

A Profile of Tobacco Consumption Among Females Female more than 15 Years of age In Rural Field Practice Area of RHTC. Kaladagi.

Kalpana Kulkarni¹, Manjula R², Ashalatha Mallapur³, Basavaraj Mannapur⁴, Ghattargi CH⁵

¹Assistant professor & Statistician, ² Assistant professor, ⁴Associate professor, ⁵Professor and Head
Department of Community Medicine

³ Professor & Head Department of OBG, S. Nijalingappa medical college Bagalkot, Karnataka, India.

Abstract

Introduction: In India it has been estimated that roughly one-third of women and two thirds of men use tobacco in any form (smoke or smokeless form). Awareness of the hazards of smokeless tobacco consumption is very low in rural populations. On the other hand, many believe that tobacco use has medicinal value for curing or palliating common ailments such as toothache, headache, and abdominal pain.

Aim and objectives:

1. To know the prevalence of smokeless tobacco consumption among females of more than 15 years of age
2. To study the factors responsible for smokeless tobacco consumption among them.

Material and methods:

Study design: A cross sectional study.

Study setting: Rural Health Training Centre (RHTC) Kaladagi, Bagalkot.

Study participants: Women more than 15 years of age in slum area of RHTC Kaladagi.(255)

Statistical analysis: Chi square test.

Results: In present study 17.6% of women were chewing tobacco. 88.89% of women were chewing tobacco because of toothache. There is association between tooth ache and tobacco consumption and it is statistically highly significant also. Chi-square value=190.8 (P<0.000001)

Key words: smokeless tobacco, females, rural slum.

Introduction

In India it has been estimated that roughly one-third of women and two thirds of men use tobacco in one form or another [1].

In India tobacco problem is more complex than probably that of any other country in the world, with a large consequential burden of tobacco-related diseases and death [2].

Awareness of the hazards of smokeless tobacco consumption is very low in rural populations. On the other hand, many believe that tobacco use has medicinal value for curing or

palliating common discomforts such as toothache, headache, and abdominal pain. This leads to advice for initiating tobacco use from adults to other nonusers, even children [3].

Countries in South Asia are major producers of tobacco and the region is a net exporter. . Tobacco leaf production has been increasing steadily for many decades, and has doubled since the 1960[4].The increasing demand for tobacco in Bangladesh is being met by imports, especially from India[5].

Address for correspondence

Dr. Manjula R.

C/O S.S.Belagal, 8th Main, "Pratiksha" Vidyagiri. Bagalkot-587102 Karnataka, India.

Email: manjupushya2000@yahoo.com

Although smoking by women is not well accepted in Indian society, consumption of smokeless tobacco is well accepted. Globally consumption of tobacco is a major risk factor for mortality with an estimated five million people killed every year [1,6,9]. In South East Asian countries particularly in India, tobacco is consumed in various smokeless forms like chewing and snuffing for eg. "Pan masala"(a balanced mixture of betel leaf with lime, arecanut, clove, cardamom, mint, tobacco, essence and other ingredients) "Betel Quid" (mixture of areca nut, slaked lime and flavoring ingredients Which are wrapped in betel leaf) "Gutka" (a mixture of crushed areca nut,tobacco, catechu, paraffin, lime and sweet or savory flavorings), Mishri (tobacco containing teeth cleaning (powder) and Snuff (pulverized tobacco leaves) [10].

This tobacco consumption also causes cardiovascular diseases, cancers and respiratory diseases. In addition among women smokeless tobacco consumption would lead to infertility and in pregnant women, it causes adverse reproductive outcome like abruptio placenta, intrauterine growth retardation (IUGR), preterm labour, intrauterine death etc. Hence women are at larger risk of morbidity when tobacco is consumed in any form. About 1/3 of global population aged over 15 years are smokeless, among them 12% are women[11]. Hence this study was taken up to study the prevalence and factors contributing to tobacco use in rural area.

