International Journal of Advanced Community Medicine

E-ISSN: 2616-3594
P-ISSN: 2616-3586
IJACM 2019; 2(1): 01-04
Received: 01-11-2018
Accepted: 03-12-2018

Rajesh R Kulkarni
Associate Professor, Department of Community Medicine, Jawaharlal Nehru Medical College, KLE University of Higher Education and Research (KAHER) Nehru Nagar, Belgaum, Karnataka, India

Yogesh Kumar S
Associate Professor, Department of Community Medicine, Jawaharlal Nehru Medical College, KLE University of Higher Education and Research (KAHER) Nehru Nagar, Belgaum, Karnataka, India

Sandeep Patil
Surveillance Medical Officer, World Health Organization, Uttar Pradesh, India

Correspondence
Yogesh Kumar S
Associate Professor, Department of Community Medicine, Jawaharlal Nehru Medical College, KLE University of Higher Education and Research (KAHER) Nehru Nagar, Belgaum, Karnataka, India

Prevalence of geriatric tobacco use in an urban slum of Belagavi, Karnataka

Rajesh R Kulkarni, Yogesh Kumar S and Sandeep Patil

DOI: https://doi.org/10.33545/comed.2019.v2.i1a.01

Abstract
Background and aims: Tobacco use is responsible for almost 10,000 deaths each day and approximately 4.9 million deaths per year worldwide. Many health hazards are caused, increased or exacerbated by tobacco use. Smoking is now recognized as a major public health problem among the elderly. Since factors affecting tobacco use and its prevalence among the elderly are not completely understood, the present study was undertaken to know the prevalence of tobacco consumption among elderly population in an urban slum of Belagavi city.
Methods and Material: This community based cross-sectional study was done from October 2012 to December 2012 among 395 elderly people residing in an slum under urban field practice area administrated by Medical College in north Karnataka, using predesigned and pretested questionnaire. Statistical analysis was done by using percentages and chi square test.
Results: Out of 395 study participants, 138 (34.94%) were tobacco users. Majority (65.2%) of them were consuming smokeless tobacco. In those using smokeless tobacco, 50.9% were consuming pan followed by plain tobacco (35.8%), khaini/jarda (7.6%) and gutka (5.7%). About 69% of tobacco users had initiated the habit at the age of 21-30 years. Most of the participants (60.2%) told that friends had influenced them for initiation of tobacco followed by influence from the advertisements (18.1%). Majority of study participants (76.8%) told that they don't know the exact reason for consuming tobacco, whereas 18.8% told that it increases bowel movement and 4.4% told that it decreases tooth ache.
Conclusion: There is a need to create awareness that smokeless tobacco use is less harmful than smoking. This can be achieved by strengthening the information, education and communication (IEC) activities. An environment should be created in the community that help smokers quit and persuade and help others to stop tobacco use.

Keywords: Tobacco, elderly, urban slum

Introduction
Tobacco use is responsible for almost 10,000 deaths each day and approximately 4.9 million Deaths every year worldwide [1]. Tobacco use is a serious public health problems in many countries including India because of the associated health hazards. Smoking causes a vast spectrum of diseases, many of which could result in death. There are over 50 diseases that are caused, increased or exacerbated by tobacco [2]. Tobacco use is now recognized as a major public health problem also among the elderly. Risk of death among older tobacco users is higher than among their non tobacco counterparts. Morbidity and mortality from cancer, stroke, cardiovascular, and respiratory diseases are also higher among elderly tobacco users [3, 4]. In developing countries like India, tobacco consumption is mainly done in two forms: smoked tobacco products and smokeless tobacco. Most commonly used smokeless tobacco products include – tobacco pan masala, tobacco with lime, tobacco with pan and betel quid [5]. Easy affordability, lesser cost and misconceptions regarding its useful health effects are important contributory factors for increased smokeless tobacco consumption [6]. The need to gather information about tobacco consumption in vulnerable groups like geriatric population is an important step for the development of appropriate intervention strategies [7]. Since Factors affecting tobacco use and its prevalence among the elderly are not completely understood, the present study was undertaken to know the prevalence of tobacco consumption among elderly population.

