

Knowledge, Attitude and Behaviour of Tobacco Chewers Towards Oral Health Visiting Dental Institution in Dhule City, Maharashtra

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ABSTRACT

Objective: Tobacco use is a growing global public health problem. The adverse effects of tobacco use on health are well known. Smokeless tobacco is found to be as addictive and harmful as smoking. The objective of study was to assess tobacco use, awareness and attitudes towards tobacco and its control in adult population visiting dental institution for various dental problems in Dhule city.

Material and methods: A cross-sectional questionnaire based study was conducted among outpatients of dental institution in Dhule city. Data regarding the knowledge, form of tobacco used, frequency, duration and attitude towards stopping its consumption were collected. Statistical analysis was carried out using descriptive statistics and chi-square tests with Yates correction using Statistical software package (SPSS) version 19.

Results: Out of 100 tobacco chewers, 83% were males and 17% were females. Forty five percent of tobacco users thought that tobacco affects aesthetically and functionally. Chi-square tests were applied to analyse categorical data. There was statistically no significant ($p > 0.05$) association between age groups and gender, with respect to knowledge and attitude of tobacco consumption.

Conclusion: Despite being aware about risk of having multiple oral health problems, a major proportion of respondents were using smokeless tobacco. However study participants were reluctant to quit the tobacco habit in spite of knowledge and awareness towards its adverse effects on oral and general health.

Keywords: Smokeless tobacco, Functional disability, Esthetics.

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INTRODUCTION

Chewing tobacco is tobacco's body, smoke is its ghost and snuff is tobacco's soul. "The American-Indians were apparently the first to use tobacco in various forms (1). The Europeans introduced tobacco into South Asia in the 1600s, for pipe smoking and probably also as snuff (2). In 1604, King James I of England issued the first official condemnation of tobacco, "A counterblast to tobacco" in which he warned his subjects that the "habit of smoking tobacco is disgusting to sight, repulsive to smell, dangerous to brain and noxious to the lungs. "Sincethen a lot of response have been published on the effect of tobacco.

Smokeless tobacco products contain air- or fire-cured tobacco that is powdered or ground for use as nasal or oral snuff, cut and grated for use as chewing or oral snuff, or stripped and compacted for use as chewing tobacco (3). Tobacco are available in various forms which includes pan (piper betel leaf filled with sliced areca nut, lime, catechu, and other spices chewed with or without tobacco), pan-masala or gutka (a chewable tobacco containing areca nut), mishri (a powdered tobacco rubbed on the gums as toothpaste), pattiwala (sun-dried flaked tobacco with or without lime), zarda (mixture of tobacco, lime and spices). Dry snuff (tapkeer) now used mainly orally and creamy snuff or tobacco toothpaste, an industrially manufactured product advertised as antibacterial, is popular in western parts of India (4, 2).

Tobacco is the second major cause of death in the world. It contributes to 5 million deaths per year globally. This is expected to rise to 10 million tobacco deaths annually by 2025. One-fifth of all worldwide deaths attributed to tobacco occur in India (5). WHO emphasizes the rate of tobacco consumption especially

in developing countries like India as an epidemic (6).

The chewing of tobacco products can have a detrimental effect on oral cavity and appearance of people. Tobacco causes cancers of mouth, tongue, cheek, gums, throat and oesophagus. The commonest form of oral cancer - squamous cell carcinoma which accounts for 95% of all oral cancers. Tobacco can cause halitosis and leukoplakia (white sores in the mouth that can become cancer). Tobacco stains and discolours teeth, dentures and restorations. Smokeless tobacco users are prone to have abrasion (scratching and wearing down) of teeth, cavities and tooth decay. Receding gums (gums slowly shrink from around the teeth) and gum disease (gingivitis), bone loss around the roots of the teeth further tooth loss are the consequences of tobacco chewing. Also, tobacco can be damaging to both the initial and long-term success of dental implants (7).

