



Original Research Article

INSIGHT ON TOBACCO ABUSE AND PERCEPTION TOWARDS PRICE INCREASE OF TOBACCO PRODUCTS AMONG ADULTS OF LUCKNOW DISTRICT

Avi Singh¹, Beena Sachan², Shekhar Srivastava³, Shweta Rajpal⁴, Syed Abid Asghar⁵, Zeashan H Zaidi⁶

^{1,5,6}Assistant Professor, Department Community Medicine, Era's Lucknow Medical College & Hospital, India.

²Professor (Junior Grade), Department of Community Medicine, Dr. Ram Manohar Lohia Institute of Medical Sciences, Lucknow, India.

^{3,4}Associate Professor, Department Community Medicine, Era's Lucknow Medical College & Hospital, India.

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Corresponding Author:

Dr. Beena Sachan,
Professor (Junior Grade), Department
of Community Medicine, Dr. Ram
Manohar Lohia Institute of Medical
Sciences, Lucknow, India.
Email: beenasachankgm@gmail.com

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ABSTRACT

Background: Tobacco use is the single leading cause of preventable death globally, killing millions of people annually, more than HIV/AIDS, tuberculosis, and malaria. Tobacco kills 0.8-1.0 million people each year in India and most of these deaths occur in people who are young. India is one of the fewer countries in the world where prevalence for smoking and smokeless tobacco use is high as well as characterized by dual use of tobacco use of both smoking and smokeless tobacco products also contributes to a noticeable proportion.

Materials and Methods: This is a descriptive cross-sectional study on pattern of tobacco abuse among the selected population regarding socio-demographic characteristics and their views about the pricing of tobacco products. Study unit was people of either sex, of more than 18 yrs and less than 60 yrs in age residing in Lucknow district and after applying multi-stage random sampling, 640 subjects were selected.

Results: the prevalence of tobacco abuse in the urban area was 36.0 %, while 4.3 % were past users whereas in rural areas prevalence of tobacco abuse was found to be 54.1% while 11.9 % were past users (p=0.001). Age groups <30 yrs and 46-60 yrs had a greater proportion of subjects abusing tobacco products compared with the age group 30-45 yrs. There was a significant association between sex and tobacco abuse (p<0.001) in both urban and rural areas.

Conclusion: It was observed that the prevalence of tobacco abuse was at a significant level, however as per latest GATS-2 findings overall consumption of tobacco products has fallen in both urban and rural India. Stricter tobacco sale and taxation laws needs to be reviewed for a tobacco free society.

Keywords: Tobacco, smoking, smokeless, GATS, taxation.

INTRODUCTION

Tobacco use is the single leading cause of preventable death globally, killing millions of people annually, more than HIV/AIDS, tuberculosis, and malaria.^[1] Tobacco smoking remains a significant public health concern worldwide, pneumonic disease, different types of cancer, including respiratory, digestive, and genitourinary systems, and some forms of leukemia, and premature death.^[2] It is estimated that tobacco will kill 10 million people per year in the next decade

with 70% of deaths occurring in developing countries according to WHO. Tobacco kills 0.8-1.0 million people each year in India and most of these deaths occur in people who are young.^[3] India is one of the fewer countries in the world where prevalence for smoking and smokeless tobacco use is high as well as characterized by dual use of tobacco use of both smoking and smokeless tobacco products also contributes to a noticeable proportion.^[4] tobacco is used in many forms like cigarettes, bidis in smoking form or as guthka, paan masala, khaini or gul in smokeless form in India. Apart from it being a

developing country and having economic disparities, the pricing of tobacco products plays a massive role in its consumption.^[5] Through this research, we intend to study the prevalence of tobacco uses in Lucknow district and the effect of price fluctuations of tobacco products.

MATERIAL AND METHODS

This was a descriptive cross-sectional study carried out in the rural and urban field practice area of our Rural and Urban Health training center. In the present study, the pattern of tobacco abuse among the selected population regarding socio-demographic characteristics and their views about the pricing of tobacco products were assessed. Study unit was people of either sex, of more than 18 yrs and less than 60 yrs in age residing in Lucknow district. Standard case definitions were used to describe Current smoking, Former tobacco users, never used tobacco and second-hand tobacco abuse^[6]. Multi state random sampling technique was used to select study units (Annexure 1), and a total of 640 subjects were selected and divided into urban (422) and rural (218) as per census of India 2011^[7]. Descriptive statistical analysis was done on all variables. All data were analyzed using the MS Office Excel software & SPSS 24 for Windows. In describing data, descriptive statistical analysis was employed with frequency and percentages. The protocol of the study was cleared for ethics by the Research Institutional Review Board.

