



Prevalence of Consumption of Tobacco/Tobacco-Products and Association with Educational Status among Patients from Rural-Urban Areas of Jaipur District in Rajasthan – A Cross Sectional Study

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ABSTRACT

BACKGROUND: Tobacco consumption is a major Public Health issue due to its high risk and in view of its high prevalence especially in rural sector with poor financial background and poor literacy. This epidemic needs to be prevented. The Objective of this study was to find the prevalence and various ways of tobacco consumption and its association with educational status among patients of above 15 years of age from rural and urban background in Jaipur district (Rajasthan).

MATERIAL AND METHODS: A cross sectional study was carried out among 500 patients above 15 years of age at tertiary centre located in outskirts of Jaipur with high drainage area from all around villages as well. Pretested questionnaire was used for interview and collecting relevant data after obtaining informed consent. Data on socio-demographic profile, family members and their tobacco habits were collected.

RESULTS:- The data on complete information on age, gender, various patterns of tobacco consumption and the motivation factors of starting tobacco consumption were analysed. Out of total 500 patients in the age group of >15 years, 297 were from rural area [M-171, F-126] and 203 from urban area [M-109, F-94]. The overall tobacco consumers were 56% (69.28% in male and 39.9% in females). In rural area the prevalence of tobacco consumption was much higher with 76.02% in males and 47.6% in females than that of in urban areas with prevalence of 58.7% and 27.65% respectively in males and females. In both rural and urban areas the prevalence was in increasing trend with advancement of age. Also prevalence was higher in persons of low educational status. The highest trend of tobacco use was smoking (biris, chillum, hookah) while the main trend of smokeless use was in Pan, Gutkha and Khaini).

CONCLUSION:- Tobacco consumption was highly prevalent in rural area and more so in persons with low literacy level as well as in those whose senior family members were also tobacco consumers. Hence it initiates an action to prevent tobacco consumption, especially among low literate and adolescents by means of increasing awareness of risk of tobacco and to improve their literacy level.

KEYWORDS: Pure Smokers, Smokeless Smokers, Socio-economic Literacy Levels.

INTRODUCTION

The rising trend of tobacco consumptions, especially in developing countries is a cause of concern and it threatens to weaken the physical and mental health and retards the social and economic progress. Tobacco use is the leading cause of preventable death. In India, it is responsible for half of all the cancers in men and quarter of all cancers in women. It is also a major risk factor for cardiovascular diseases and COPD's. Forms of tobacco chewing include Paan (betel leaf with areca nut, catechu and lime), Gutkha(Pan Masala), and Mishri (Powdered tobacco rubbed over gums). In India approximately 9-10 lakh people die every year due to tobacco related disorders.

This tobacco epidemic needs to be prevented. The WHO predicts that tobacco deaths in India may exceed 1.5 million annually by year 2020, however considerable research is required to comprehend the actual trends. Nationally, the representative and reliable prevalence data on tobacco consumption are scarce. Similarly, the socio-economic predictions of tobacco smoking and chewing are poorly understood. Also the wide inter-regional variation in prevalence has been reported and varies with age, gender, culture, religion, socio-economic status, family background and educational status. Thus the aim of this study was to access the prevalence of consumption of tobacco or tobacco related products and association with educational status among patients from Urban- Rural areas of Jaipur district of Rajasthan.

MATERIAL AND METHOD

After obtaining prior approval from institutional Ethical Committee, A hospital based cross sectional study using, convenient sampling was conducted on patients(indoor as well as outdoor patients in OPD) reporting from Rural as well as Urban sectors in department of Medicine of tertiary Hospital which is located in outskirts of Jaipur City and surrounded by large number of villages. The study population comprised of all

above the age of 15 onwards. Patients not willing to participate were excluded in the study. Data were collected by interviewing all eligible subjects using pretested questionnaire. For the educational status of participants, they were classified in to 4 groups that is illiterate (those who could not read and write), up to primary school, up to 12th (CBSE) and higher level.