Materials and Methods
This community based cross-sectional study was conducted from October 2012 to December 2012 in the urban field practice area of Urban Health Centre (UHC) attached to Medical

College in north Karnataka. The UHC caters to a population of 30,000. The list of all the elderly residing in the area was obtained from the household survey carried out by the UHC staff earlier. All the 395 elderly people residing in the area were included as study participants. Interview was conducted in their households. The data was collected using predesigned and pretested proforma. Data regarding demographic variable like place of residence, age, sex, education status, marital status, socio-economic status and type of family were recorded. Tobacco consumption was defined according to World Health Organization (WHO) classification. Ever-smokers were defined as persons who had ever smoked for at least 6 months. Current smokers were persons smoking tobacco at the time of survey. Among current smokers, daily or regular smokers were persons smoking at least 1 beedi/cigarette every day. Any respondent smoking 5 beedis/cigarettes per day was taken as a light smoker, between 6 and 20 as a moderate smoker, and more than 20 as a heavy smoker [8]. Smokeless tobacco is tobacco or a tobacco product that is used by means other than smoking. These uses include chewing, sniffing, placing the product between the teeth and gum, or application to the skin. Smokeless tobacco products are produced in various forms, such as chewing tobacco, snuff, snus, and dissolvable tobacco products [9]. A detailed history regarding habits, type and amount of tobacco consumption and common reasons for using tobacco were taken. The data was tabulated using MS Excel sheet and analysis was done using percentages, rates and ratios. Chi square test was used to find the association between attributes. The study was approved from Institutional Ethics Committee of the Medical College. Written informed consent was obtained from all the participants.

Results

A total of 395 elderly participated in the study. Social demographic characteristics of study population showed that males (43.6%) were more than females (25.7%). Most of the study participants were Hindus (36.9%) followed by Muslims (34.7%). According to type of family 66.7% belonged to nuclear family and 34.7% belonged to joint family. Most of the study subjects were either illiterates (43.1%) or had education up to primary level (26.4%). The majority of them were in class V (70.6%) followed by Class IV (60.7%) socio-economic status. (Table 1) Among the study participants, 138 (34.93%) were using any form of tobacco. Among tobacco users, majority of them were using smokeless forms (38.41%) followed by smoking forms (34.78%). Few of them were using tobacco in the form of dentifrice (26.81%). Among 53 respondents who were using smokeless tobacco, 27 (50.9%) were having pan with tobacco, 19(35.8%) plain tobacco, 4(7.6%) khani/Jarda and remaining 3 (5.7%) used gutka. Among 48 smokers, majority (75%) were smoking bidis and remaining 25% were cigarette smokers. Among 138 tobacco users, 72(52.2%) were heavy tobacco users and remaining 66(47.8%) were light tobacco users. (Table 2) In the present study among 138 tobacco users, 68.8% had initiated chewing tobacco between the ages of 21-30 years followed by 10-20 years (18.8%). More than 60.2% of study participants were of the opinion that friends had influenced them to start tobacco followed by influence from the advertisements (18.1%). (Table 3) The reasons for continuation of tobacco use were, many considered it as a hobby (51.5%) some as a part of life (31.2%) and few as a remedial measure for treatment of toothache (7.2%). Among the study participants 42.7 percent told that they don't know about the hazards of tobacco, 33.4 percent told that consumption of tobacco leads to cancer (Table 4). Most (44.2%) of the study participants spent less than 100 rupees per month on tobacco, followed by 35.5% who spent between rupees 100-200. (Table 5) Twenty eight percent of study participants told that they use tobacco first thing in the morning. (Table 5) In our study most of the study participants (76.8%) told that they don't know the exact reason for consuming tobacco, 18.8% told that it increases bowel movement and 4.4% told that it decreases tooth ache**.** In this study majority of study participants told that they don't have any idea about economic impact of tobacco consumption on their family, 21.7% told it makes them poorer. (Table 6) Significant association was found between type of tobacco consumption and expenditure pattern. (Table 7).

Table 1: Socio-demographic profile of study participants

Variables	Total Subjects	Consuming tobacco	Prevalence (%)	$\chi 2$ p
Gender				
Male	204	89	43.6	14.018
Female	191	49	25.7	< 0.001
Total	395	138	34.9	
Religion				
Hindu	103	38	36.9	1.492
Muslim	285	99	34.7	0.474
Others	7	1	14.3	
Socio Economic Status				
Class I & II	57	18	31.6	34.197
Class III	260	71	27.3	< 0.001
Class IV	61	37	60.7	
Class V	17	12	70.6	
Type of family				
Nuclear	3	2	66.7	Fishure Exact test p = 0.280
Joint	392	136	34.7	
Education status				
Illiterate	167	72	43.1	14.848
1^{st} to 5^{th}	124	33	26.4	0.005
6^{th} to 10^{th}	74	24	32.4	

10^{th} – 12^{th} / diploma	20	9	45.0	
Graduate	9	0	0.0	
Marital Status				
Single	3	9	33.3	
Married	114	299	38.1	5.816
Widow	10	42	23.8	0.121
Widower	11	45	24.4	

Table 2: Distribution of study participants according to Type of tobacco consumption and tobacco use pattern.

