

## KNOWLEDGE AND AWARENESS OF DENTAL PATIENTS ATTENDING ORTHODONTICS DEPARTMENT REGARDING ADVERSE EFFECTS OF TOBACCO

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### ABSTRACT

**Background:** Tobacco use is a potent risk factor for many human diseases and conditions including oral cancer, cardiovascular and pulmonary diseases and it has a major deleterious effect on population health. Therefore it becomes important to assess awareness among patients about the ill-effects of Tobacco.

**Materials and methods:** A questionnaire study was performed in which total 100 dental patients participated attending the Department of Orthodontics and Dentofacial Orthopedics, Rungta Dental Sciences and Sciences, Bhilai, Chhattisgarh. The questionnaire consisted of 22 questions, which was made in two languages, English and Hindi. Data was collected and analysed using SPSS version 18.0.

**Results:** The study consisted of a total of 100 patients, which included 17 Tobacco users and 83 non - Tobacco users. Both groups knew that smoking mainly causes oral cancer (87%), staining of teeth (61%) and delayed healing (36%). However, less number of patients were aware of the other adverse effects such as halitosis (51%), mouth ulcers (22%), and decreased mouth opening (19%).

**Conclusion:** Considering the present scenario, efforts are required to increase the awareness, where health professionals including dental, medical and allied health professionals should provide Oral Health Education regarding the ill-effects of tobacco.

**KEYWORDS:** Awareness, Tobacco, Oral health, Smoking, Smokeless, Cancer, Oral Cancer

### INTRODUCTION

The tobacco epidemic is one of the biggest public health threats the world has ever faced, killing nearly six million people a year. More than five million of those deaths are the result of direct tobacco use while more than 600,000 are the result of nonsmokers being exposed to second-hand smoke (SHS). Approximately, one person dies every 6 s due to tobacco, accounting for one in 10 adult deaths. Up to half of current users will eventually die of a tobacco-related disease.<sup>1</sup> Tobacco is the only legal product that kills a large proportion of its consumers when used as intended by the manufacturers. Tobacco comes in smoked and smokeless forms, both of which have been shown to cause harm to both the tobacco users and those who are getting SHS from them. Smoked forms of tobacco include various kinds of cigarettes, cigars, pipes, bidis, hookahs, and many others. Smokeless tobacco is not burned when used. It may be sucked, chewed, dipped, gargled, or applied to the gums or teeth while fine tobacco mixtures are inhaled into the nostrils. Tobacco use is one of the most important preventable causes of morbidity and mortality in India.<sup>2</sup> It is essential to study the existent knowledge about tobacco use and cigarette smoking to formulate the intervention for addressing this problem in the community. Not many studies have been done on awareness and

attitudes of the patients towards the ill-effects of Tobacco.

### AIM & OBJECTIVE OF THE STUDY

To assess the awareness and attitudes of the patients towards the ill-effects of Tobacco attending Department of Orthodontics and Dentofacial Orthopedics, Rungta Dental Sciences and Sciences, Bhilai, Chattisgarh.

### METHODOLOGY

A cross-sectional questionnaire-based survey was conducted during the month of January 2016. Patients were randomly selected from Out Patient Department (OPD) of Department of Orthodontics and Dentofacial Orthopedics, Rungta Dental Sciences and Sciences, Bhilai, Chattisgarh. Ethical clearance was obtained from ethical committee of Department of Orthodontics and Dentofacial Orthopedics, Rungta Dental Sciences and Sciences, Bhilai, Chattisgarh. Informed consent from each patient was taken. The study consisted of a total of 100 patients, which included 17 Tobacco users and 83 Tobacco users. The study questionnaire consisted of total 22 questions, which were made, in 2 languages, i.e. English and Hindi for the convenience of the patients. The questionnaire included socio-demographic variables, which included gender, marital status, age and educational level. These were followed by questions related to knowledge and awareness regarding the effects of Tobacco on general and oral health. Patients were even asked if they wanted to quit the habit, reasons for the same and methods that may assist to quit the habit. Data was analysed using statistical package for social sciences version 18.0. Frequency of smoking and reasons for smoking were calculated in terms of percentage. Differences in knowledge and awareness between smokers and non-smokers were assessed using Chi-square test.

