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## Research Article

# APPRAISEMENT OF ATTITUDE AND PRACTICE TOWARDS TOBACCO TERMINATION SUPERVISED AMID OUT-PATIENTS OF A DENTAL COLLEGE: A CROSS-SECTIONAL SURVEY

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### ABSTRACT

Tobacco consumption is an inimitable cause of morbidity and mortality in the world. It currently accounts for over 4 million deaths annually, which is projected to rise to 10 million by 2030, with 70% of deaths occurring in developing countries. Nearly, 1 million people in India, die per annum due to use of tobacco in various forms (Bidi, pan masala, gutkha, khaini and areca nut). Objectives of study were to assess participant's demographic profile, prevalence and practice towards various tobacco forms and their attitude towards tobacco cessation. The production and easy availability of tobacco products in Chhattisgarh state makes tobacco easily approachable for residing population. Result showed a majority of 74% tobacco consumption rate among participants. 50.5% had little awareness regarding diseases associated with tobacco use followed by 55.5% of subjects who remained neutral regarding their attitude towards tobacco cessation.

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## INTRODUCTION

Tobacco consumption is a major preventable cause of premature death and disease, currently leading to over 5 million deaths each year worldwide which is expected to rise to over 8 million deaths yearly by 2030 (Patle AR *et al*, 2014). Tobacco cultivation started 8000 years ago and it contains more than 4,000 chemicals including carcinogenic compounds and 400 other toxins (Malhi R *et al*, 2015). Europeans were the first who introduced tobacco. In India, tobacco was established in 17<sup>th</sup> century by Portuguese in Goa (Malhi R *et al*, 2015). India is the second largest consumer of tobacco in the world after China, with 275 million adults consuming different tobacco products (Malhi R *et al*, 2015). Addiction to tobacco in the form of tobacco smoking or chewing is very common in every age group in India (Patle AR *et al*, 2014). The prevalence of tobacco use among males is 48% and among females is 20% as shown in Figure 1.

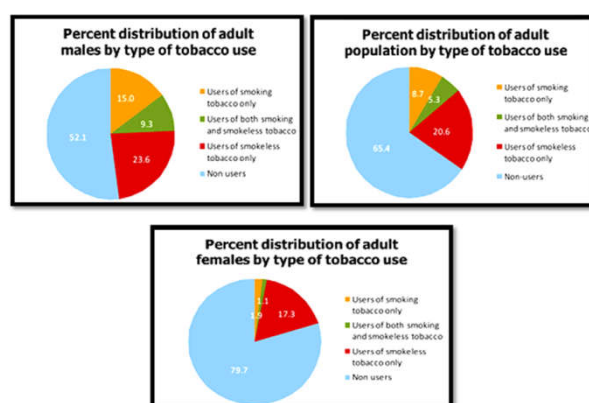


Figure 1 Percentage distribution of adult Tobacco use in India

Tobacco in India is used in many forms like cigarettes and beedi (tobacco wrapped in dried leaves of special trees), chewing pan (mixture of lime, pieces of arecanut, tobacco and spices wrapped in betel leaf), gutkha or pan masala (scented tobacco mixed with lime and arecanut, in powder form), and mishri (a kind of toothpaste used for rubbing on gums) (Patle AR *et al*, 2014). The majority of smoking related deaths in India occur in the prime working age group of 15-59 years. Smokeless tobacco use is highly addictive and causes cancer of

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the head and neck, oesophagus and pancreas, besides many other oral diseases. Tobacco consumption is not only associated with ill-health, disability and death from non-communicable chronic disease, but it also increases the risk of death from communicable diseases (Saroj G *et al*, 2017). The production and consumption of tobacco is high in Chhattisgarh state, this study was conducted to assess and evaluate the attitude and practice towards tobacco cessation among out-patients visiting Rungta College of Dental Sciences and Research, Bhilai, Chhattisgarh.

**MATERIALS AND METHODS**

A cross-sectional study was conducted at Rungta College of Dental Sciences and Research, Bhilai, Chhattisgarh over a period of one month from August to September 2017, among 200 subjects with age ranging from 21-60 years. The study population comprised male and female out-patients visiting the Oral Medicine and Radiology department. Subjects with history of tobacco use were only included. Participants were interviewed using a close-ended, pre-tested and validated questionnaire based on the Global Adult Tobacco Survey (GATS version 2.0, 2010) (GATS, Atlanta, GA: CDC, 2010) which was modified to make it more amenable for filling to assess the patient’s attitude towards tobacco customs and willingness to quit tobacco habits. The reliability of the questionnaire was assessed in a pilot study conducted among 30 participants who were not included in the main study, using Cronbach’s alpha which was scored (0.80).

