged to over 15 years of age group (which also includes the geriatric population), out of which 510 agreed to participate in the study. Morning hours of 7-10 am were selected, as after that the labour class move about to carry out their allotted work and students proceed to their study institutions. Time period of the study was 6 months i.e., from September 2019 to February 2020.

Consumption of Tobacco was assessed using Global Tobacco Surveillance System (GTSS); Tobacco question from surveys, a subset of key questions from Global Adult Tobacco Survey (GATS) 2<sup>nd</sup> Edition.<sup>[10]</sup> For the purpose of computing results, tobacco smoking was categorized under smokers, exposure to smoke at home and indoor areas of work have been put under the exposed category of passive smoking and data regarding consumption of smokeless tobacco was also taken. Smokeless Tobacco is the tobacco which is consumed orally, not smoked or burned.<sup>[11]</sup> It includes Paan, betel quid, khaini, gutka, zarda, loose leaf/sada pata/chadha, Gul, Mishri, Mawa, Dhora, etc.<sup>[12]</sup>

Each individual was interviewed in person after taking informed consent from them. Face to face interview sessions were conducted after assuring confidentiality and rapport building. Average time was around 20-30 minutes per person. Data were analyzed in terms of numbers and proportions.

Inclusion criteria—Individuals over 15 years of age and agreeing to participate in the study.

Exclusion criteria—Those not willing to participate in the study and those households which were locked during our 2-3 visits.

## Results

The present study revealed that the maximum numbers of males were in the age group of 36-45 years (35%) and maximum number of female respondents was also in the same age group [Table 1]. Table 2 depicted the sociodemographic profile of the urban slum population which showed that the urban slum population consist of only Hindu and Muslim population. The study revealed that the 59% of families were of joint type. The urban slum population consist of mainly labourers that are the reason their income per month fallen between 5000 and 49,999. The study revealed the status about the active and passive smoking among males and females [Table 3]. The maximum

**Table 1: Age and Sex distribution of individuals residing in slums**

Age group (in years)	Male	Female	Total
15-25	55 (22%)	50 (20%)	105 (21%)
26-35	48 (19%)	53 (21%)	101 (20%)
36-45	88 (35%)	94 (37%)	182 (36%)
46-55	45 (18%)	31 (12%)	76 (15%)
56-65	13 (5%)	19 (7%)	32 (6%)
>66	5 (2%)	9 (3%)	14 (3%)
Total	254 (50%)	256 (50%)	510

**Table 2: Sociodemographic profile of respondents**

	Male n (%)	Female n (%)
Religion		
Hindu	92 (36.22%)	89 (34.76%)
Muslim	8 (3.14)	11 (4.29%)
Christian		
Sikh		
Others		
Type of Family		
Joint		59 (59%)
Nuclear		41 (41%)
Income Per Month (Rs.)		
<5000		5 (5%)
5000-49,999		95 (95%)
50,000-99,999		-
>100000 & above		-
a) Education status		
Illiterate	72	55
Primary	15	16
Middle	9	6
Secondary	9	7
Higher Secondary	4	2
Graduate	3	2
Postgraduate	-	-
Professional	-	-
b) Occupational status		
Working	92	84
Non-working	8	16

**Table 3: Age and Gender wise distribution on the pattern of Tobacco Consumption (Active and Passive)**

Tobacco consumption	Gender		Total n(%)
	Male (n %)	Female (n %)	
<b>Active smoking (Smokers)</b>			
15-25	38 (69%)	9 (18%)	47 (45%)
26-35	28 (58%)	13 (25%)	41 (41%)
36-45	76 (86%)	21 (22%)	97 (53%)
46-55	33 (73%)	7 (23%)	40 (53%)
56-65	4 (33%)	10 (53%)	14 (44%)
>66	4 (80%)	3 (33%)	7 (50%)
	183 (72%)	63 (25%)	246 (48%)
<b>Exposed to Passive Smoking</b>			
15-25	41 (75%)	21 (42%)	62 (59%)
26-35	40 (75%)	21 (40%)	61 (60%)
36-45	79 (90%)	34 (36%)	113 (62%)
46-55	39 (87%)	16 (52%)	55 (72%)
56-65	12 (92%)	12 (63%)	24 (75%)
>66	4 (80%)	5 (56%)	9 (64%)
	215 (85%)	109 (43%)	324 (64%)