Aim and objectives

1. To know the prevalence of smokeless tobacco consumption among females of more than 15 years of age.
2. To study the factors responsible for smokeless tobacco consumption among them.

Material and methods

This cross sectional study was conducted in a slum area of Kaladagi RHTC, attached to the Department of Community Medicine, S. Nijalingappa Medical College, Bagalkot during June 2010. It consists of 114 families with total population of 580. In this area 255 women were found in the age group of ≥ 15 years and they were

all included in the study.

After obtaining informed consent, demographic details like name, age, occupation, educational status were obtained. Information regarding tobacco use and its determinants were taken using predesigned, pre-structured questionnaire. Data was tabulated and analyzed using Open Epi. Software.

Results

In present study 17.6% of women were chewing tobacco. 40% of women were chewing tobacco since less than 10 years and 37.7% of women were chewing tobacco since 10-20 years but 15.6% of the women were chewing tobacco since 20-30 years; only 6.7% of women were chewing tobacco since more than 30 years. 37.8% of women were chewing less than one pack of tobacco per day and 26.7% of women were chewing two packs tobacco per day, as shown in Table -I. 88.89% of women were chewing tobacco because of toothache. There is association between tooth ache and tobacco consumption and it is statistically highly significant also. Chi-square value=190.8 ($P < 0.0000001$). Only 11.11% were chewing tobacco because of other reasons as shown in Table-II.

Among the tobacco chewers 11.11% of the women belonged to each of 15-24 years and 65-74 years age group, 6.67% of women belonged to 25-34 years age group and 26.67% of women belonged to 35-44 years age group but 24.44% of the women belonged to the age group 45-54 years and 15.56% of the women belonged to the age group 55-64, years only 4.44% of women belonged to 75-84 age group. Among the chewers, 44.45% of women belonged to the socio-economic class III, 33.33% of the women belonged to the socio-economic class IV and 11.11% of the women were in the socioeconomic class II and V. 57.78% of women who were chewing tobacco among house wives, 33.33% women were chewing tobacco were laborers and 4.44% of students who were chewing tobacco were girls. Lady teachers are not at all chewing tobacco, only 4.45% of women were chewing tobacco in other occupations as shown in Table-III.

Discussion

In countries of South Asia, particularly India, traditional values do not favor smoking by the young women, but there is no such taboo against using smokeless tobacco. Thus, most women who use tobacco use it in smokeless forms[3]. In our study around 18% of the women gave history of tobacco consumption and similar observations were found in Bangladesh, in a study conducted by Islam N. 20–30% of women in rural areas are estimated to use smokeless tobacco[12]. In our study around 78% of the women belonged to middle class but a study conducted by Gupta PC, observed that 60.5% of women belonged to middle class[13]. In our study use of smokeless tobacco among female students was 4.4% and in a study conducted by Madhumita Dobe, South East Asia Region they got 8.4% of female students using smokeless tobacco[14].

In the present study, it was observed that 18% of the women had used tobacco in smokeless forms, whereas National sample survey organization (NSSO) 1999 found the prevalence was 10.9 % [15]. This difference could be due to the cohort effect and also probability of increased tobacco consumption in smokeless form. Age specific tobacco prevalence in our study was maximum in the age group of 35-44 years constituting 26%, where as NSSO 1999 observed that it was maximum in 60 + age group in rural females. An oral use of smokeless tobacco is widely prevalent in the South East Asia Region; the different forms include chewing, sucking and applying tobacco preparation to the teeth and gum as a home remedy for the dental caries and bleeding gum. In our study maximum (88.89%) of the respondents who used tobacco had toothache as the cause for starting its use. The association between the tobacco use for toothache was found to be statistically highly significant ($p < 0.0001$). Evidence for a trend toward increasing use of tobacco and areca nut product like gutka, pan masala and tobacco toothpaste by youth has been gathered in several recent studies[15].