The questionnaire used for interviewing the participants was available in English. The respondents were informed about the purpose of the survey and asked to voluntarily participate in the study. Prior written consent was obtained and confidentiality of their information was assured. The questionnaire composed of five sections containing close-ended questions. It consisted of questions related to demographic data (Gender, age, marital status etc.), prevalence and type of tobacco practices, attitude towards tobacco use, tobacco cessation and their willingness to quit tobacco-related habits. Most questions were MCQ’s type and answerable by choosing options among, ‘disagree’, ‘undecided’ or ‘agree’. Sufficient time was allotted for filling the questionnaire to get the maximum response rate. Eventually, the collective information of the questionnaire obtained from the respondents was saved in the Microsoft Excel Spreadsheet for windows.

**Statistical Analysis**

The statistical analysis was carried out using Descriptive statistics and Chi-square Tests using Statistical Package for Social Sciences (SPSS) version 17. Frequency tables, descriptive statistics and graphs were used to present the data. Further statistical analysis was done using Chi-square test for association between attributes. A significant *p*-value of <0.05 was considered statistically significant.

**RESULTS**

**Socio-Demographic Profile**

A questionnaire based survey was conducted among 200 participants visiting the out-patient department of Oral Medicine & Radiology department. Among them 94% gave history of using smoked or smokeless form of tobacco. Data

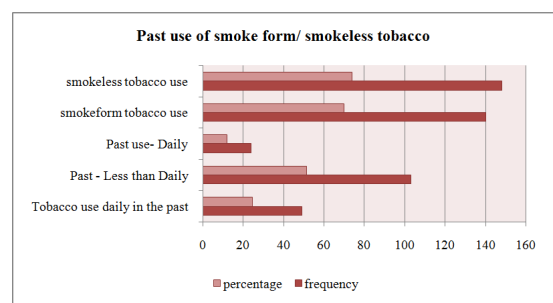
summarized in Table 1 showed, 73% out of total subjects to be males and 27% to be females. 52% respondents were in the age group of 21 to 30 years. Marital status showed tobacco consumption to be more common among 70% married as compared to 30% bachelors. Occupational status revealed 58% employees reporting the highest tobacco use followed by 22% housewives. Educational status revealed a peak incidence of 65% tobacco consumption rate among higher secondary students in comparison to the school drop-outs.

**Table 1** Socio-demographic Profile of Out-patients

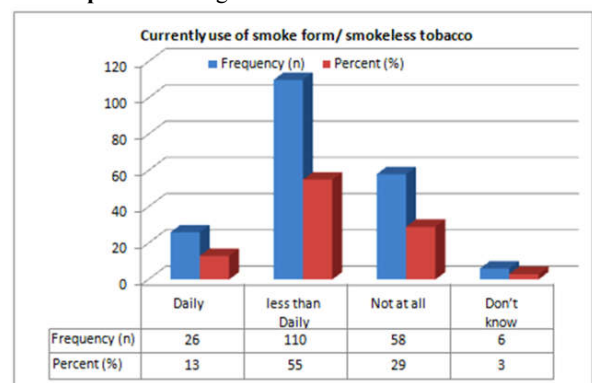
Criteria	Frequency (n)	Percent (%)	
1. Age	21- 30 yrs	78	39
	31 – 40 yrs	50	25
	41 – 50 yrs	43	21.5
	51 – 60 yrs	29	14.5
2. Gender	Male	146	73
	Female	54	27
3. Marital Status	Married	140	70
	Unmarried	60	30
	Unemployed	3	1.5
	Student	34	17
4. Occupational Status	Employed	115	57.5
	Housewife	43	21.5
	Retired	5	2.5
	No Schooling	2	1
5. Education	Primary School	18	9
	Secondary School	51	25.5
	Higher Sec. School	129	64.5

**Prevalence & Type of Tobacco Habits among Out-Patients**

80% of participants reported of tobacco use, of which 70% were only smokers (cigarettes, beedi etc.) and 74% consumed smokeless forms which was at an upper limit as compared to smokers. Majority of respondents practiced various forms of smoked/smokeless tobacco with more than half, 52% who consumed tobacco less than daily in the past and 22.5%, having consumed tobacco on a daily basis as shown in Graph-1. Current status on subject’s implementation towards tobacco use as depicted in Graph-2 revealed 55% to have consumed tobacco less than daily followed by 29% who never consumed tobacco.



