

A Cross-Sectional Study on Prevalence of Tobacco Usage and Associated Socio Demographic Factors Among Adults in Rural Field Practice Areas of A Medical College, Kancheepuram District, Tamil Nadu

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Abstract: *Background:* According to the World Health Organisation, tobacco usage is one of the public threats killing more than 8 million people all around the world. This study is conducted to estimate the prevalence of tobacco usage among adults in the rural field practice areas of a Medical College and to know its associated factors. *Methods:* A cross-sectional study was performed on Tobacco usage among 278 individuals above 18 years of age, belonging to the rural field practice area of a Medical College. The usage of tobacco were classified using Modified Global Tobacco Adult Survey-Core Questionnaire (November 2010) *Results:* Mean age of the participants were 44.18 ± 11.003. The overall prevalence of Smoking Tobacco was found to be 55.4% and Smokeless Tobacco usage was about 44.6%. The usage of Cigarettes (38.8%) was higher compared to usage of Beedis (15.8%) and among Smoking Tobacco was Chewing Tobacco (36%) followed by usage of Tobacco with Betel nut (7.2%). *Conclusion:* The prevalence of tobacco use is found to be higher in rural areas and it can be due to various factors, out of which literacy plays a major role. Women are found mainly to use smokeless tobacco than smoking type. As tobacco usage is one of the risk factors for many diseases and cancer among people preventive measures, intervention strategies and health awareness on effects of Tobacco usage must be made mandatory

Keywords: Tobacco usage, Socio demographic factors, Rural area

INTRODUCTION

According to the World Health Organisation, tobacco usage is one of the public threats killing more than 8 million people all around the world. Though it kills millions of people, it is also one among the most leading preventable cause of disease and death among adults.¹ On an average about 19% men and 2.0% women and 10.7% adults are involved in smoking tobacco and 29.6% men and 12.8% women and 21.4% adults are using smokeless tobacco products⁵

By 2030 it is expected to kill more than eight million people per year. There are two different types of tobacco usage classified as smoking and smokeless type of usage. 2 The smoking type in India includes, a) Cigarettes b) Beedis c) Cigars d) Hookah/Pipes. The smokeless tobacco products include, loose tobacco leaf involved in chewing, sniffing it, placing it between gums and teeth, dipping tobacco and dissolvable tobacco products.³

Mostly in India, and several other countries, women use forms of tobacco, such as chewing tobacco. As the result of increased prevalence among them, if immediate initiatives and prevention are not taken, the number of female users of tobacco is predicted to rise over the

following years. One of the main reasons for the prevalence in women are less importance to women specific health education on ill effects of it in countries like India.¹ Tobacco consumption is one of the major causes of death due to cancer. It causes cancer of the lung, mouth, oesophagus, throat, bladder, kidney, liver and stomach etc.³

The most common diseases due to tobacco usage according to the American Lung Association are Lung Cancer, COPD, Heart disease, Stroke, Asthma, Reproductive diseases, Premature low birth weight babies, Diabetes etc.⁴ All though the ill effects of tobacco usage is known to people all over the world, the main reasons for usage depends on social class and local factors, out of which Peer influence and pressure, curiosity and experimentation, advertisements and promotions, relief of stress and anxiety is the most common.^{6,7} Although proper measures have been taken by the government and awareness created among people according to the Global Adult Tobacco Survey-2 gives information that the prevalence of tobacco usage has only decreased lesser by 6% from 34.6% in 2009-10 to 28.6% in 2016-17.⁵ The World Tobacco Day is celebrated every year at 31st May, and this year theme being "Protecting youth from industry manipulation and

preventing them from tobacco and nicotine use". This year campaign mainly emphasises on the knowing the manipulation tactics done by the tobacco industries targeted at youth, including the introduction of new products, flavours and other attractive features to increase the production and to empower influencers to create an awareness to protect the youth change by involving them in the campaign for a World free of Tobacco. Though proper measures are been taken to control the prevalence of tobacco usage still various factors influence the usage. Hence this study was taken up to understand the factors related to the tobacco usage.

METHODOLOGY:

A cross sectional study was conducted among 278 adults both males and females belonging to the rural field practice area of Rural Health Training centre, Poonjeri, Chengalpattu. The Study involved people in the villages around the Rural Training Health Centre. The Health centre covers about 12 villages belonging to the respective blocks with a total population of about 40,000 people. (According to the Census of 2011).