In our study tobacco use among students was 4.44%. According to global youth tobacco survey, the prevalence of smokeless tobacco among young students in South East Asia Region range from 4-

20% [16-20]. In India, it was found to be 1.9% among female students [14]. The use of tobacco products as dentifrice among school going children is a special problem in India.

In South East Asia, especially there is evidence of demonstrable feasibility and efficacy of anti-tobacco education for the community through controlled intervention studies in areas with high prevalence of tobacco chewing. There is need for bringing about a change through appropriate information, education and communication (IEC) interventions in the wide spread belief that smokeless tobacco use is less harmful than smoking and thus because of lack of information many thousands of pregnant women continue with smokeless tobacco use during their pregnancy. Smokeless tobacco use needs to be given a priority during planning and management of comprehensive tobacco control [14].

Nearly 8000 chemical constituents have been identified in smokeless tobacco, while close to 4000 are present in tobacco smoke. These include alkaloids such as nicotine, nornicotine, cotinine, anatabin, anabasin; aliphatic hydrocarbons present in the waxy leaf coating and hundreds of isoprenoids that give the aroma to tobacco, phytosterols such as cholesterol, campesterol etc. and alcohols, phenolic compounds. Chlorogenic acid, rutin carboxylic acids and several free amino acids are also present in tobacco[21]. In addition a wide range of toxic metals including mercury, lead, cadmium, chromium and other trace elements have been found in Indian tobacco [22].

Awareness of the hazards of smokeless tobacco use is very low in rural population and many believe tobacco has curative or palliative effect for common discomforts such as toothache, headache and abdominal pain.[23] **Conclusion**

In our study we noticed 18% of the women were using smokeless tobacco, for various reasons, with false belief that smokeless tobacco is harmless. This smokeless tobacco has been found to have caused many precancerous and cancerous conditions. Hence awareness of the hazards of smokeless tobacco needs to be raised among them by systematic efforts of health authorities.

Table.No.I. Showing the mode of tobacco consumption by the participants.

Tobacco consumption	Number	Percentage
Present	45	17.6%
Absent	215	82.4%
Total	255	100%
Duration in years	Number	%
<10	18	40
10 20	17	37.7
20 30	7	15.6
>30	3	6.7
Total	45	100
Reason	No	%
Tooth ache	40	88.89
Other reasons	5	11.11
Total	45	100
Pack per day	No	%
>1	17	37.8
2	12	26.7
3	7	15.5
4	6	13.3
≥5	3	6.7
Total	45	100

Table.No.III. Demographic profile of study participants.

Age in years	No	%
15 24	5	11.11
25 34	3	6.67
35 44	12	26.67
45 54	11	24.44
55 64	7	15.56
65 74	5	11.11
75 84	2	4.44
Total	45	100
Socioeconomic class	Tobacco chewers	Total
	Yes	%
I	0	0
II	5	11.11
III	20	44.45
IV	15	33.33
V	5	11.11
Total	45	100
Occupation	No	%
Student	2	4.44
Laborer	15	33.33
House wife	26	57.78
Teacher	0	0
Others	2	4.45
Total	45	100

Table No. II. Relation between tobacco consumption and tooth ache.

Tooth ache	Tobacco consumption				Total
	Yes		No		
	No	%	No	%	
Present	40	88.89	5	2.38	45
Absent	5	11.11	205	97.62	210
Total	45	100	210	100	255

