



# STUDY OF TOBACCO CHEWING AND SMOKING PATTERN AND ITS SOCIO-DEMOGRAPHIC DETERMINANTS IN A TRIBAL VILLAGE IN MANDLA DISTRICT, MADHYA PRADESH

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## ABSTRACT

**Introduction:** Tobacco chewing and smoking are considered serious public health problems in many countries including India because of the associated health hazards hence this study done to know the extent and pattern of tobacco and smoking use and its socio-demographic variables in rural tribal village.

**Material and methods:** A community based cross-sectional study was carried out in a tribal village, during the month of October 14 to January 15 in 4 month duration. 214 persons were interviewed by house to house visits with a pre-tested oral questionnaire method. Data were entered in excel and analyzed by SPS-14.

**Results:** Tobacco chewing was slightly more among females (37.4%) as compared to males (34%) while it was just opposite for smoking none of the female in the village reported smoking while it was 5% among males. Mean age for initiation of tobacco chewing was  $11.5 \pm 5.6$ SD for males and for females  $9.6 \pm 7.9$ SD and for smoking mean age of initiation among males was 16.7. Most common form consumed was tobacco followed by Pan Supari tobacco.

**Conclusion:** In rural areas especially in tribal villages people are very much addicted to tobacco chewing so there is need to conduct effective interventions to control tobacco use.

**Keywords:** Age, prevalence, smoking, tobacco, chewing,

## INTRODUCTION

Tobacco chewing and smoking are considered serious public health problems in many countries including India because of the associated health hazards.<sup>1</sup> Smoking causes a vast spectrum of diseases, many of which could result in death.<sup>2</sup> Over 50 diseases are caused, increased or exacerbated by smoking.<sup>3</sup> Worldwide, about one-fifth of all deaths attributed to tobacco occur in India, i.e. more than 8,00,000 people die and 12 million become ill as a result of tobacco use every year. The deaths attributed to tobacco in India are expected to rise from 1.4% of all deaths in 1990 to 13.3% in 2002.<sup>4</sup>

Globally, approximately, 47% of men and 12% of women smoke. Available data suggest that in de-

veloping countries, 48% of men smoke compared with 7% of women, while in developed countries, 42% of men and 24% of women smoke.<sup>3</sup> As almost 70% of the people live in rural India, there is a need to know the prevalence of tobacco and smoking use in these areas to plan for educational efforts directed towards this group. Cessation of tobacco and smoking may result in reduced incidence of cardio-vascular, pulmonary or malignant diseases, and prevent substance-induced problems hence this study done to know the extent and pattern of tobacco and smoking use and its socio-demographic variables in rural tribal village.

## MATERIAL AND METHODS

A community based cross-sectional study was carried out in a tribal village Meeratola ,PSM Department, NSCB Medical College, Jabalpuur, during the month of October14 to January 15 in 4month duration. Institutional ethical clearance was obtained prior to the study.

As per census 2010 population of village was 214 and all the 100% villagers were approached by house to house visits thus total of 214 villagers were interviewed. Study was conducted by personal house-to-house visits with a pre-tested oral questionnaire method.

The data were collected on socio-demographic profile, occupation and literacy status of each member of family. Data were also collected on use of tobacco, age at initiation, amount and years of consumption,ex smokers ex chewer, smoking. Tobacco consumption was broadly classified into three categories: chewing and more than one form of tobacco use PST that is pan supari tobacco, smoking, Tobacco smoking includes cigarettes, beedis and others such as hookah, chillum, ganja, *etc*. Smokeless tobacco use includes Gutka, Khaini and Zarda. Ex chewer and ex smokers were those who left the addiction habits and presently not consuming it in any form.

