

Prevalence of Tobacco Use Among the Males in Patna District, Bihar, India

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ABSTRACT

Background: Tobacco use is one of the primary causes of oral cancer. Since, there are rural and urban disparities in these major areas, important focus on the ill effects of smoking during adolescence as well as during pregnancy, and provides an overview of select prevention and termination programs.

Materials and Methods: A cross-sectional study was designed in a rural setting at Patna district from Dec 2018 to Aug 2019. Total of 300 male subjects from Patna, Bihar were randomly included in the study. The age group of the samples were from 25 years to 65 years. Statistical analysis was performed.

Results: A total of 300 males volunteered for this study. Majority of subjects belonged in the age group of 46 to 55 age group (34%) followed by 25 to 35 years age group (29%). The mean age of the subjects was 44.14 ± 9.03 Years.

Conclusion: Prevalence was established more in an educated group of people. Hence the time has come to make the general public aware of the ill effect of tobacco, and a change in government policy is urgently required.

Keywords: Prevalence, tobacco, survey.

INTRODUCTION

Tobacco use is one of the primary causes of oral cancer¹. Chief objectives of Healthy Population are by plummeting exposure to second hand smoke(SHS) and tobacco use by different age group of people. Since, there are rural and urban disparities in these major areas, important focus on the ill effects of smoking during adolescence as well as during pregnancy, and provides an overview of select prevention and termination programs. Each year tobacco leads to approx 5 million death internationally. In India, nearly one million people die due to tobacco-related diseases every year. Tobacco was familiarized into south Asia in early 16th century². South Asia is one of the biggest exporters and purchaser of tobacco worldwide².

Tobacco in outmoded forms like tobacco with lime, betel quid and powder form are commonly used among all age groups¹. Tobacco use ranked sixth among the Healthy People focus areas in terms of rural health priority rating, selected by an average of 26 percent across the four groups of respondents with in the states

Tobacco eating is also unswervingly attributed to cardiovascular ailments and chronic lung disease³. It is estimated that they are approximately one billion smokers in the world, and these smokers consume about 6 trillion cigarettes annually⁴. Chewable tobacco is a significant risk factor for oral cancers⁵. A study by Giovina⁶ concluded that

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tobacco consumption was frequent and higher in the lower socioeconomic group.

India is home to about 700 billion annual 'bidis' consumers. Bidi is a type filter less hand-rolled cigarette. In India, tobacco is used in different forms and available at a various price range. India is the third-largest producer and second-largest consumer of tobacco products in the world⁷. A survey undertaken by the Global Adult Tobacco Survey (GATS) showed that 52 per cent of adults in India were exposed to second smoke (SHS) at home. Narayana et al.⁸, in his study, explained an increased role of education as a predictor of smoking in men and women. Bala et al.⁹ concluded that smoking was more prevalent in illiterates than literates with less than seven years of schooling.

The present study was conducted in rural urban settings of Patna district, Bihar. It consists of a rural and urban area in district. The objective of the present study was to study the consumption of tobacco in different forms and population.

MATERIALS AND METHODS

A cross-sectional study was intended in a rural setting at Patna district from Dec 2018 to Aug 2019. A Total of 300 male participants from Patna district were randomly included in the study. The age group of the samples were from 25 years to 65 years¹⁰. In order to analyse the sample magnitude, the incidence was taken as 35% in the rural population, and formulae used was $n = 4qp/L^2$ where L was born as 15%. The calculated sample size was 300 but considering that few subjects may not respond to study, the sample size was kept at 325.

All the demographic specifics and evidence on tobacco use was obtained by using a predesigned and pre-tested opinion poll. Conversant consents were taken by all the subjects. Data entry was done using Microsoft Excel (Microsoft office Version 2016, USA.) and analysed by SPSS (v8 for windows, IL, USA.).

Table 1: Socio-demographic profile of the study population (300).

Socio-demographic Variables	N(%)
Age	
25-35	87 (29)
36-45	51 (17)
46-55	102 (34)

RESULTS

A total of 300 males volunteered for this study. Majority of subjects belonged in the age group of 46 to 55 age group (34%) followed by 25 to 35 years age group (29%). The mean age of the subjects was 44.14 ± 9.03 Years. Majority of participants belonged to the joint family (89%) whereas 11% belonged to a nuclear family. Data also showed that most of the subject who were married (66%), consumed more amount of tobacco than the single ones (32.5). The analysis also shows that educated people (66.5%) consumed more tobacco than illiterate ones (33%) (Table 1).

Table 2 shows that the prevalence of smoking is much lower. When it comes to the preference, then people choose bidi (85%) on a cigarette (16%). The subjects who were currently non-smokers were divided into two groups of former smokers and never smokers. The subjects who never smoked were 51%, followed by former smokers (48%). Mean age smoking initiation was as early as 29 years.