Many individuals indulge into tobacco habit due to multiple factors like feel of grown up, peer pressure, influence of advertisement etc. leading to tobacco related diseases, however during routine clinical practice it was observed many visit dentists for regular cleaning of teeth. Smokeless tobacco consumption is highly prevalent among low socioeconomic individuals and in rural population (8). The present study setting geographically lies in rural hence the present cross-sectional study was undertaken to assess the knowledge, attitude and behaviour towards smokeless tobacco chewing among dental patients visiting dental institution in Dhule.

MATERIALS AND METHODS

This was a cross-sectional study, conducted from February 2015 to April 2015 among the outpatients visiting

dental institution in Dhule. Hundred tobacco chewers were randomly selected and sample is derived on the basis of average daily OPD at dental institution. Self-designed, pre-tested proforma was prepared to collect required and relevant information pertaining to our study. Proforma was prepared in local language (Marathi and Hindi) and distributed to the subjects who were relatively free. Sufficient time was given to complete the proforma, when subjects found difficulty in understanding and complete the proforma investigator (EM) herself explained and facilitated subjects to complete the proforma, only completed proforma were collected, tabulated and subjected to statistical analysis. The study protocol was approved by the institutional ethical committee. Eligibility criteria for the study were-

Inclusion Criteria

1. Smokeless tobacco chewers
2. Adults 18 years and above whom were willing to participate.

EXCLUSION CRITERIA

1. Smokers

Data collection

A self-administered questionnaire covered socio-demographic variables, highest level of education, occupation, tobacco chewing habit, duration and quantity, effects of tobacco functionally and or esthetically. Tobacco related health problems, attitude towards the tobacco control law were also collected.

Statistical analysis

All data was entered into SPSS V 19.0 for statistical analysis (Statistical Package for Social Sciences). Discrete variables were expressed as frequency and percentage distribution. Chi-square test with Yates correction where ever necessary was used to look for asso-

ciations between different sets of categorical data. A p - value less than 0.05 was defined as statistically significant difference.

RESULTS
Demographic Variables

The present study comprised of 100 tobacco chewers with the age groups of 18-60 years among 83% and 17% were males and females respectively. (Table 1) Majority (55%) of study participants were perceiving laborious work and 38% of participants was doing profes-

sional work. Out of 100 participants, 73% tobacco chewers had completed secondary and higher education (42% & 31%), while 15 % were illiterate.

Knowledge regarding ill effects of tobacco use

In present observational study, More than 80% of study participants had good knowledge regarding hazards of tobacco consumption.(Table 2). Statistically there was no significant (p > 0.05) difference between the age groups and gender,

Attitude towards tobacco chewing

Thirteen percent of tobacco chewers had opined that tobacco consumption is associated with grown up feeling, 68% consumed to attain focus during working hours, 16% in order to overcome orofacial pain while 15% did not thought it to affect family and society. The attitude of 22% tobacco chewers was that its chewing does not affecting functionally and aesthetically. (Table 3) There was statistically no significant (p > 0.05) difference between age groups and gender.

Attitude according Occupation type related to tobacco chewing which helps to attain focus during working hours.

Attitude towards tobacco between different occupation type was statistically highly significant p=0.001 (Table 4)

Behaviour of tobaccochewers

Majority opined that both functional and esthetical impairment due to tobacco habit will help to overcome the habit. Lack of perceived seriousness was the reason for not quitting the tobacco and many kept the tobacco at buccal mucosa and ate upto 5 packets per day

Table 1 : Demographic variables

Age group (in years)	18- 20	6(6.0%)
	21 to 40	62(62.0%)
	41to 60	27(27.0%)
	> 60	5(5.0%)
Gender	Male	83%
	Female	17%
Occupation	Professional	38.0
	Laborious	55.0
	Retired/ Unemployed	7.0
Education	Illiterate	15.0
	Primary	12.0
	Secondary	42.0
	Graduat	31.0