With the reference of Prevalence of Tobacco usage according to a study done by Chockalingam *et al*, it was found to be 23.7% [9]. So the study sample was calculated

to be 278 with 95% confidence interval and 5% precision. The data was collected by doing house to house survey among adults residing in the rural field practice area and also the patients who came to the Rural Health Training Centre. Before starting the study, protocol was approved by the Institution's Ethical Committee and the Adults who are willing to participate in this study were informed before, regarding the purpose of the study. Informed and written consent from the individuals were obtained. It was translated into the local language and standardised.

The villages were selected using Simple Random Sampling and the participants were interviewed using a Semi structured questionnaire which consists of two parts with first part consisting of the Socio demographic profile of the individual and the second part consists of the questions related to Type of usage of tobacco. It was developed according to the Modified Global Tobacco Adult Survey-Core Questionnaire (November 2010) [10] to classify the adults in the usage of Smoking and Smokeless Tobacco usage. The data was entered in Microsoft Excel 2013 and analysis was done using SPSS version 21.0. The Association with the socio demographic profile was tested for significance using the chi-square test and p value <0.05 was considered statistically significant.

RESULTS:

The study was conducted among 278 adults belonging to the Rural field practice Area. Among them, 184 were males and about 94 were females. Most of the participants were Hindus (76%). The mean age of the participants were found to be 44.18 ± 11.003 . According to modified BG Prasad Classification for Socio economic status, Class III were 121 (43.5%) found to be higher. Among the study population the percentage of Literate people were found to be 38.8% and about 61.2% were illiterates. The percentage of Smoking Tobacco among the study population were found to be 55.4% and Smokeless Tobacco usage about 44.6%. (Table 2)

In the participants who were Smoking tobacco the usage of Cigarettes was found to be higher of 38.8% followed by Beedis (15.8%). Mostly women were involved in usage of Smokeless Tobacco than men as it is easily available to them. And among men the usage of both smoking along with Alcohol was found to be 24.5%. In the usage of Smokeless Tobacco, Chewing Tobacco was considered higher of 36% followed by usage of Tobacco along with Betel nut which was 7.2%.

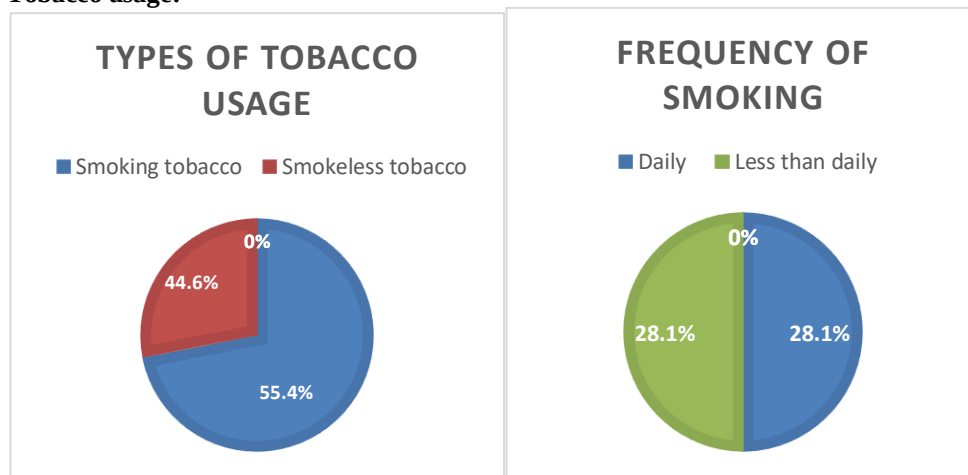
In Chi Square analysis the factors like Age, Socio economic classification, Literacy Rate, Daily smokers, Type of Products used in smoking, Daily Usage of Smokeless Tobacco, the products used for Smokeless Tobacco were found to be statistically significant.