Next data was analysed for the subjects who used smokeless tobacco products (Table 3). Most of the subjects consumed gutka (53%) followed by pan masala (27%) and tobacco with lime (21%). Among the current no user group, 45% were the former user, whereas 48% never used the smokeless tobacco product. The mean age of smokeless tobacco consumption initiation was 26 Years.

Table 4 shows the prevalence of smoking (10.61%) was highest in the age group of 56 years and above followed by 36 to 45-year age group (8.81%), 46 to 55-year age group (4.23%), and 25 to 35-Year age group (6.53%). Prevalence of smokeless tobacco consumption was highest in 36 to 45-year age group (30.34%) followed by more than 56 years age group (25.86%), 46 to 55-year age group (20.23%), and 25 to 35 Year age group (25.86%).

≥56	60 (20)
Type of Family	
<i>Nuclear</i>	33(11)
<i>Joint</i>	267 (89)
Marital Status	
<i>Single</i>	99 (33)
<i>Married</i>	198 (66)
<i>Widow/widower</i>	3 (1)
Education	
<i>Illiterate</i>	99 (33)
<i>Educated</i>	201 (67)

Table 2: Data of Tobacco smoking habits among males.

Status of smoking	N(%)
Current Smoker	39 (13)
<i>Bidi</i>	255 (85)
<i>Cigarette</i>	48(16)
Current Non Smoker	161 (87)
<i>Former Smoker</i>	144 (48)
<i>Never Smoker</i>	153 (51)
Mean age of smoking initiation	29.45 ± 6.92 Years

Table 3: Data regarding the use of smokeless tobacco products.

Status of tobacco use type	N(%)
Current User	171 (57)
<i>Pan Masala</i>	81 (27)
<i>Gutka</i>	159 (53)
<i>Tobacco with lime</i>	63 (21)
Current Non User	135 (45)
<i>Former User</i>	144 (48)
<i>Never Used</i>	156 (52)
Mean age of initiation	26.32 ± 6.83 Years

Table 4: Prevalence of tobacco consumption in different age group.

Age Group	Current smokers (%)	Current use of smokeless tobacco (%)
25-35	6.53	15.21
36-45	8.81	30.34
46-55	4.23	20.23
≥56	10.61	25.86

DISCUSSION

The occurrence of smoke among the males of Patna was 13% (table 2) which is in accordance with the study conducted by Bhagyalaxmi et al.¹¹, in the

district of Gandhinagar and Mehan et al. in Vadodara¹². According to mehan et al., the prevalence of smoking in Vadodara males were 12.2%¹². whereas the prevalence data by Bhagyalaxmi in Gandhinagar was 12.8%¹¹. The

study conducted by ICMR-WHO lower incidence at the national level. This can be attributed to the difference in sample variation at the national level.

The educated group consumed tobacco more than the uneducated group. Alike results have been reported by Maralani V¹³. She established the significance of education in tobacco addiction. She detailed that tobacco habits are developed as early as 12 to 18 years, at the time of education long before the higher education is obtained. Osazuwa-Peters, in his research, reported that the wedded men were less likely to consume tobacco products¹⁴, but in our research, we found married men to used up more amount of tobacco products than their counterparts. In his study, he found 61% of unmarried men to be smokers. When compared with our study, only 33% of single men were smokers.

In the current study, the mean stage of tobacco commencement was logged as 29.49 Years in smokers and 26.28 years in tobacco chewers. In another study showed at Jamnagar, the mean age of tobacco beginning was found to be 26.5 years in smokers and 23.6 years in tobacco chewers¹⁵. Tobacco and gutka were the prominent forms of tobacco that were used up in the present study. This finding was in agreement with Joshi et al. who also concluded that mawa masala was the predominant form of tobacco abuse¹⁵. The reason for this can be attributed to the low cost, which is preferable in the rural and low-income group.

In the current study, smoking was most prevalent in age group 56-years, and above whereas, smokeless tobacco consumption was highest in 36 to 45-year age group. The finding of this study is very similar to the survey conducted by Dhara et al., who also reported that smoking is more prevalent in the age group of 55 years and above¹⁶. According to the study conducted by GATS-India in 2009, smoked tobacco consumption was highest in a 45-54-year group whereas, and chewable tobacco use was highest in 65-year and above group. The reason for this increase can be due to the financial affordability at the given age. Sen et al. reported a similar finding in his study. He too concluded that tobacco consumption was increased along with the increase in age¹⁷.

CONCLUSION

Worldwide India is the largest consumer of tobacco related product. In this region people are exposed to tobacco at an very early stage of life. Tobacco consumption increased with the progression in age and reached its highest at the age of 56 years or above. Prevalence was established more in an educated group of people. Hence the time has come to make the general public aware of the ill effect of tobacco, and a change in government policy is urgently required.

CONFLICTS OF INTEREST

The authors declare they have no potential conflict of interests regarding this article.

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