Data were entered in excel and analyzed by SPS-14 Percentage proportions, mean, simple and two way cross tabulations , chi-square test were applied to find significance

## RESULTS

In our study, 59.04% were male and sex ratio of village was 963. 26.2% of the population was adolescent in village and 7.9 % were elderly 60 and above. 43.1% families were nuclear and 56.9% were joint. 81.8%people of village were non-vegetarian. Tobacco chewing was slightly more among females (37.4%) as compared to males (34%) while it was just opposite for smoking none of the female in the village reported smoking while it was 5% among males. Regarding age maximum use was prevalent in 60 and above age group for tobacco while it was between 50-60 in smoking. Mean age for initiation of tobacco chewing was 11.5±56SD for males and for females 9.6±79SD and for smoking mean age of initiation among males was between age 16.7. Most common form consumed was tobacco followed by Pan Supari tobacco and in smoking 80 % population smoke bidi. Tobbaco chewing was started as earlier as 10 yr of age group for18 % population while smoking was started at 10-19 yrs of age group.

**Table 1: Distribution of study subjects according to socio-demographic profile**

Socio-demographic profile	Frequency (%)
Sex	
Male	109(50.9)
Female	105(49.1)
Age	
0-9	39(18.2)
10-19	56(26.2)
20-29	38(17.8)
30-39	26(12.1)
40-49	21(9.81)
50-59	17(.94)
60 and above	17(7.95)
Educational status	
Illiterate	75(35)
Literate	139(65)
Occupation	
Labour/farmer	77(36)
Student	73(34.1)
Service/Profession	7(3.27)
Housewife	33(15.4)
Unemployed	24(11.2)
Socioeconomic class	
<836	176(82.2)
836-1670	18(8.41)
1671-2785	17(7.94)
2786-5570	3(1.4)
Family type	
Nuclear	94(43.9)
Joint	120(56.1)
Family size	
4 or less	46(21.5)
More than 4	168(78.5)
Dietary habit	
Vegetarian	39(18.2)
Non vegetarian	175(81.8)

Most common form of tobacco used was tobacco only in 80% population and 10 % use it in PST .Other forms reported to used by villagers were nasbar and gudaku.Both Tobbaco chewing and smoking were more prevalent among illiterate. Tobacco chewing 56% as compared to 25.2% among literate while smoking 6.7% among illiterate it was 0.72 among literate but education status was found to be significantly associated with both tobacco chewing and smoking.

When tobbaoco chewing pattern according to occupational status was it was most prevalent among housewife females(67.7%) followed by farmers and labourer 59.8% while smoking was most prevalent among farmers and labour 7.8% and occupation was found to be significantly associated with both tobacco chewinessg and smoking. Both of these addiction were more common in joint families and non vegetarian villagers but no significant association was found for tobacco chewing and smoking type off families and dietary habit.

**Table 2: Distribution of study subjects according to addiction habit**

Attribute	Toobaco chewing (%)		P value	Smoking (%)		P Value
	Yes (n=77)	No (n=137)		Yes (n=6)	No (n=208)	
Gender						
Male	38 (34.86)	71 (65.1)	0.728	6 (5.50)	103 (94.50)	0.01*
Female	39 (37.14)	66 (62.9)		0 (0.00)	105 (100.00)	
Age in yrs						
0-9	0 (0.00)	39 (100)	-	0 (0.00)	39 (100.00)	-
10-19	4 (7.14)	52 (92.9)		0 (0.00)	56 (100.00)	
20-29	17 (44.74)	21 (55.3)		0 (0.00)	38 (100.00)	
30-39	17 (65.38)	9 (34.6)		0 (0.00)	26 (100.00)	
40-49	15 (71.43)	6 (28.6)		1 (4.76)	20 (95.24)	
50-59	9 (52.94)	8 (47.1)		3 (17.65)	14 (82.35)	
60-69	11 (91.67)	1 (8.33)		1 (8.33)	11 (91.67)	
>70	4 (80.00)	1 (20.00)		1 (20.00)	4 (80.00)	
Educational status						
Illiterate	42 (56.00)	33 (44.00)	0.000*	5 (6.67)	70 (93.33)	0.01*
Literate	35 (25.18)	104 (74.82)		1 (0.72)	138 (99.28)	
Occupational status						
Labour/farmer	46 (59.74)	31 (40.26)	0.000*	6 (7.79)	71 (92.21)	0.437
Student	4 (5.48)	69 (94.52)		0 (0.00)	73 (100.00)	
Service/Profession	4 (57.14)	3 (42.86)		0 (0.00)	7 (100.00)	
Housewife	22 (66.67)	11 (33.33)		0 (0.00)	33 (100.00)	
Unemployed	1 (4.17)	23 (95.83)		0 (0.00)	24 (100.00)	
SES						
<836	63 (35.80)	113 (64.20)	0.402	5 (2.84)	171 (97.16)	0.754
836-1670	8 (44.44)	10 (55.56)		0 (0.00)	18 (100.00)	
1671-2785	4 (23.53)	13 (76.47)		1 (5.88)	16 (94.12)	
2786-5570	2 (66.67)	1 (33.33)		0 (0.00)	3 (100.00)	
Family type						
Nuclear	33 (35.11)	61 (64.89)	0.893	1 (1.06)	93 (98.94)	0.172
Joint	44 (36.67)	76 (63.33)		5 (4.17)	115 (95.83)	
Dietary habit						
Vegetarian	11 (28.21)	28 (71.79)	0.263	1 (2.56)	38 (97.44)	0.920
Nonvegetarian	66 (37.71)	109 (62.29)		5 (2.86)	170 (97.14)	
Family Size						
4 or less	38 (34.86)	71 (65.14)	0.591	0 (0.00)	46 (100.00)	0.194
More than 4	39 (37.14)	66 (62.86)		6 (3.57)	162 (96.43)	