RESULTS

Annexure-1

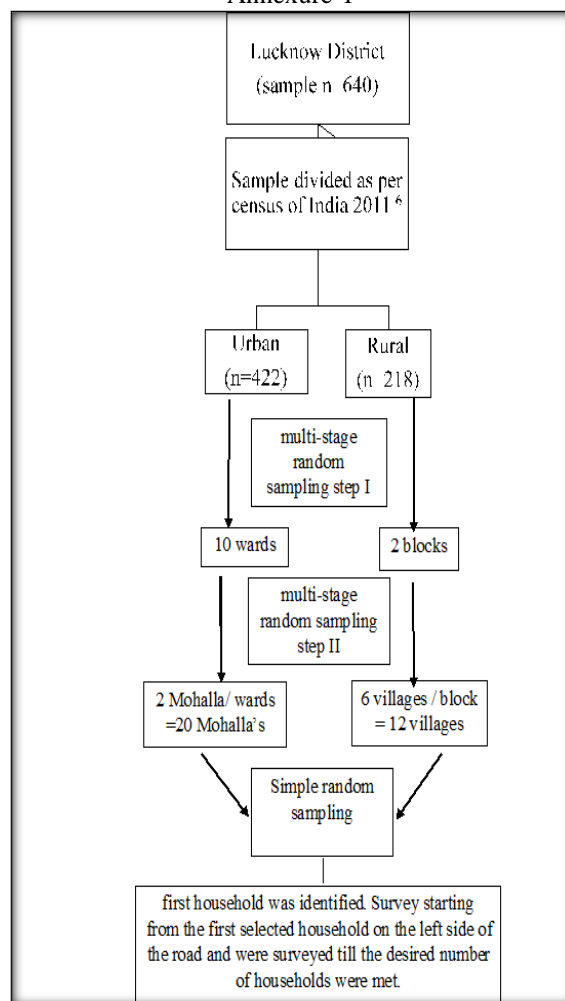


Table 1: Demographic distribution of selected subjects

Place	No.	%
Urban	422	65.9
Rural	218	34.1
Total	640	100.0

Table 2: Distribution of tobacco abuse with respect to place

Use of Tobacco Product	place		Total (N=640)	Chi sq	p-value
	Urban (N=422)	Rural (N=218)			
Used in Past	18 (4.3)	26 (11.9)	44 (6.9)	42.188	<0.001
Using Currently	152 (36.0)	118 (54.1)	270 (42.2)		
Never Used	252 (59.7)	74 (33.9)	326 (50.9)		

Table 3: Type of Tobacco Product Currently being used

Type of Tobacco Product Using	Place		Total (N=270)	chi sq	p-value
	urban (N=152)	rural (N=118)			
Smoke Product	70 (46.1)	39 (33.1)	109 (40.4)	43.714	<0.001
Smokeless Product	33 (21.7)	69 (58.5)	102 (37.8)		
Both	49 (32.2)	10 (8.5)	59 (21.9)		

Table 4: Association of Tobacco Abuse with Bio-Social Characteristics in Urban & Rural Areas

Variable	Urban				Rural				
	No. (N=422)	Current Users (No=152)	Chi Sq	p-value	No. (N=218)	Current Users (No=118)	Chi Sq	p-value	
Age Group									
< 30 yr	No.	72 (66.1)	30 (41.7)	18.53	.001	37 (33.9)	19 (51.4)	9.35	.009

30 - 45 yr	No.	213 (74.0)	56 (26.3)			75 (26.0)	31 (41.3)		
46 - 60 yr	No.	137 (56.4)	66 (48.2)			106 (43.6)	68 (64.2)		
Sex									
Male	No.	246 (62.0)	126 (51.2)	59.14	<0.001	151 (38.0)	102 (67.5)	35.64	<0.001
Female	No.	176 (72.4)	26 (14.8)			67 (27.6)	16 (23.9)		
Religion									
Hindu	No.	276 (68.7)	94 (34.1)	6.36	.095	126 (31.3)	58 (46.0)	7.88	.005
Muslim	No.	129 (58.4)	55 (42.6)			92 (41.6)	60 (65.2)		
Sikh	No.	5 (100)	0 (0.0)			0 (0.0)	-		
Christian	No.	12 (100)	3 (25.0)			0 (0.0)	-		
Caste									
General	No.	112 (91.1)	42 (37.5)	6.68	.035	11 (8.9)	7 (63.6)	.53	.769
SC	No.	29 (61.7)	4 (13.8)			18 (38.3)	9 (50.0)		
OBC	No.	281 (59.8)	106 (37.7)			189 (40.2)	102 (54.0)		

Table 5: Distribution of Opinion about Smoking Perception associated with Tobacco Abuse among General Population