References

- 1) World Health Organization. Tobacco or Health, A Global Status Report. WHO, Geneva, 1997.
- 2) Reddy KS, Gupta PC, editors. Report on Tobacco Control in India, WHOIndia.
- 3) Prakash C. Gupta and Cecily S.R. Smokeless tobacco and health in India and South Asia. Invited Review Series: Tobacco and lung Health. *Respirology* 2003;8:419-43.
- 4) World Bank Economics of Tobacco for the South Asia Region, 2003. <http://www.worldbank.org/tobacco/pdf/country%20briefs/South%20Asia%20Region.doc> Accessed 6 July, 2003.
- 5) Deb U. Agricultural Situation in Bangladesh, India and Pakistan: Part I. Agrinet Bangladesh, 3, August: 1997. <http://www.members.tripod.com/~UTTAMDEB/policy2.html>. Accessed 2 July 2007.
- 6) Ezzati M, Lopez AD: Estimates of global mortality attributable to smoking in 2000. *Lancet* 2003,362:847-852
- 7) Lopez AD, Mathers CD, Ezzati M, Jamison DT, Murray CJ: Global and regional burden of disease and risk factors, 2001: systematic analysis of population health data. *Lancet* 2006 367: 1747-1787
- 8) Jhap, Chaloupka FJ, Moore J, Gajalakshmi V, Gupta PC, Peck R, et al: Disease Control priorities, in developing countries. Tobacco addition. Edited by: Jamison DT Bremen J, Alleyne Y, Claessonm, Evans D, Oxford and Newyork: Oxford University press (2) 2006:869-86.
- 9) Jha P: Avoidable global cancer deaths and total deaths from smoking. *Nat.Rev Cancer* 2009; 9: 655-664
- 10) Lee CHkoAM, Warnakula suriyas, Yin BL, tain R B, Jbrahim SO, et al : Inter country prevalence and practices of betel-quid use in South east and eastern asia regions and associated Oral Preneoplastic disorders: An international collaborative study by asian betel-quid Consortium of south and east asia. *Int J cancer* 2010, 129:174-51.
- 11) Jha P, Chaloupko FJ. Curbing The epidemic : Governments and the economics of tobacco control. Wlashington, DC: World Bank, 1999:122.
- 12) Islam N. Challenges and opportunities for tobacco control in Islamic countries. In: Slama K (ed.) Tobacco and Health. Proceedings of the Ninth World Conference on Tobacco and Health, 10–14 October 1994, Paris. Plenum Press, New York, 1995; 178
- 13) Gupta PC, Sreevidya S Smokeless tobacco use, birth weight, and gestational age: population based, prospective cohort study of 1217 women in Mumbai, India
- 14) Dobe M, Sinha DN, Rahman K. Smokeless tobacco use and its implications in WHO South East Asia Region. *Indian Journal of Public Health* April-june 2006; 50(2): 70-75.
- 15) Reddy KS, Gupta PC. Report on Tobacco control in India. MOHFW, GoI, CDC USA and WHO Pg: 68-81.
- 16) Reddy KS, and Gupta PC. Report on Tobacco control in India. Ministry of Health and Family Welfare New Delhi, India. november 2005
- 17) World Health Organization, Report on Global Youth Tobacco Survey in Nepal, 2001, WHO, SEARO, New Delhi.
- 18) World Health Organization, Report on Global Youth tobacco survey in Bangladesh, 2001, WHO, SEARO, New Delhi.
- 19) World Health Organization Report on Global Youth, tobacco survey in Myanmar, 2001, WHO, SEARO, New Delhi.
- 20) World Health Organization. Oral Tobacco use and its implication in South East Asia, World Health Organization Regional Office for South East Asia, New Delhi.
- 21) International agency for Research on cancer. Tobacco habits other than smoking; betel quid and areca nut chewing; and some related nitrosamines IARC monographs on the evaluation of the carcinogenic risk of chemicals to humans, Vol.37 Lyon: IARC; 1985
- 22) Mishra UC, She'kh GN. Determination of trace element ; Concentrations of Indian cigarette tobacco by instrumental neutron activation analysis. *Journal of Radio analytical Chemistry* 1983; 178:385-90.
- 23) Gupta PC and Ray C, Tobacco and Youth in the South East Asia region. *Ind J Cancer* 2002, 39(1); 2002:345-355.