RESULTS

Total 500 subjects in the age group about 15 years were included in the study out of them 297 were from rural area (Male 171, F 126) and 203 from urban area (M 109, F 94). Overall tobacco consumers were 56% (69.28% in males & 39.09% in females) with male preponderance. In rural areas out of total 171 males, 130 (76.02%) were tobacco consumers and in females out of 126 the 60 (47.6%) were tobacco consumers, while in urban area it was 64 (58.71%) out of 109 males & 26 (27.65%) out of 94 females (Table 1). Thus there was high prevalence of tobacco consumers in rural areas in both males and females compared to that of in urban area.

Among age wise distribution of subjects in rural area it was 26.08% in age group 15-19 years, 36.36% in 20-34 years, 64.93% in 35-49 years age and 88.33% in age group of > 50 years while in urban area the corresponding values were 19.23% 35%, 49.18% and 60.71% respectively. Thus in all age groups, the prevalence of tobacco users in rural areas were more than that of in urban areas. (Table 2, 3).

In rural area the % of pure smokers was 2.1%, 5.8%, 9.5% and 16.3% in age group of 15-19, 20-34, 35-49 & >50 years. Among pure smokeless users it was 0.5%, 2.1%, 3.7% and 8.9% while the combined users were 0.5%, 6.8%, 13.2% and 31.6% in the corresponding age groups (Table 4). While in urban area pure smoker users were 3.3%, 15.6%, 12.2% and 17.8 in age group of 15-19 years, 20-34 years 35-49 years and above > 50 years. Pure smokeless users were 0%, 2.2%, 3.3% and 8.9% and combined users were 2.2% 5.5% 17.8% and 11.1% in corresponding age group

(table 5) revealing that the prevalence of pure smokers was high in rural areas in all age group compared to that of urban area while the prevalence of smokeless users was almost same. The prevalence was progressively on higher side with increasing age in both rural as well as urban areas (Table 4 & 5).

In rural areas among smokeless users the maximum trend was of Gutkha use followed by pan and then khaini while in urban area the pan

eaters were maximum followed by gutkha & than khaini (diagram 6).

The prevalence of smoking was higher in persons of low educational status & in rural areas it was maximum in illiterate group & least in higher educational group (Table 7) in both male and females. While in urban area the prevalence was maximum in higher educational level & higher schooling level in females and the trend was maximum in higher schooling age group in males.

TABLE 1

	RURAL		URBAN		
	MALE	FEMALE	MALE	FEMALE	
SMOKERS	130	60	64	26	280
NON-SMOKERS	41	66	45	68	220
TOTAL	171	126	109	94	500

TABLE 2,3 : DISTRIBUTION OF STUDY OF SUBJECTS AND PERCENTAGE OF TOBACCO CONSUMPTION AS PER THE AGE GROUP

	AGE(IN YEARS)	NON-SMOKERS	SMOKERS	TOTAL	%AGE
	20-34	49	28	77	36.36%
	35-49	27	50	77	64.93%
	>50	14	106	120	88.33%
URBAN	15-19	21	5	26	19.23%
	20-34	39	21	60	35%
	35-49	31	30	61	49.18%
	>50	22	34	56	60.71%