Type of consumption		Percentage
Dentriface	37	26.8
Chewing	53	38.4
Smoking	48	34.8
Total	138	100
Method of chewing		
Plain tobacco	19	35.8
Gutaka	3	5.7
Pann	27	50.9
Khani / Jarda	4	7.6
Total	53	100
Type of Smoking		
Bidi	36	75.0
Cigarette	12	25.0
Total	48	100
Pattern of Tobacco use		
Light tobacco user	66	47.8
Heavy tobacco user	72	52.2
Total	138	100

Table 3: Distribution of study participants according to age of initiation and factors influencing the use of Tobacco.

Age group		Percentage
10 – 20 yrs	26	18.8
21 – 30 yrs	95	68.8
> 30 yrs	17	12.4
Total	138	100
Initiation factors for Tobacco use		
Family Members	24	17.4
Friends	83	60.2
Advertisements	25	18.1
Others	6	4.3
Total	138	100

Table 4: Distribution of study participants according to reason for continuing tobacco consumption and regarding knowledge about the hazards of Tobacco

Reason for continuation of Tobacco Consumption		Percentage
Tooth ache	10	7.2
Part of life	43	31.2
Hobby	71	51.5
Pleasure	5	3.6
Others	9	6.5
Total	138	100
Knowledge about the hazards of Tobacco		
Headache	0	0
Tooth decay	5	3.6
Respiratory ailments	18	13.1
CVS problems (Heart Attack)	10	7.2
Cancer	46	33.4
Don't Know	59	42.7
Total	138	100

Table 5: Distribution of study participants according to monthly expenditure on tobacco

Expenditure (Rs.)		Percentage
< 100	61	44.2
100– 200	49	35.5
>200	28	20.3
Total	138	100
Use tobacco 1st thing in the morning		
Yes	39	28.3
No	99	71.7
Total	138	100

Table 6: Distribution of study participants according perception regarding tobacco consumption and its economic impact.

Perception regarding Tobacco consumption		Percentage
Increasing bowel moment	26	18.8
Decrease tooth ache	6	4.4
Don't Know	106	76.8
Total	138	100
Economic impactof tobacco consumption		
Not make poor	16	11.6
Makes poorer	30	21.7
No idea	92	66.7
Total	138	100

Table 7: Distribution of study participants according to Association between Type of consumption and Expenditure pattern

	< 100 (%)	100 – 200 (%)	>200 (%)	Total
Dentriface	22(59.5)	10 (27.0)	5 (13.5)	37
Chewing	27(50.9)	21 (39.6)	5 (9.4)	53
Smoking	12(25.0)	18 (37.5)	18 (37.5)	48
Total	61	49	28	138

$\chi^2 = 18$, DF = 4, p = 0.001

Discussion

In our study prevalence of smoking was more in male participants (43.6%) compared to females. Other studies have also reported a higher prevalence of smoking in men than women [10]. Majority of the respondents in this study (65.2%) had the habit of consuming smokeless tobacco. According to GATS (Global Adult Tobacco Survey) the most prevalent form of tobacco usage is smokeless tobacco. Smokeless tobacco use in India is the highest in the world with 25.9% of the adults, 32.9% of men and 18.4% women, using it [11]. In this study among elderly respondents who use to consume smokeless form of tobacco 50.9% were pan consumers, 35.8% plain tobacco, 7.6%khani/Jarda and remaining 5.7% gutka. In a national survey conducted it was found that among smokeless forms of tobacco, khaini (tobacco with lime mixture) is the most prevalent form (11.6%) followed by Gutkha (8.2%) and betel quid with tobacco (6.2%) [12]. Global Adult Tobacco Survey (GATS) 2 has shown that the age of initiation of tobacco use has increased by one year in India (17.9 to 18.9) [12]. In our study among 138 tobacco users, 68.8% had initiated chewing tobacco between the ages of 21-30 years followed by 10-20

years (18.8%). In another survey they have concluded that people are most likely to begin to use tobacco as adolescents or young adults [13]. In this study more than 60.2% of study participants were of the opinion that friends had influenced them for initiation of tobacco followed by influence from the advertisements (18.1%). The reasons for continuation of tobacco use among the elderly were they considered it as a hobby (51.5%) as a part of life (31.2%) and as a remedial measure for treatment of toothache (7.2%). Studies have shown that youngsters are typically less concerned about risks to their health and are more likely to engage in risky behaviours [14]. In other studies they have concluded that youths are also highly susceptible to peer pressure and to advertising [15, 16]. They may also become addicted to nicotine more quickly than people who are older, even if they smoke only occasionally [17, 18].

