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AWARENESS AND ATTITUDE OF THE PATIENTS REGARDING THE ILL-EFFECTS OF TOBACCO USE ON ORAL HEALTH - A CROSS-SECTIONAL STUDY CONDUCTED IN A DENTAL COLLEGE AND HOSPITAL IN INDIA

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ABSTRACT:

Aim: Assessment of awareness of ill-effects of tobacco use on oral health in patients visiting a dental college and hospital in India.

Objectives:

1) To assess patient's attitude and behaviour towards tobacco control and their willingness to quit tobacco use.
2) To assess the awareness of tobacco use and its ill-effects.

Materials And Methods: A cross-sectional questionnaire based study was conducted among the patients visiting a Dental college and hospital in India. The study population comprised of 510 patients with a history of tobacco use either in smoke or smokeless tobacco forms. A pre-designed and pre-structured questionnaire was used for interview purpose to collect all the relevant information regarding the awareness of ill-effects of tobacco use on oral health and other characteristics of importance. The data so obtained was analysed using relevant statistical methods in consultation with a statistician.

Results: The results of the study revealed that 89.2% of the male patients and 10.8% of the female patients reported of tobacco use either in smoke or smokeless form. Time-pass (33.6%) and stress(32.8%) were the common reasons for developing the habit. Addiction(42.8%) was the main reason for continuing the tobacco habit. Only 11.8% of the patients tried to quit tobacco due to health problems(57.11%). More than half of the patients are uncertain of the ill-effects caused by tobacco and are indecisive of quitting the habit after knowing the ill-effects.

Conclusion: Most of the patients had an unfavourable attitude towards quitting tobacco usage. Hence there is an urgent need to intervene effective steps especially by carrying out community based educational programs by health professionals in collaboration with print and media in spreading awareness about the consequences of tobacco use and on counselling of patients for cessation of the habit to prevent pre-cancerous conditions.

Key words: Tobacco, quitting, awareness, counselling, cessation.

INTRODUCTION:

The famous saying "It is health which is real wealth and not pieces of gold and silver" as said by Mahatma Gandhi is

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absolutely true. Good health is a matter of great concern, to maintain it, healthy living and disciplined life is a must. But in the present scenario, people in search of ephemeral joy and pleasure are insouciantly indulging in various deleterious habits of which tobacco and alcohol are majorly devastating the overall health and well being of a person. The emergence of tobacco related diseases is an escalating public health problem that is haunting people today globally.

Tobacco use either in smoke or smokeless form is an exclusively leading colossal avertable cause of illness and premature deaths in the world today. According to World Health Organisation 2008, tobacco epidemic is responsible for 5.4 million global deaths annually. [1] In India, tobacco-attributable mortality has been estimated to be one million every year and projected to be 1.5 million in 2020. [2] If current trends continue tobacco will account for 13% of all deaths by 2020. [3] Recent Global Adult Tobacco Survey (GATS), 2009-2010 identified India as the world's second largest consumer of tobacco with almost 275 million tobacco users. [4] As per the national health survey 57% of Indian men and 11% of women are tobacco consumers and an estimated 55,000 adolescents are initiated into tobacco use every day. [5]

Tobacco is consumed in both smoking and smokeless forms such as gutka, khaini, pan masala, zarda, betel quid, areca nut, cigarettes, hookah, bidis. Epidemiological research over the past several years has confirmed the harmful effects of tobacco consumption. [6] Tobacco smoking and chewing can have a detrimental effect on general health causing cardiovascular diseases, strokes, chronic obstructive pulmonary diseases, infertility, bone thinning causing fractures and cancers of throat, mouth, nasal cavity, oesophagus, stomach, pancreas, kidney, bladder, cervix as well as acute myeloid leukaemia. [7] Oral health is always an inseparable part of general health. Tobacco can have an irretrievable effect on a person's oral health associated with numerous dental problems ranging from tooth discoloration, gingivitis, periodontal diseases, attrition, sensitivity, burning sensation of mouth, restricted mouth opening, ear problems, ulcerations, delayed healing, premalignant red and white lesions progressing to potentially malignant disorders, oral cancer finally leading to death. [8] Areca nut chewing has been associated with oral mucosal lesions like oral submucous fibrosis and oral leukoplakia which has the potential for malignant transformation. [9]

The most commonly cited risk factors in the aetiology of oral cancer are tobacco and alcohol. [10] Various investigations in India reveal that tobacco and alcohol act synergistically in oral carcinogenesis and that persons with mixed habits form a substantially high risk population. [11] Approximately 90% of mouth and throat cancers are attributed to tobacco use. In order to curb this growing epidemic, it is of paramount importance to assess the

knowledge, attitude and awareness of tobacco user regarding the ill effects and tobacco quitting. It is the responsibility of health professionals to educate them of the harmful effects and guide them towards the tobacco cessation.