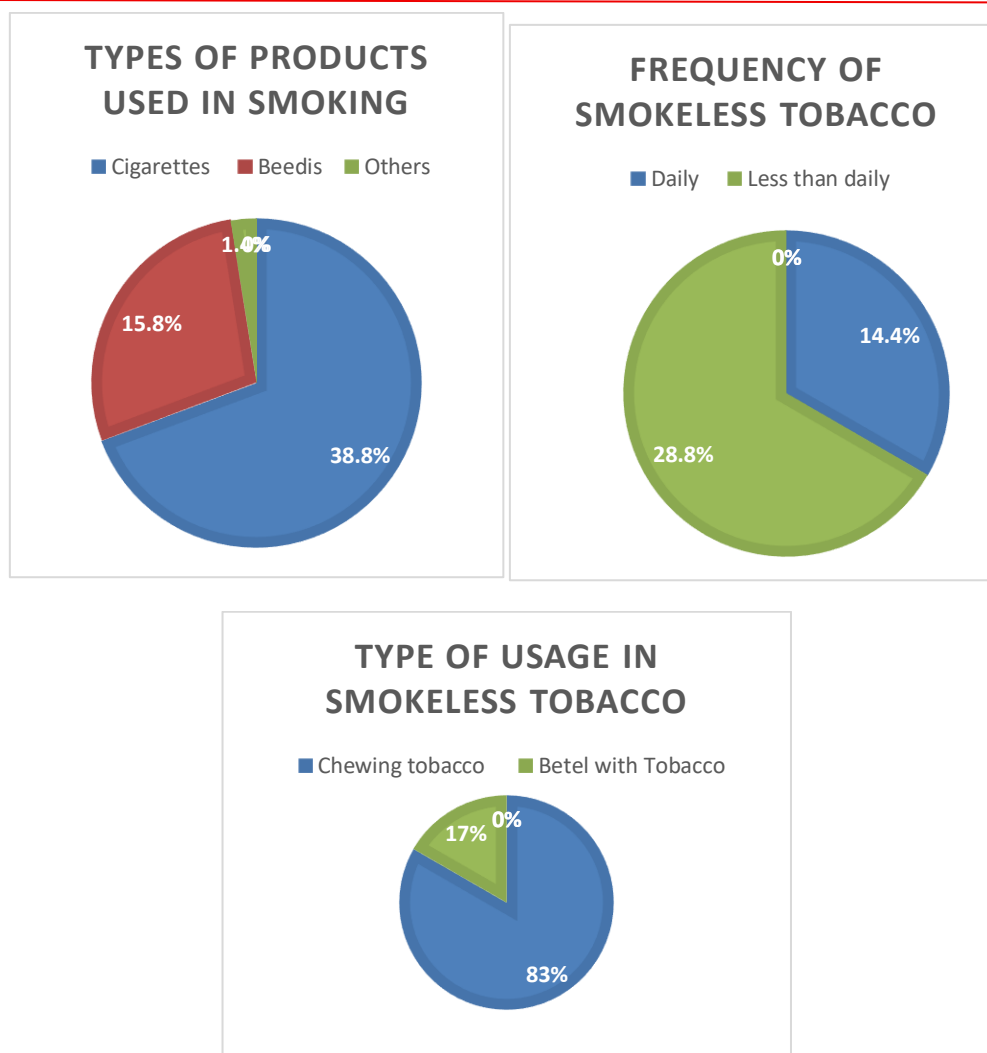
Table 1: Socio Demographic Profile:

Variables	Categories	Frequency (n) Total = 278	Smoking Tobacco(%)	Smokeless Tobacco(%)	P value
Age	20-30	36	7.91	5.03%	.235
	30-40	60	8.27	9.71	
	40-50	114	19.7	21.2	
	>50	68	16.18	8.27	
Sex	Male	184	42.44	23.7	.000*
	Female	94	0	33.8	
	Others	0	-	-	
Marital status	Single	88	23.3	8.27	.003*
	Married	128	22.6	23.3	
	Separate	62	11.8	10.4	
	Divorced				

Occupation	Unemployed Unskilled/ Semi skilled Skilled Clerical/ shop owners Semi professionals/ Professionals	76 35 57 56 54	18.7 6.83 8.27 6.83 14.3	8.63 5.75 12.23 13.3 5.03	.233
Type of Family	Nuclear Joint	256 22	44.9 4.67	43.12 3.23	.001*
Socio Economic Status	Class I Class II Class III Class IV Class V	54 92 121 11 0	11.5 19.06 32.01 3.23 -	7.91 14.02 11.51 0.71 -	.000*
Literacy	Literate Illiterate	108 170	28.05 20.14	10.7 41.00	0.323
Personal habits	Alcohol Smoking and alcohol Chewing Tobacco	94 68 116	25 20.14 -	7.9 4.31 41.72	0.743

