

Prevalence and acquisition of tobacco use among rural women in reproductive age group - a community based cross sectional study

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Abstract

Background and Objectives: Tobacco is world's number one killer and it kills up to half of its regular users. Over one-third of tobacco consumption regionally is in smokeless form. Traditional forms like tobacco dentrifice or tobacco tooth powder and betel quid, tobacco and lime mixture are commonly used and also, the new products use is increasing not only among men but even among children, teenagers, women of reproductive age. The disease burden, health care costs as well as other social losses resulting from premature deaths attributable to tobacco consumption are rapidly increasing. This study was done to know the prevalence of tobacco consumption among the rural women in the reproductive age group and the factors that influence tobacco use initiation among them.

Methodology and Analysis: A community based cross sectional study, conducted from January 2011 to December 2011 among 1200 rural women aged between 15 years to 49 years residing in Primary Health Centre (PHC) Vantmuri area, Belgaum, Karnataka, India. Statistical analysis was done using rates and ratios.

Results: Tobacco consumption was seen in 9.7% of the study participants. 84(71.8%) of the ever tobacco users were influenced by their family members to start the use of tobacco. Toothache was the main reason for initiating tobacco use among 67(57.3%) tobacco users followed by peer pressure 30(25.6%).

Conclusion: Prevalence of tobacco consumption was 9.7%. There is a need for appropriate intervention to create awareness among the women about the hazards of tobacco use and to help them eventually to stop tobacco consumption.

Keywords: Dentrifice, Initiation factors, Reproductive age group, Smokeless tobacco Tobacco use.

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Introduction

Tobacco use is the single most important avoidable risk factor in the growth of non-communicable diseases all over the world. Roughly 10% of the world's tobacco smokers live in India representing the second largest group of smokers in the world after China. India is also the third largest producer of tobacco leaves in the world.¹ Tobacco causes 10% of deaths worldwide, nearly 5.4 million a year of which 80% occur in developing countries.² Approximately 250 million women in the world are smoke daily. Roughly around 22% of women in developed countries and nine percent of women in developing countries use smoking form of tobacco. In addition, many women in South Asia chew tobacco.³

In India, each year nine lakh people die due to tobacco related diseases and more than 2200 Indians die every day due to tobacco use. Tobacco use is responsible for 40% of all cancers in India. India is having highest number of oral cancer cases in the world among which 90% are tobacco related.² According to

National Family Health Survey-III(NFHS) estimates, 120 million Indians smoke of whom 11% of women aged 15 to 49 years consume some form of tobacco either smoked or non-smoked. The prevalence of tobacco use in any form among rural women in the age group of 15 to 49 years is 12.9% as compared to 6.7% in the urban women. Estimates show that, 8.5% of pregnant mothers and 10.8% of breastfeeding mothers use tobacco in some form.⁴

Tobacco causes negative effects on a person's health as soon as he/she starts using it in any form either regularly or occasionally. Short-term effects include tooth decay, breathing problems exaggeration of asthma. Long-term effects include cardio-vascular diseases, reproductive disorders, birth defects, brain shrinkage/cognitive dysfunction, Alzheimer's disease, stroke, cataract/blindness, cancers and respiratory disorders.^{2,3}

Tobacco is a killer of men and women but sex-specific differences exists. A high prevalence of smokeless tobacco use is an additional risk for premature death, especially among women. Tobacco use is one of the six leading attributable risk factors for chronic diseases in women aged 20 years and above.³ Second Hand Smoking (SHS) exposure leads to additional morbidity in pregnant women and their newborns. Studies have also shown association of SHS with genetic mutations and low birth weight in the newborn. Poor pregnancy outcomes from tobacco use

during pregnancy include still births, increase in placental weight, fetus wastage, low birth weight, lower gestational periods (preterm),^{3,5} delayed conceptions, sudden infant death syndrome, premature rupture of membranes, abruptio placenta and placenta previa.^{3,6}

There are many gaps in the data about the health impact of tobacco use on girls and women of all ages and throughout the life-course. Tobacco use among women in the reproductive age group has various negative effects and the data available in this field is less.

Objectives of this study

To estimate the prevalence of tobacco consumption in any form (smoking or smokeless form) among rural women in the reproductive age group.

Also, to assess the influential reasons for initiation and acquisition of tobacco consumption.

Subjects and Methods

A community based cross sectional study was conducted from January 2011 to December 2011 among 1200 rural women aged between 15 years to 49 years residing in PHC Vantmuri area, Belgaum, Karnataka, India. The total population of Vantmuri PHC was 34190. There were 17 villages under the Vantmuri PHC under 5 subcentres. Considering the population of women under the reproductive age group as 22%, accordingly the total population of women under the reproductive age group is 7522. The sample of 1200 was taken proportionately from all the villages depending upon the population of the each village using systematic random sampling method (CI 95%). According to NFHS 3, 15-49 years aged women were considered as women under reproductive age group. So, all women in the age group of 15-49 years and girls less than 15 years who have attained menarche were in the inclusion criteria. Every tenth household was visited and data regarding woman under the reproductive age group was collected. In households with more than one eligible study subject, chit method was used for selecting the study participant. With approval from the Ethics committee and taking written informed consent from the study subjects, data regarding tobacco consumption was collected.