Though different organisations had been trying to curb the tobacco use habit in people by taking various measures, many patients are still been continuing with the habits. Hence a cross-sectional study was planned to know the attitude and awareness of ill-effects of tobacco use on oral health in those patients with deleterious habits.

METHODOLOGY:

A descriptive cross-sectional questionnaire based study was carried out among the patients attending the department of oral medicine and radiology in a dental college and hospital in India. A non-probability sampling method called convenience sampling technique was employed for the selection of participants as it allows the researcher to better obtain the basic data pertaining to the study. The study population comprised of 510 patients with a past history and current use of smoke or smokeless form of tobacco usage. All the patients irrespective of their age group with the habit of tobacco use were included in the study only after clearly explaining the purpose of study and procuring informed consent from them. The ethical clearance had been taken from Ethical committee of the institute.

The study comprised of an interview to complete a pre-designed and pre-structured questionnaire that was prepared to collect all the relevant information regarding the deleterious habits and characteristics of importance. Only those patients with tobacco use were given a questionnaire consisting of 14 questions. Each question given in the questionnaire was a closed ended one with single answer. The questions included in the questionnaire were developed from several self report measures used by the authors in various studies that tested the attitude and awareness of tobacco on oral and general health. The questions were asked by the investigator after a routine dental check-up.

Questionnaire consisted of questions regarding patients age, sex, form of tobacco used, alcohol consumption, reasons for developing and continuing the habit, quitting attempts, quitting reasons, awareness of warning sign on tobacco products, awareness of ill-effects of deleterious habits and patients attitude towards tobacco control and their willingness to quit the tobacco habit.

Data was entered into the computer,(MS Excel, MS Word) and Statistical Package for Social Sciences (SPSS), version 16 was employed for data analysis. The descriptive statistical analysis was done on proportional percentage basis.

RESULT

The study population comprised of total 510 patients with tobacco use of which 455 (89.2%) were males and 55 (10.8%) were females.

Table. I, describes the prevalence of tobacco use according to gender. Arecanut (33.6%) was reported as the most common habit in females than in males (6.8%). Chewing tobacco (67.8%), smoking (27.1%), alcohol (94.3%) were significantly higher in males compared to females.

Time-pass (33.6%) was reported by majority of patients followed by stress (32.8%) as reasons for developing the habit. To a lesser extent friends, social gatherings, parents, favourite actor/actress idealization were given as other reasons for getting into the habit (fig. I).

Only 25.5% of the patients were aware of the deleterious effects caused by tobacco. Of these patients majority of them reported addiction (42.8%) followed by stress (27.7%) as the reasons for continuing the habit even after knowing that it has deleterious effects (Table. II).

Out of the 510 patients only 11.8% of them tried to quit the habit once and 0.8% of them did twice. Health reasons (57.1%) being the common reason followed by family reasons (20.6%), religious reasons (14.3%) and social reasons (7.9%) for quitting the habit (fig. II). However, when all the patients were questioned about their willingness to quit the deleterious habits only 25.9% were willing to quit (Table. III).

Of the entire study group only 40.1% of patients were aware that, these deleterious habits cause oral cancer (fig. III). When questioned about the warning sign on tobacco products, 87.2% of them were aware of the sign on them but reported addiction (50.5%) as the major reason for still continuing the habit in spite of knowing the warning sign. Other reasons being friends association (24.2%) and some of them ignored it (12%). Finally, overall 39.1% of the patients admitted that government should ban tobacco use in India.

DISCUSSION:

The scarce literature on dental health awareness, attitude, oral health, behaviours among the population in relation to deleterious habits in India prompted us to take up this study on the patients visiting the department of oral medicine and radiology in a dental college & hospital that had all the age groups of people under one roof.

Tobacco consumption being the most common cause of oral cancer in India, is been ascending by 3.4% annually. Irrespective of the gender, men even women of all the ages are being prodigiously involved in various deleterious habits, the final outcome of which is inevitably leading to ill-health. Our study showed that among 510 patients with tobacco use majority of them were males (89.2%) which is in accordance with other studies. [12],[13]

The study participants were divided into four groups based on the type of tobacco habit into areca nut chewers, smokeless tobacco chewers, smokers and alcoholics. Areca nut is also one of the prime risk factor responsible for oral precancerous lesions hence incorporated in our study as a deleterious habit along with tobacco and alcohol. [14] In the present study the data on distribution of study groups according to habits and gender showed that areca nut habit (43.6%) was much higher in females, which is consistent with other study. [15] Smokeless tobacco chewing (67.8%) and smoking (27.1%) were more common in males which are in accordance with the previous studies, [15], [16] also it was found that alcohol consumption was higher in males (94.3%) than in females (1.8%) as similar to a study done by Ruchi et al (2012) [17]. Majority of patients in our study were smokeless tobacco users which is in accordance with the findings of the study by sharmila et al. [18] This finding can be corroborated or strengthened by the fact that smokeless tobacco forms are available in low cost and in readily prepared form.