Prevalence of Tobacco usage:





DISCUSSION:

The prevalence of Tobacco Usage among Adults in Rural field practice areas of a Medical College was found to be 55.4% of Smoking Tobacco and 44.6% of Smokeless Tobacco. In this study the prevalence of tobacco usage in rural areas was found to be higher when compared to a study done by Rani et al.,¹¹ which reported a prevalence of 16% smoked tobacco and 20% chewed tobacco and about 30% of both which is a study conducted all over India as a cross sectional household survey. A similar study done by Khandker et al.,¹² which was based on a urban population had the prevalence of smoking tobacco to be 35% smokeless tobacco consumption 40.6%. As most of the participants were Hindus (76%) the other religion like Christians and Muslims have lesser chances of using tobacco. It is related to the study done by Narayanan et al.¹³ where it was found to be 47.9% male and 5.6% females who were Hindus.

In the Socio demographic profile of the study population, most of the participants were in the age group 40-50 years which was contrast to the study done by Phayal et al.¹⁴ which was 42.2% in age group 18-34 years and a study done by Singh et al.,¹⁵ the prevalence of smoking

increases to the maximum level in the age group between 50-54 years and found that the prevalence of smoking was higher among the older people who are living in the rural areas than the urban areas. Similar results were found in a study done by Daniel et al.,¹⁶ the prevalence of tobacco use increased with age and was found to be highest (47%) in those >60 years of age. In the current study, the percentage of illiterate people were found to be 61.2% whereas it was about 35.9% in a study done by Phayal et al and 58.3% in a study done by Majumadar et al.^{14,17} So the impact of Education among the people on usage and effects of Tobacco plays a major role in rural areas. And mostly women were found to be more illiterate than men.

A study done by Kalaivani et al.,¹⁸ reported the prevalence of Tobacco usage among males in Rural Tamil Nadu and was found to be 36.7% of Smoking Tobacco and 28.4% of Smokeless Tobacco and in which 64.5% smoked cigarettes and 24% smoked beedi, whereas in this study there were 38.8% males those who smoked cigarettes followed by 15.8% who smoked beedis and in the smokeless tobacco usage, 36.0% use Chewing Tobacco and 7.2% use betel with Tobacco.

In our study, the difference in tobacco usage was observed in respect to the gender of the population. Most of the men were involved in Smoking tobacco and the women were involved in usage of Smokeless tobacco. But this was in contrast to the study by Gupta et al.,¹⁹ in which the prevalence of smoking tobacco were found to be higher in women in rural areas of 16.5% whereas in this study women use smokeless tobacco only and not involved in smoking.

According to the Global Adult Tobacco Survey (GATS) Factsheet²⁰, for India 2016-17, 19.0% of men, 2.0% of women and 10.7% of all adults currently smoke tobacco and 29.6% of men, 12.8% of women and 21.4% of all adults currently use smokeless tobacco. Although India has changing trend of prevalence of women using smoking tobacco as 2.9%, the usage of smokeless tobacco among women is more compared to men and also on the type of usage, chewing tobacco is more common than snuffing by nose or mouth as it is socially accepted in the rural areas. In this study the age groups 40-50 shows a high prevalence of 40% of tobacco usage overall. Lack of awareness about health hazards associated with tobacco consumption and the tactics of the tobacco industry to target the younger population, influence of workplace and work in the rural areas are the major reasons for increased tobacco consumption in the rural areas. Health professionals have a key role in tobacco control but have not been effectively brought into this area. This study can further pave way to know about the other influencing factors that is associated for the tobacco usage among people in the rural areas.

CONCLUSION:

Based on this study, the prevalence of tobacco usage is found to be higher in rural areas and the socio demographic factors influencing have the major contribution in it. Women are found mainly to use smokeless tobacco than smoking type and impact of education has a major role in understanding the ill effects of Tobacco usage. As usage of Tobacco is one among the major risk factors for many diseases and cancer among people, preventive measures and intervention strategies, community participation programmes, health awareness on effects of Tobacco usage must be made mandatory in the rural areas.

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Nil

Conflicts of Interest:

There are no conflicts of interest

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