Table No 2: Knowledge of tobacco chewers

Knowledge that Tobacco consumption	Agree	Disagree	Don't Know
Q1 Tobacco is injurious to oral health	86(86%)	5(5%)	9(9%)
Q2 Statutory warning helped you to stop the habit	68(68%)	30(30%)	2(2%)
Q3 Is banned in public places	80(80%)	16(16%)	4(4%)
Q4 Results in oral related diseases	85(85%)	8(8%)	7(7%)
Q5 Portrays you as low profile in society	61(61%)	13(13%)	26(26%)

Table 3: Attitude of towards tobacco consumption

Attitude that Tobacco consumption	Agree	Disagree	Don't Know
Q6 Grown up feeling	13(13%)	67(67%)	20(20%)
Q7 Attained focus during working hours	68(68%)	28(28%)	4(4%)
Q8 Got relieved from orofacial pain	16(16%)	78(78%)	6(6%)
Q9 Affects family and society	85(85%)	14(4%)	1(1%)
Q10 a. Affect esthetically	26(26%)		
b. affects functionally	7(7%)		
c. Affects esthetically & functionally	45(45%)		
d. Does not affect	22(22%)		

Table 4: Attitude according occupation type related to tobacco chewing which helps to attain focus during working hours

Occupation Type	Helps to attain focus during working hours		Total
	Agree	Disagree / Don't Know	
Laborious	46(83.6%)	9(16.4%)	55(100%)
Professional	18(47.4%)	20(52.6%)	38(100%)
Unemployed	4(5.1%)	3(42.9%)	7(100%)
Total	68(68%)	32(32%)	100(100%)

χ^2 value =13.99, P value =0.001

DISCUSSION

Global Adult Tobacco Survey (GATS)-India clearly establishes that the public health problem posed by smokeless tobacco is significantly more than smoking (4) According to GATS India Report (2009-10) those using smokeless tobacco only (163.7 million) are more than double of those who are exclusive smokers (42.3 million) (9). The use of tobacco is harmful to general health, as it is a common cause of addiction, preventable illness, disability and death. The use of tobacco causes an increased risk of oral cancer, periodontal disease, oral mucosal lesions and

other deleterious oral conditions and it adversely affects the oral health care including esthetics. India also has one of the highest rates of oral cancer in the world and it has been partly attributed to high prevalence of tobacco chewing (9). The most affected are the rural and low socio-economic populations who prefer smokeless tobacco use, leading to further impoverishment from tobacco-attributed diseases (8).

In our study, a no of patients visiting a dental institution comprises of chronic tobacco chewers who seek dental treatment for various dental problems.

During oral examination it has been observed that more were concerned about the discoloured teeth even in the presence of functional disability caused by existing lesions in their oral cavity. When questioned regarding the adverse effects of tobacco, it revealed lack of perceived seriousness.

So, there is necessity for implementing educational interventions and tobacco cessations programs to control tobacco chewing. However it is important to have information regarding the tobacco use status of a particular region so as to initiate a program against tobacco use (6).

Demographic Variables:

The present study included participants between 18 to 61 year age group, 83% of males and 17% of females. In our study 73% tobacco chewers had completed their education. Educational status was significantly associated with tobacco use and the prevalence of tobacco consumption was highest among those women who were illiterate. Tobacco use has been found

Table 5: Behaviour of tobacco chewers

Behaviour of Tobacco consumption	Findings	No's(%)
Q11 Number of packet chew / day	1-5	87(87%)
	5-10	9(9%)
	>10	4(4%)
Q12 Place the tobacco in oral cavity at	Labial vestibule	29(29%)
	Buccal vestibule	41(41%)
	Chew and spit	30(30%)
Q13 Chew tobacco	Before Brushing	6(6%)
	After each meal/tea	43(43%)
	At regular interval	27(27%)
	Throughout day	24(24%)
Q14 Reasons for not overcoming the habit due to lack of	Supportive environment	10(10%)
	Perceived seriousness	90(90%)
Q15 Functional and esthetic impairment will make to stop habit	Agree	67(67%)
	Disagree	11(11%)
	Don't know	22(22%)

inversely proportional to income levels and literacy with highest tobacco use found amongst the poorest and least educated. Relatively poor and less educated population have more exposure to conditions predisposing them to tobacco use, have lesser awareness of the hazards of tobacco use and have higher risk taking behaviour. Similarly to our study, Literacy rate among the participants were very high at 95.7% with 44/5 % having education upto intermediate and more (5).