TABLE 4,5 : AREA WISE DISTRIBUTION OF TYPE OF TBACCO USE

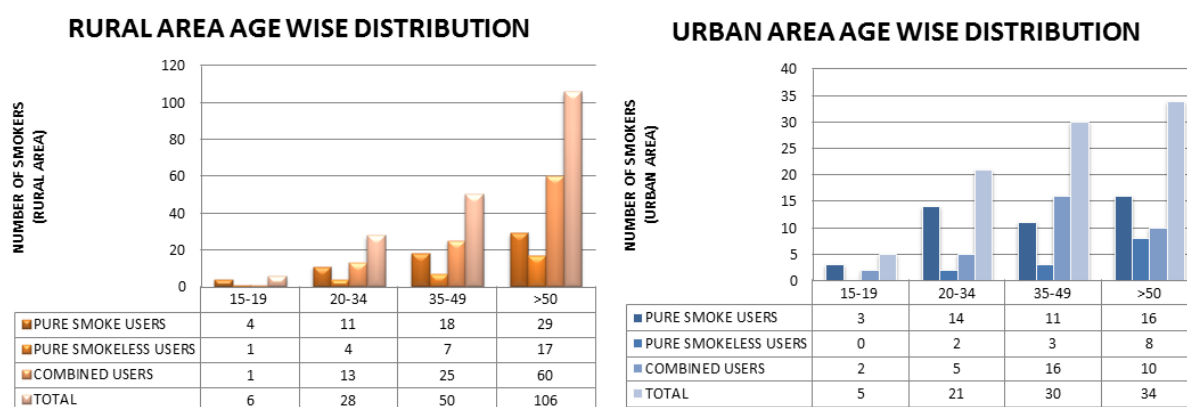


DIAGRAM 6

TYPE OF SMOKELESS USERS

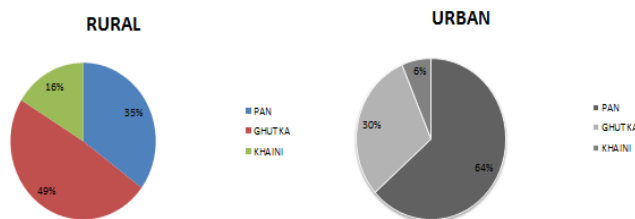
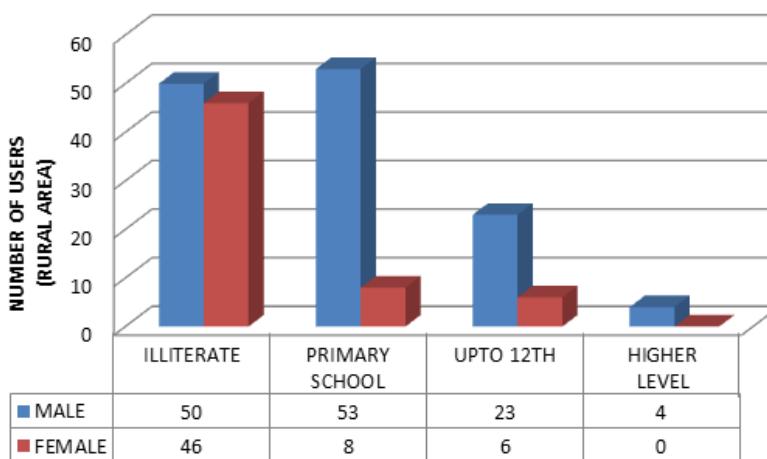


TABLE 7 DISTRIBUTION OF SMOKERS AS PER EDUCATIONAL STATUS



DISCUSSION

It was observed in this study that among 500 total volunteers (combined from both rural and urban areas) from Medicine OPD/IPD, the overall prevalence of tobacco consumption was 56% with male preponderance in both rural as well as urban areas. In rural areas both in males as well females the prevalence rate was much higher than in urban area.

GAT S-3 (Global adult tobacco survey) India 2009-10 had revealed that more than one third (35%) of adults in India use tobacco in some form or other with wide variation across different regions and states (highest prevalence in east 45%, North east 40%, north 19%), the children were mainly influenced by smoking habits of their family members.

However in our study we have observed that the prevalence is much higher in Jaipur district of Rajasthan (56%). It was also observed that in both rural and urban areas the prevalence was directly associated with advancement of age but was

inversely associated with educational level which was also found by Jindaletal. in their study. It was also observed from among tobacco users that about 21.78% smoker learned and adopted tobacco use from family members, 17.85% from close friends, 28.57% from others of society, 17.85% were self-motivated with the intention to get relaxation, have fun, and feel good to pass time, to solve their personal problems for the sake of status symbol. 13.92% could not give any specific reason. The prevalence of pure smoke users were more than smokeless users in both rural & urban areas. Among smokeless users in both rural & urban areas among smokeless tobacco users, the pan users were maximum, followed by gutkha and least as khaini/Mishri users in urban areas while in rural area maximum were gutkha users followed by pan and then khaini/mishri.

CONCLUSION

In our study the tobacco consumption was more in males than in females & it was more in rural area than urban. It also showed a rising trend with increasing age but decreasing trend with increasing educational level except in females in urban are where the smokers prevalence was more in higher education levels. It invites an action to prevent tobacco consumption especially among illiterate/adolescents level by means of increasing awareness and improvement in their educational status so as to reduce morbidity and mortality.

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