The most common reason for developing these deleterious habits as cited by the study population was for time pass (33.6%) followed by stress (32.8%). Other related studies have reported similar type of findings. [19] Very small percentage attributed their starting of this habit from friends (16.6%), social gatherings (11.1%), parents(4%) and favourite actor/actress (2%) findings of which are contrary to the studies conducted by some authors. [20],[21] This difference could be due to the fact that their study population consisted of younger age groups such as students, hence were more attracted towards the habit by friends, parents and society.

Out of the data recorded from 510 tobacco users, 62.1% of patients were not sure of the deleterious effects caused by tobacco with only 25.5% of patients knowing that tobacco causes deleterious effects in oral cavity of which, 42.8% of the patients continued the habit without quitting due to addiction as the main reason which commensurate with the study conducted by Harini priyam. [22] In most of the earlier studies [23], [24] health concern was the most important reason cited by tobacco users for quitting the tobacco habit. These are in accord with our present study in which 11.8% of patients tried to quit the habit only once, 0.8% twice due to various reasons of which health reasons was the most common one (57.11%) followed by family reasons (20.6%). This shows that even though patients know that they need to stop the habit, they terminated only when they encountered a problem and some also ended up continuing the habit due to various reasons. Hence these have to be worked upon while planning on cessation programs.

87.2% of the patients were aware of the warning sign on the tobacco products. Despite of knowing the warning sign majority of the patients (50.5%) visiting the hospital demonstrated addiction to

tobacco use as the main reason for continuing the habit, the findings of which are in concordance with the study conducted by GN Karibasappa et al. [25] It is perspicuous from the above that there is a lack of firmness in attitude of patients to stop the habit and an overwhelming desire of having tobacco in spite of the general awareness about the harmful effects. Therefore strong initiative and educational interventions by health professionals along with print and media are imperative to eliminate these habits among all age groups.

CONCLUSION:

After completing the study, it is discernible on the basis of our findings that majority of the study population are heedless about different ill-effects of tobacco use on oral health. Thus, there is an exigent need for targeted and focussed tobacco use interventions by adopting a comprehensive approach actively and stringently. There are several ways of promoting awareness like conducting public health education campaigns by health professionals, delivering health education to masses with the help of various communication media like television, radio, newspapers, films, posters, lecture demonstration series, peer counselling, establishing rehabilitation centres. Also, the pictorial warnings and messages on tobacco products must be in such a way that they should make people aware that tobacco use can cause serious illnesses and has the potential to kill the user. There are also many cost effective tobacco control measures that can have a significant impact on tobacco consumption like bans on direct or indirect tobacco use advertising, banning of all subsidies and government financing supporting tobacco products, increasing tobacco tax and price measures, smoke free environments in public and work places. These have been included in the provisions of WHO framework convention on tobacco control recently. Although the government is implementing many such awareness initiatives, massive potent eradication strategies are imperative and obligatory to resolve this burgeoning public health concern.

REFERENCES:

1. World Health Organization. WHO report on the global tobacco epidemic. Geneva: World Health Organisation 2008:1-342.
2. Jha P, Jacob B, Gajalakshmi V, Gupta PC, Dhingra N, Kumar R, et al. A nationally representative case-control study of smoking and death in India. N Eng J Med 2008;358:1137-1147.
3. Shimkhada R, Peabody JW. Tobacco control in India. Bull World Health Organ 2003;81:48-52.
4. Global adult tobacco survey collaborative group. Global adult tobacco survey (GATS): Core Questionnaire with optional questions, version2.0. Atlanta, GA. Center for disease control and prevention 2010: 1-66.
5. International Institute for Population Sciences (IIPS) and Macro International.

National Family Health Survey India. IIPS, Mumbai 2007.