\* p value less than .05 shows significant association.

## DISCUSSION

Tobacco chewing in our study was slightly more among females (37.4%) as compared to males (34.%) while it was just opposite for smoking none of the female in the village reported smoking while it was 5% among males. Although in other studies in non tribal villages just opposite picture have been reported a higher prevalence of tobacco chewing in men than in women. Prevalence of smoking in our study was (5%) was quite lower than prevalence of smoking in men in rural India and other developing countries.<sup>5-7</sup>

Regarding age maximum tobacco use was prevalent in 60 and above age group for tobacco while it was between 50-60 in smoking.

Most common form consumed was tobacco followed by Pan tobacco and in smoking 80 % population smoke bidi. Tobacco chewing was started as earlier as 0-10 yr of age group for 18 % population while smoking was started at 11-19 yrs of age

group. It was revealed by informal discussion that both men and women started chewing tobacco at very early age group more over the people get habituated of tobacco in the form of teeth cleaning substances known as nasbar or nus manjan aand gudakusupari

Mean age for initiation of tobacco chewing was 9.2 yrs for males and 11.7 yrs for females . Among the Indian studies, the mean age of initiation of tobacco use has been found to vary from 8 to 15 yr<sup>8-10</sup>. The majority of the tobacco users worldwide have reportedly first tried tobacco prior to age 18, some starting as young as 10 yr<sup>11</sup>.

Both tobacco chewing and smoking were more prevalent among illiterate population But education status was found to be significantly associated with both smoking and tobacco chewing.

When tobacco chewing pattern according to occupational status was it was most prevalent among housewife females followed by farmers and la-

brouter while smoking was most prevalent among farmers and labour and occupation was found to be significantly associated with both tobacco chewing and smoking, in a similar study Kaneta C et al sex, age, marital status, years of education, and occupation had a statistically significant relationship with tobacco consumption<sup>12</sup> Both of these addiction were more common in joint families and non vegetarian villagers but no significant association was found for tobacco chewing and smoking type of families and dietary habit<sup>13</sup>. In a study by M Rani, Rani et al found Tobacco consumption was the highest in the least educated, lower socio-economical class.<sup>14</sup>

Most probable reason for this in joint families chances of adopting these habits were by looking each other this specially true for kids used to follow the things by looking elders life style.

## CONCLUSION

The study showed that in rural areas specially in tribal villages people are very much addicted to tobacco chewing so there is need to improve health outcomes among the tribal population must include effective interventions to control tobacco use. Failure to do so would most likely result in increase in diseases due to chewing tobacco.

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