Place		urban (N=414)	rural (N=218)	Total (N=632)	chi sq	p-value
price increase affects perception towards government						
No	No.(%)	4 (1.0)	2 (0.9)	6 (0.9)	1.105	0.575
Yes	No.(%)	204 (49.3)	117 (53.7)	321 (50.8)		
Can't say	No.(%)	206 (49.8)	99 (45.4)	305 (48.3)		
perception towards government if price increased						
Positive towards govt initiative	No.(%)	210 (50.7)	115 (52.8)	325 (51.4)	4.084	0.130
Negative towards govt initiative	No.(%)	7 (1.7)	9 (4.1)	16 (2.5)		
No opinion	No.(%)	197 (47.6)	94 (43.1)	291 (46.0)		

DISCUSSION

A total of 640 adults were selected randomly from Lucknow district, out of which 422 (65.9%) were selected from an urban area and the remaining 218 from a rural area; the percentage here is 34.1%. (Table-1). In the present study, it was shown that the prevalence of tobacco abuse in the urban area was 36.0 %, while 4.3 % were past users. (Table-2). In the rural area, the prevalence of tobacco abuse was found to be 54.1%. Apart from this 11.9 % were past users. So, the significant difference was present in prevalence of tobacco abuse between urban & rural areas ($p < 0.001$). Overall, the prevalence of Tobacco abuse was found to be 42.2 % apart from this 6.9 % were past users. The results of the present study are in accordance with other studies done by Khandker N et al,^[8] where the prevalence of tobacco use was 35%, Palipudi K et al,^[9] where the overall prevalence was found to be 34.6%, and Agrawal S et al,^[10] where the prevalence was found to be 52%. It was also observed that the result of our study was in line with that of GATS-1 whereas when compared to GATS-2 we observed a higher prevalence of tobacco abuse.^[11]

We also found that among the current tobacco users in the urban area, 46.1% were using smoking products and 21.7% were using smokeless products, while 32.2% of the abusers were using both forms of tobacco. Among current tobacco users in the rural area, 33.1% were using smoking products and 58.5% smokeless products, while 8.5% were using both forms. Thus, we noted a significant difference in the type of tobacco abuse between urban & rural areas ($p < 0.001$). A similar pattern of tobacco abuse among rural and rural areas was observed in Bhawna G,^[12] wherein a similar pattern of tobacco abuse was noted. Similar results were also seen by

Gupta V et al,^[13] and Muhammad T et al,^[14] who also observed the pattern of tobacco abuse among rural and urban areas to be the same. However, in contrast to our study, the above-mentioned studies have observed that there was a higher prevalence of tobacco abuse in rural areas as compared to urban areas. It was also observed in our study that in an urban area, age and tobacco abuse showed a significant association i.e. $p = 0.001$. (Table-4)

Age groups <30 yrs and 46-60 yrs had a greater proportion of subjects abusing tobacco products compared with the age group 30-45 yrs. In the rural areas, there was also great association between age and tobacco abuse at $p = 0.009$ in the same age group categories. There was a significant association between sex and tobacco abuse ($p < 0.001$) in both urban and rural areas where males were abusing tobacco more than their female counterparts (51.2% vs 14.8% in urban, 67.5% vs 23.9% rural). The association was also found to be significant between caste and tobacco abuse ($p = 0.035$). Sagotra A et al,^[15] in their study also saw that tobacco consumption was more in males. Kahar P et al,^[16] also showed a gender disparity in tobacco prevalence with greater use among males. Prasad JB et al,^[17] also reported that the association of sex and tobacco abuse was significant, as males abused tobacco more than females; the prevalence of tobacco consumption among other castes was higher than those from general caste. It was observed in our study (Table-5) that, 50.8% of the respondents agreed that price increase affects perception towards the government, whereas 51.4% agreed that there is positive perception towards the government if the prices increase.

Though there was no significant finding, it was observed by Joseph RA et al,^[18] that higher prices of tobacco have some deterrent effect on its

consumption, particularly in youths. Also, a systematic review conducted by Nazar GP et al,^[19] observed an inverse relationship between tobacco pricing and its consumption. It also mentioned that higher pricing of tobacco products was more detrimental to the non-affluent group compared to an affluent group.

CONCLUSION

The present study was undertaken with the objective of finding out the prevalence of tobacco abuse and assessing the response of the study subjects toward pricing of tobacco products. Though we observed that the prevalence of tobacco abuse was at a significant level, there was some solace in taking aboard the latest GATS-2 finding that overall consumption of tobacco products has fallen in both urban and rural India. Though we have still a long way to go for this tobacco-free society, it is possible to achieve this target in the near future by proper regulation and motivation.

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