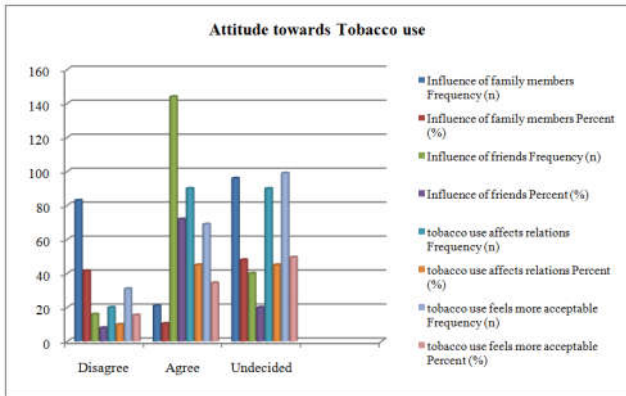
**Graph 1** Past usage of Smoked or Smokeless Tobacco



**Graph 2** Current usage of Smoked or Smokeless Tobacco

**Attitude towards Tobacco use**

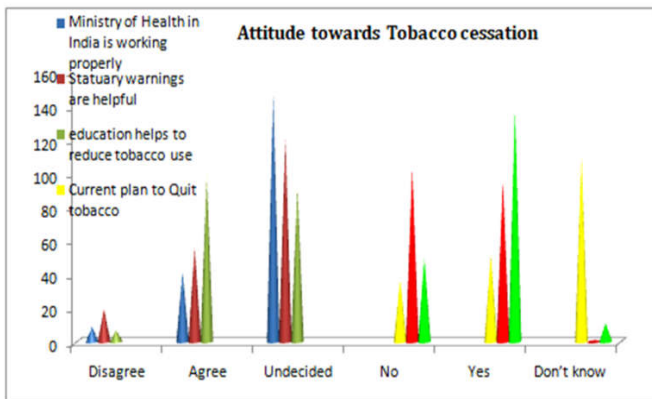
The influence of tobacco on the subjects and their outlook towards its addiction is anticipated to be due to various tobacco trends in the society. 72% of participators attributed their habitude towards tobacco to be the domination by friends as shown in Graph-3, followed by 61% who were hesitant about their acceptance in the society with tobacco traits.



**Graph 3** Out-patients Attitude towards Tobacco use

**Attitude towards Tobacco cessation**

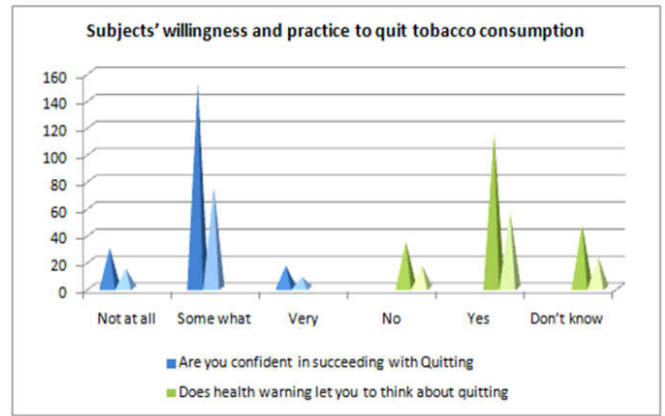
Cessation of tobacco is considered as one of the important links of tobacco control as it leads current users towards tobacco check in a scientific manner. 62.5% contributors agree that education creates awareness in the society to curb tobacco customs while majority remained undecided regarding the steps taken by the Ministry of Health in India to constrain and limit tobacco dependence as depicted in Graph-4.



**Graph 4** Out-patients attitude towards Tobacco cessation

**Subject's Willingness towards Tobacco Cessation**

According to Graph-5, 97% respondents showed slight confidence towards tobacco liberation followed by 59% showing a positive attitude concerning the attention created by health warning labels on cigarette packets and tobacco pouches that led them towards tobacco discontinuation.



**Graph 5** Out-patient's willingness towards Tobacco cessation

**DISCUSSION**

Tobacco intake in any form (smoked/smokeless) poses as a significant risk factor for a number of chronic diseases, including cancer, lung diseases, and cardiovascular diseases (Abdulateef SD *et al*, 2016, NTCP-MoHFW). According to Global Adult Tobacco Survey Collaborative Group (GATS) 2010, 48% of tobacco prevalence is observed in males as compared to females with only 20% of incidence (NTCP-Ministry of Health & Family Welfare).