Conclusion

There is widespread belief among elderly that smokeless tobacco use is less harmful than smoking. Such misconceptions can be nullified by strengthening the information, education and communication (IEC) activities and special health check-up camps with emphasis on improvement of health. An environment should be created in the community that help tobacco users who are willing to quit and those who quit should persuade and help others to quit the habit of tobacco. Anti-tobacco awareness programs needs to be scaled up. The prevention activity needs to focus on behaviour change through group or personal approach rather than just giving information through mass approach. Familial support and some cessation services should be provided to elderly who are not able to get sufficient support for themselves or from outside to quit the habit of tobacco use and to sustain it.

Acknowledgements

We are thankful late Mr. M.D. Mallapur, Assistant professor in statistics Department of Community Medicine, Jawaharlal Nehru Medical College, Belagavi. We thank Staff of Urban Health Centre Rukmini Nagar and all study subjects who participated in the study. The author is grateful to authors/editors/publishers of all those articles, journals and books from where the literature for this article has been reviewed and discussed.

References

1. World Health Organization. Confronting the tobacco epidemic in an era of trade liberation. Geneva: World Health Organization, 2003.
2. Gupta PC, Sinha DN. Tobacco research in India. Indian J Public Health. 2004; 48:103-4.
3. Bratzler DW, Oehlert WH, Austelle A. Smoking in the elderly: it's never too late to quit. J Okla State Med Assoc. 2002; 95:185-91.
4. Husten CG, Shelton DM, Chrismon JH, Lin YCW, Mowery P, Powell FA. Cigarette smoking and smoking cessation among older adults: United States, 1965-94. Tob Control. 1997; 6:175-80.
5. Gupta PC, Ray CS. Smokeless tobacco and health in India and South Asia. Respirology. 2003; 8(4):419-31.
6. Ambarish Pandey, Nivedita Patni, Sasmit Sarangi *et al*. Association of exclusive smokeless tobacco consumption with hypertension in an adult male rural population of India. Tobacco Induced Diseases. 2009; 5:15.
7. Townsend L, Flisher AJ, Gilreath T, King G. A systematic literature review of tobacco use among adults 15 years and older in sub-Saharan Africa. Drug Alcohol Depend. 2006; 84:14-27.
8. World Health Organization. Guideline for the conduct of tobacco smoking survey for general population. Document WHO/SMO/83.4. Geneva Switzerland; WHO, 1983.
9. Czoli Christine D, Fong Geoffrey T, Mays Darren, Hammond David. 2016 How do consumers perceive differences in risk across nicotine products? A review of relative risk perceptions across smokeless tobacco, e-cigarettes, nicotine replacement therapy and combustible cigarettes. Tobacco Control. 2016; 26(e1). tobaccocontrol-053060
10. Gupt R, Sharma S, Gupta VP *et al*. Smoking and alcohol intake in a rural Indian population and correlation with hypertension and coronary heart disease prevalence assoc Physicians India. 1995; 43:253-8.
11. Lal S, Mohan B, Punia MS. Health and social status of senior citizens in rural areas. Indian J community Med. 1997; 9:10-17.
12. Ministry of Health and Family Welfare: Global Adult Tobacco Survey India, 2010.
13. US. Department of Health and Human Services. Atlanta, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1994.
14. Steinberg L. Risk taking in adolescence: what changes, and why? Annals of the New York Academy of Sciences. 2004; 1021:51-58.
15. Hoffman BR *et al*. Perceived peer influence and peer selection on adolescent smoking. Addictive Behaviours. 2007; 32:1546-1554.
16. Pollay RW *et al*. The last straw? Cigarette advertising and realized market shares among youths and adults, 1979–1993. Journal of Marketing. 1996; 60:1-16.
17. DiFranza JR *et al*. Symptoms of tobacco dependence after brief intermittent use: the development and assessment of nicotine dependence in youth-2 study. Archives of Pediatric and Adolescent Medicine. 2007; 161:704-710.
18. Panday S *et al*. Nicotine dependence and withdrawal symptoms among occasional smokers. Journal of Adolescent Health. 2007; 40:144-150.