KNOWLEDGE

Our study demonstrated significantly higher knowledge scores about harmful effect of tobacco among users while in other study non-users had higher knowledge (14). Knowledge of harmful effects of tobacco (86%) in the study population was found to be comparable with a study done in Manipur (9).

In the current study a vast majority (85%) of the participants were aware about at least some health problem, but contrast observations were seen in study done in Kolkata, in Andhra Pradesh, Assam and Gujarat (5). Awareness of the hazards from use of smokeless tobacco (SLT) is very low amongst the rural populations; they believe SLT has actually medicinal values for curing or palliating common discomforts such as toothache, stomachache, and headache, further leading to its use through advice (8).

Health warnings on tobacco packages should be intense enough to create their impact. In our study we found that 68% of tobacco chewers knew statutory warning is helpful to stop the habit. In GATS India study, 10% of respondents believed that by only banning the products could quitting behaviour can be promoted (4).

In our study 80 % of population knew

tobacco chewing is banned in public places. Despite being aware of tobacco related law/act, they continued tobacco chewing habit while in other study only 47.5% of participants were aware of tobacco ban (5). 61% of tobacco users felt that tobacco chewing portrayed them as low profile in society.

ATTITUDE

In the present study, 13% tobacco chewers had attitude of grown up feeling associated with tobacco consumption. 83% of tobacco users chewed tobacco to attain focus during their working hours. The reasons for tobacco habits were highest for work, stress and peer pressure, similar to study conducted in dental institution of Mumbai (9).

Most rural population believe that tobacco chewing can relieve body pain or toothache (10). In our study, 16% of population chewed tobacco to overcome orofacial pain.

The attitude of 45% of tobacco chewers was that tobacco chewing affects functionally and esthetically. And 27% of tobacco users thought that it affects esthetically while 7% thought it affects functionally. This shows that the target population was not only unaware of oral health hazards of these habits but also they were least concerned for oral health as compared to general health (10).

Unfortunately, the relative scarcity of oral health facilities in rural areas of India could be a factor in exacerbating this situation. Thus it is recommended that health education programmes are required more often and these education programmes must incorporate information related to oral health hazards of these risk behaviours (10).

BEHAVIOUR

The frequency of tobacco chewing was

found to be high with daily consumption being reported by majority of tobacco users followed by occasional and weekly use (6). In our study 87% of tobacco chewers regularly chewed 1 to 5 packets per day while 4% chewed more than 10 packets per day.

Majority tobacco chewers [70 %] placed the tobacco at the buccal vestibule (41%) or labial vestibule (29%) while 30% chewed and spat tobacco immediately. 90% of tobacco chewers didn't overcome their habit due to lack of perceived seriousness from tobacco. This shows that knowledge and attitude about harmful effect of tobacco had failed to overcome the tobacco habit. Perhaps people perception about the non-life-threatening dental diseases, difficulty in overcoming tobacco dependence and neglecting the oral component of the overall health might have resulted in continuation of the habit (11). In GATS India study 26% of respondents believed that the community residents would quit the addiction only if they personally experience health problems (10).

67% tobacco chewers agreed that functional and esthetic impairment will make them to stop the habit while remaining 33% tobacco chewer thought that it would also not help them to stop the habit or were not sure of it.

Limitations

Sample size of the study was small and limited to patients visiting Dental Institution and hence cannot be generalised to the rest of the Dhule population.

CONCLUSION

It is evident that in spite of being aware of the risks of multiple health problems, a major proportion of respondents were using smokeless tobacco. They also had a good knowledge about oral health effects of tobacco, but they

were ignorant about their detrimental functional changes; concerned only about their esthetics. Irrespective of having good knowledge their attitude towards quitting didn't change. Hence a concerted effort has to be made to increase the awareness of the harmful effects of tobacco chewing.

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