The extent of tobacco exercise among adults (15 years and above) is 35% with the overall occurrence of 48% among males in contrast to 20% found in females. Nearly two in five (38%) adults in rural area and one in four (25%) adults in urban area use tobacco in some form (Kaur J *et al*, 2011). This data is in correlation to the present study, showing significantly greater degree of consumption in males (73%) as compared to females (27%). Current study observed these habits between the age group of 21 to 30 years (39%) followed by 31 to 40 years (25%) and least among those over 60 years (15%) which is in agreement to a study conducted by Hussain JS *et al*, reporting 25 to 44 years aged patients to have lower rates of tobacco habits (Hussain JSA *et al*, 2013).

The following questionnaire based survey conducted on 200 participants unveiled that a majority of 80% tobacco users were males, which are in accordant with the other studies. The frequency of tobacco consumption in smoked form (24.3%) and smokeless form (33%) was foremost among males in juxtaposition to females. In India, with cultural diversity and ethnicity, even today it is a social norm that men predominantly smoke and habitually consume tobacco whereas women or young girls use more of smokeless tobacco forms (Hussain JSA *et al*, 2013).

Information on marital status revealed, 70% of the tobacco consumers to be married followed by 30% to be single with 58% being employed and 22% to be housewives. Occupational status showed a greater frequency of tobacco usage in the employed (58%) than the other working groups. This represents tobacco usage as an aristocracy icon in the society. The educational status revealed, 1% of the tobacco users to be either illiterate or have not completed their primary schooling followed by 25.5% to have completed only secondary schooling which is in correlation to a study observed in Turkey stating most of the smokers to have completed only 5 years of primary education. Similarly, a case-control study conducted

on patients in Kerala demonstrated non-tobacco users to be more educated as compared to tobacco users reasoning the source of ubiquitousness of tobacco habits to be paucity of education which subsequently leads to financial burden and employment inconvenience. Hence, the results found were statistically significant  $p < 0.001$  (Hussain JSA et al, 2013).

The existing study observed that out of total contributors, 55% consumed tobacco less than daily, 13% consumed daily whereas 29% never consumed tobacco in the past. It was found that 51.5% patients attempted to quit habit of smoking and chewing tobacco with 33% who tried in the past one year which is similar to a study conducted by Hussain JS et al, showing 33.8% to be associated with tobacco habits for less than 5 years and 23.9% for more than 5 years (Hussain JSA et al, 2013).

Health warnings on tobacco packages are one of the most cost-effective ways of communication and among them pictorial warnings that depict harmful effects of tobacco use brings about behavioural changes like quitting and reducing tobacco consumption (Raute LJ et al, 2009). This change was appreciated in a study done by Raute LJ et al, in which positive response was shown by general population for implementation of pictorial warnings on tobacco products (Raute LJ et al, 2009). They strongly agree to the fact that mandatory health warnings are an effective way to alert habit abusers about the harmful effects of implementing tobacco which is in correlation to present study, showing only 28.5% positive response rate with the perennial as mediocre.

Following study revealed that 47.5% respondents were aware about the consequences of tobacco consumption. 70% respondents noticed statutory health warnings on tobacco products and acquired information from mass media like Newspapers, magazines and movie screening that encouraged them towards quitting tobacco, but still many were unable to overcome these tobacco habits because of their feeling towards its addiction (Husten CG et al, 1997). These people remain less aware regarding the potential harms of tobacco use and find its usage beneficial, so are more hesitant to quit tobacco (Al-Qahtani MJ et al, 2017). Hence, government policies to ban free sale of tobacco to minor age group, smoking on public places and advertisement and promotion of tobacco products should be strictly amended by law to enforce tobacco cessation (Marinho V et al, 2010).

## CONCLUSION

Current study concluded that tobacco usage was highest among males with an incidence of 80%. Out of total consumers, 55% consumed tobacco less than daily whereas 29% never used tobacco in the past. Almost 70% of respondents expressed confidence among themselves to quit tobacco, but there was a setback in their motivation due to physical and psychological dependence on tobacco. Therefore, strong initiative and educational interventions are imperative to eliminate tobacco habits among all age groups. One of the limitations of the study was small sample size which was limited to only patients visiting a single centre in Chhattisgarh. Thus, further multicentre studies including greater sample size for assessment of tobacco use is advised to be conducted to know the exact perspective of out-patients towards tobacco abuse and their eagerness towards its abeyance.

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