Data analysis

The data was tabulated using Microsoft Excel Worksheet and analyzed using mean, proportions and percentages. The statistical analysis was done with SPSS 18 statistical software.

Results

Out of the 1200 study participants, 117 women had ever consumed tobacco in either form (smoking or smokeless). The prevalence of tobacco consumption was 9.7%. 84(71.8%) of the ever tobacco users were influenced by their family members for the initiation to

use tobacco; whereas 26(22.2%) were influenced by their friends, while 6(5.1%) had multiple influencing factors. (Table 1).

After analysis, the study reported that majority 67(57.3%) initiated the tobacco use as a household remedy of toothache in the form of dentrifice followed by peer pressure 30(25.6%) whereas 3(2.6%) each had started using tobacco as a hobby and for pleasure. For 3(1.7%) women, tension and depression were the other reasons for starting tobacco consumption. (Table 2).

Table 1: Influencing factors for initiation of tobacco use

Influencing factors for tobacco use	(Tobacco users) n=117	
	Number	Percentage
Family members	84	71.8
Friends	26	22.2
Advertisements	1	0.9
Multiple	6	5.1

Table 2: Reasons for initiation of tobacco use

Reasons for Initiation	(Tobacco users) n=117	
	Number	Percentage
Toothache	67	57.3
Peer Pressure	30	25.6
Curiosity	7	6.0
Pleasure	5	4.3
Hobby	3	2.6
Others	3	2.6
Multiple	2	1.7

Tobacco as first use in the morning

79(67.5%) of the ever users consumed tobacco as first thing in the morning as against 38(32.5%) women who did not use tobacco as first thing in the morning.

66(56.4%) of ever users believed that tobacco use helps in decreasing toothache whereas 29(24.8%) believed that tobacco use helps in bowel movement and 20(17.1%) believed that tobacco consumption decreases headache.

Discussion

Tobacco is packed with harmful as well as addictive substances. Scientific evidences have shown conclusively that tobacco in any form cause health problems in life, frequently resulting in premature death or disability. The epidemic of tobacco-related diseases has expanded from developed to developing countries and tobacco use is increasingly becoming a major health issue for men as well as women. Consumption of tobacco varies widely from region to region and there is lack of information regarding the tobacco use among the women in reproductive age group. This paper helps in understanding the initiation factors and epidemiology of Tobacco related health burden in the study area among the women of the reproductive age group.

In our study, the prevalence of tobacco consumption was 9.7%. This is less when compared to that of NFHS 3⁴ where the prevalence of tobacco among women in rural areas was 13% in India and in Karnataka, 6.6% of the women used some form of tobacco. Global Adult Tobacco Survey (GATS)⁷ in 2010 reported current tobacco use in any form in females was 20.3%. Indian Council of Medical Research (ICMR) study⁸ reported 11.7% ever use of tobacco among the women aged 15 to 49 years.

Almost 70% of our tobacco users were influenced by their family members to use tobacco, whereas their friends influenced 22%. It can be noted that the influence of family members and friends determine the tobacco consumption. In a small study, one-third to one-half of children under the age of 10 years in rural areas of three Indian states (Gujarat, Tamil Nadu and Karnataka) had experimented with tobacco in either form, imitating parents, grandparents, elders of the family and peers. In another study encompassing the entire state of Goa, out of a total 6271 children aged 5–10 years from 73 village schools, nearly 13.4% boys and 9.5% of girls used tobacco, mostly smokeless (*mishri* or tobacco toothpaste, followed by chewing form), and family members being most influential in this regard.⁹

Toothache was the main reason for initiating tobacco use among 57.3% tobacco users followed by peer pressure among 25.6%. This could probably be because of the belief that toothache is relieved by tobacco. These reasons indicate the triggering factors for initiation of tobacco use against which interventions could be planned to curb the onset of tobacco consumption.

More than half of our users believed that tobacco consumption reduces toothache and around 24% users believed that it helps in bowel movement. This suggests the mindset and the fad/myth about tobacco use and its effects among the population. On the other hand, myth that tobacco, either smoked or smokeless, has medicinal value for palliating common discomforts like toothache, headache, and stomach ache including effects on the bowel movements. This encourages giving advice to initiate tobacco use by users to non-users, even children especially in the rural areas.

The awareness about hazards of smokeless tobacco is very low in rural populations. Various interventional studies in India have demonstrated the efficacy and feasibility of anti-tobacco education for the community in high tobacco-chewing areas through controlled intervention studies.⁹

Also, India, has now become the signatory nation to “Framework Convention on Tobacco Control” (FCTC-WHO, 2003)¹⁰, an international public health treaty first ever on any health issue, and is coming out with stringent tobacco control policies. It has become the need of the hour to provide enough evidence on the correlates of tobacco use in the community to assist

government policy makers, health professionals and the public in developing realistic models towards effective tobacco control to cater to different sections of community in need.

Conclusion

Women under the reproductive age group constitute an important segment of the population. It was evident from this study that the tobacco use is widespread among the women under reproductive age group in the study area. There is a need for appropriate intervention to create awareness among the women about the hazards of tobacco use and to help them eventually to stop tobacco consumption.

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