6. Bartal M. Health effects of tobacco use and exposure. Monaldi Arch Chest Dis 2001; 56: 545-554.
7. Ezzati M, Lopez AD, Rodgers A, et al. Selected major risk factors and global and regional burden of disease. Lancet 2002; 360: 1347-1360.
8. Warnakulasuriya S, Johnson NW, van der Waal .Nomenclature and classification of potentially malignant disorders of the oral mucosa. J Oral Pathol Med 2007; 36: 575.
9. Maher R, Lee AJ, Warnakulasuriya KA. Role of areca nut in the causation of oral submucous fibrosis: A case control study in Pakistan. Journal of Oral Pathology and Medicine 1994; 23: 65-69.
10. Sankarnarayanan R. Oral cancer in India: An epidemiology and clinical review. Oral Surg Oral Med Oral Pathol 1990; 69:325-330.
11. Blot, W.J.; McLaughlin, J.K.; Winn, D.M.; et al. Smoking and drinking in relation to oral and pharyngeal cancer. Cancer Research 1988; 48:3282–3287.
12. Katz A, Goldberg D, Smith J, Trick W. Tobacco, alcohol and drug use among hospital patients. Concurrent use and willingness to change. J Hosp Med 2008 Sep; 3(5):369-375.
13. Vellapally S, Jacob V, Smejkalova J, Shriharsha P, Kumar V, Fiala Z. Tobacco habits and oral health status in selected indian population. Cent Eur J Public Health 2008 Jun; 16(2):77-84.
14. Maher R, Lee AJ, Warnakulasuriya KA. Role of areca nut in the causation of oral submucous fibrosis: A case control study in Pakistan. Journal of Oral Pathology and Medicine 1994; 23: 65-69.
15. D Sujatha, Pragati B Hebbar, Anuradha Pai. Prevalence and Correlation of Oral Lesions among Tobacco Smokers, Tobacco Chewers, Areca Nut and Alcohol Users . Asian Pacific Journal of Cancer Prevention 2012 :13
16. Rani M, Bonu S, Jha P, et al .Tobacco use in India: prevalence and predictors of smoking and chewing in a national cross sectional household survey. Tobacco Control 2003; 12: 4.
17. Ruchi Nagpal, Neeraj Nagpal, Monica Mehendiratta, Charu Mohan Marya, Amit Rekhi . Usage of Betel Quid, Areca Nut, Tobacco, Alcohol and Level of Awareness towards their Adverse Effects on Health in a North Indian Rural Population. OHDM 2014; 13 (1).
18. Sharmila P, Mangesh P, Majmudar P, Nilesh I, Savita G. An Integrated Approach to Worksite Tobacco Use Prevention and Oral Cancer Screening Among Factory Workers in Mumbai, India. Asian Pacific Journal of Cancer Prevention 2012; 13: 527-532.
19. Khan NS, Ravishankar TL. Factors associated with initiation of tobacco use among adolescent students of Moradabad (UP) .India.Journal of Pierre Fauchard Academy 2008; 22: 63-67.
20. Ary DV, Lichtenstein E, Severson HH. Smokeless tobacco use among male adolescents: Patterns, correlates, predictors, and the use of other drugs. Prev Med 1987;16:385-401

21. Tobacco chewing and associated factors among youth of Western Nepal: A cross-sectional study Indian Journal of Community Medicine 2011; 36(2):128-132.
22. Harini priyam M, Sham S Bhat Prevalence knowledge and attitude of tobacco use among health professionals in mangalore city, karnataka . J Oral Health Comm Dent 2008;2(2):19-24
23. Marques-Vidal P, Melich CJ, Paccaud F, Waeber G, Vollenweider P. Prevalence and factors associated with difficulty and intention to quit smoking . BMC Public Health 2011; 11: 227
24. Halpern M, Warner K: Motivations for smoking cessation: a comparison of successful quitters and failures. Journal of Substance Abuse 1993; 5: 247-256.
25. GN Karibasappa, L Nagesh, GV Usha, Savithra Prakash. Assessment of wareness about pictoral warnings on tobacco products among 15 years and above age in Daavangere city, Karnataka, India - Cross sectional study. Indian J Stomatol;2011:227-32

FIGURES:

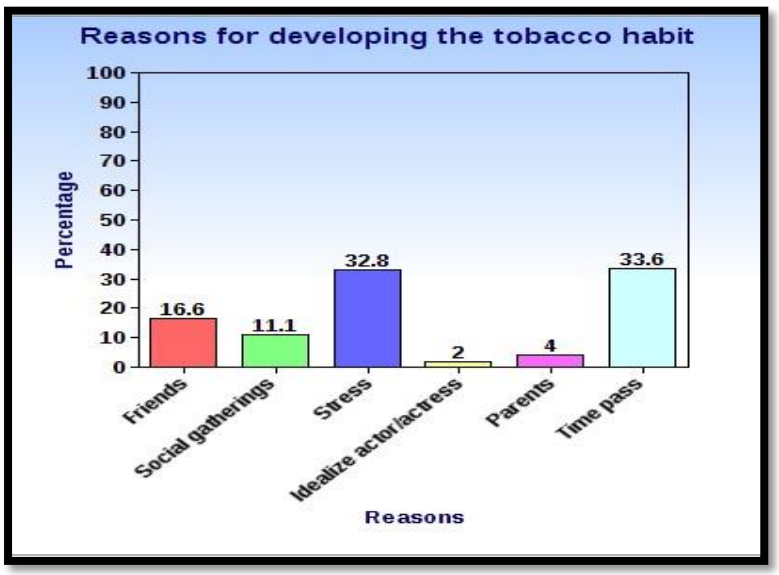

Fig. I Reasons for developing the tobacco habit

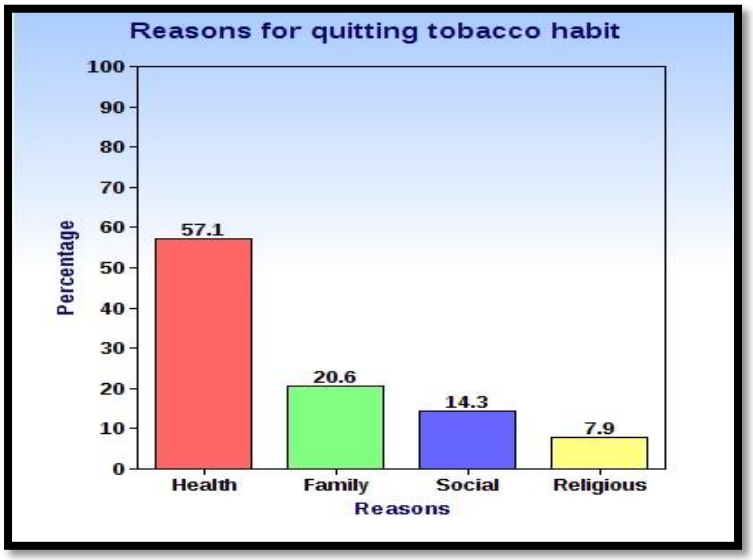

Fig. II Reasons of the study group to quit the tobacco habit

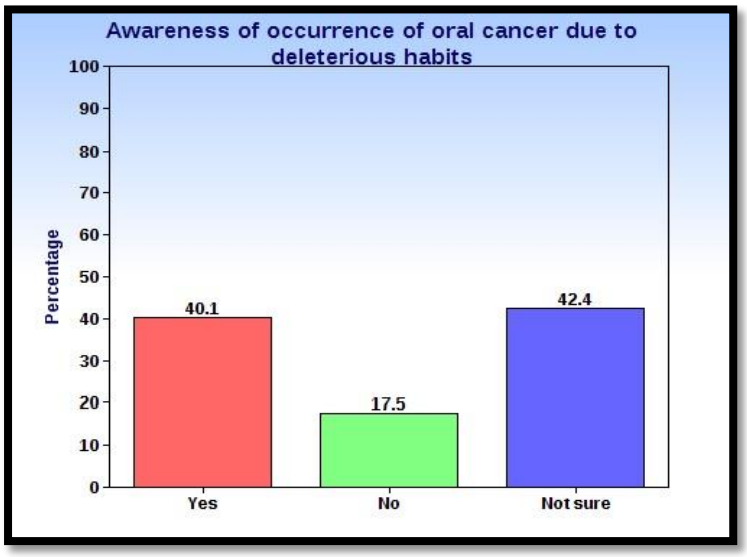

Fig. III Awareness of occurrence of oral cancer

TABLES:

HABIT		Gender			
		Female		Male	
		N	%	N	%
Areca	Absent	31	56.4%	423	93.2%
	Present	24	43.6%	31	6.8%
Tobacco Chewing	Absent	26	47.3%	146	32.2%
	Present	29	52.7%	308	67.8%
Smoking	Absent	54	98.2%	331	72.9%
	Present	1	1.8%	123	27.1%
Alcohol	Absent	54	98.2%	26	5.7%
	Present	1	1.8%	428	94.3%

Table. I Distribution of study group according to habit and gender

Reasons to continue	N	%
1. Got habituated	139	27.3%
2. Got addicted	218	42.8%
3. Stress reliever	141	27.7%
4. Don't know	11	2.2%

Table. II Reasons for continuing the tobacco habit after knowing the ill-effects

		N	%
Yes	1	132	25.9%
No	0	95	18.7%
Not sure	2	282	55.4%

Table. III Number of times people in the study group tries to quit the habit