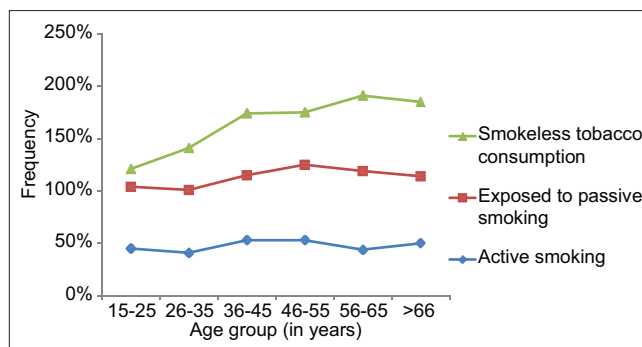
**Table 4: Age in years and distribution according to gender of the respondents due to the consumption of smokeless tobacco**

Age group (in years)	Male n (%)	Female n (%)	Total
15-25	11 (20%)	7 (14%)	18 (17%)
26-35	22 (46%)	18 (34%)	40 (40%)
36-45	79 (90%)	29 (33%)	108 (59%)
46-55	27 (60%)	11 (35%)	38 (50%)
56-65	10 (77%)	13 (68%)	23 (72%)
>66	4 (80%)	6 (67%)	10 (71%)
	153 (60%)	74 (29%)	227 (45%)

number of active smokers was among the age group of 36-45 and 46-55 years. Maximum (64%) of the urban slum population exposed to passive smoking and 48% exposed to active smoking Figure 1 revealed that the frequency of smokeless tobacco consumption was maximum and increasing among the elderly age groups than passive and active smoking. Table 4 revealed that the maximum number (45%) of urban slum population exposed to smokeless tobacco with maximum number of population were in the age group of 56-65 years with increase in the number of male population.

### Discussion

Tobacco cessation activities need to be enhanced both through education like IEC activities and through mass media because it is the major prevailing health problem. The education about the prevailing health problem and how to prevent and control them is one of the first and foremost elements of primary health care. One of the recent study also reported that the repeated IEC activities and mass media played a major role in improving the willingness of tobacco smoker to quit the smoking.<sup>[13]</sup>



**Figure 1: Pattern depicting frequency of active smoking, exposed to passive smoking and consumption of smokeless tobacco**

In our cross sectional study, 510 slum dwellers were interviewed. Percentage of female respondents was slightly higher than males. One of the studies also mentioned the same finding and that the main focus of the study was on women and girl’s health so that the national targets for tobacco control under the National health policy, 2017 and the Sustainable Development Goal 3 about the health should be achieved.<sup>[14]</sup> Maximum percentage of individuals belonged to the 36-45 year age group. Literacy rate in our study sample was 39% but the contradictory results were obtained from other studies.<sup>[15]</sup> Maximum individuals belonged to Hindu religion. 35% individuals were working. Overall prevalence of smoking in our study was 48%, which was higher than as reported by India, Indonesia.<sup>[8,16]</sup> However, the results are comparable to reported by some.<sup>[17]</sup> Maximum percentage (86%) of active tobacco smoking was observed in the 36-45 year age group, which is in line with other studies.<sup>[18]</sup> Overall prevalence of the consumption of smokeless tobacco in our study was 45% which is higher than reported by others.<sup>[19]</sup> Although, two times higher prevalence is seen among males as compared to females (60% vs. 29%); but females too indulge in the consumption of smokeless tobacco in a considerable amount, which is line with other studies.<sup>[20]</sup>

This study is bound with certain limitations like results obtained should be cautiously generalised for the whole population as the sample size is small, it gives a snapshot of the problem in only one point in time as the design is cross sectional, underreporting of smoking can’t be ruled out as some individuals (esp. females) might not have admitted to the consumption of tobacco due to its social unacceptability.

### Conclusion

Overall, in the present study the tobacco consumption was significantly prevalent and also the prevalence was much higher than the figures which were nationally reported. Targeted interventions like regular conducting of IEC activities for generating awareness with the strict implementation of tobacco control measures by the government needs to be carried out in the urban slum areas as it is a vulnerable population and most susceptible to the vicious cycle of disease and poverty.

## Acknowledgment

We sincerely thank all the participants in the study for their cooperation.

## Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

## Financial support and sponsorship

Nil.

## Conflicts of interest

There are no conflicts of interest.

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