### RESULTS

Out of the 100 patients, 82 were males and 18 were females. The study consisted of a total of 100 patients, which included 17 Tobacco users and 83 non - Tobacco users. Out of 17 Tobacco users were 15 were males and 3 were females.

The highest rates of Tobacco users were among 25-65 years of age group. Most of the respondents (both Tobacco users and non - Tobacco users) were aware that Tobacco is not good for general and oral health. Both groups did not have knowledge about the reversibility of side effects of Tobacco after cessation. Figure 1 illustrates the perception of effect of Tobacco on general and oral health. Both groups knew that Tobacco Consumption mainly causes oral cancer (87%), staining of teeth (61%) and delayed wound healing (36%). However, less number of patients were aware of the other adverse effects such as halitosis (51%), mouth ulcers (22%), and decreased mouth opening (19%). Other observations can be seen in the Figure 1 given below.



**Figure 1: Illustrates the perception of effect of Tobacco on general and oral health.**

### DISCUSSION

Tobacco, both in smoked and smokeless form is considered as a global epidemic which is one of the most common causes of deaths all over the world.<sup>3</sup> Adverse effects of smoking are well documented and established that affect various organs and parts of the body causing lung cancer, bronchitis, premature birth, cardiovascular diseases.<sup>4</sup> The oral and dental problems include staining or discoloration of teeth, oral mucosal lesions such as leukoplakia, oral submucous fibrosis and smokers palate, acute necrotizing ulcerative gingivitis, delayed and impaired wound healing, periodontal diseases, bone loss, mobility of teeth, failure of dental implants to life threatening diseases such as oral cancer.<sup>5</sup> Patients in the present study demonstrated fairly good knowledge (87%) about the oral effects of Tobacco compared to its effects on general

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health. Tobacco chewing and smoking form part of cultural practices in many areas in India. It may be responsible for less knowledge in the present pool of patients. The patients exhibited relatively less knowledge compared to other studies<sup>6,7</sup> when asked if smoking can cause tooth discoloration. Patients' knowledge regarding the relationship between smoking and dental caries was also explored in the present study. The relationship of smoking and dental caries is a controversial area of research. Recent research indicates that smoking creates favorable conditions for dental caries.<sup>8,9,10</sup> It has been demonstrated that cigarette smoke impairs salivary function and hence leads to dental caries. Nearly 87% patients agreed that Tobacco causes oral cancer, while 13% did not know the above fact. The knowledge about the oral cancer was comparatively good when compared to that reported by Rikard-Bell *et al.*<sup>11</sup> and Al-Shammari *et al.*<sup>12</sup> (74% and 62% respectively) and comparable to 85.5% reported by Terrades *et al.*<sup>6</sup> It is a cause of concern that in the present study still 13% of the patients were unaware that smoking can cause oral cancer despite the high incidence rates of oral cancer in our country. In the present study, the overall knowledge of Tobacco users and non-Tobacco users was similar. It can be concluded that knowledge may not be the only reason to start and stop a habit. The other barriers need to be identified.

### CONCLUSION

It can be concluded from this study that the dental patients had good knowledge about the general and oral effects of Tobacco except in few areas. They had a positive attitude toward the role of dentists in Tobacco cessation activities. Smokers exhibited a willingness to follow the dentists' advice about quitting tobacco. It is recommended to conduct such surveys among the general population covering different age groups. Dentists should inform their patients about the effects of Tobacco and strongly advise and help them in quitting and take up a more active role in such activities.

### REFERENCES

- Gallagher JE, Alajbeg I, Büchler S, Carrassi A, Hovius M, Jacobs A, et al. Public health aspects of tobacco control revisited. *Int Dent J.* 2010;60:31–49.
- Shah MN. New Delhi; India: WHO; 2005. Health professionals in tobacco control: Evidence from global health professional survey (GHPS) of dental students in India.
- Geneva: WHO Publication; 1997. WHO. Tobacco or Health: A Global Status Report.
- Beaglehole R, Watt R. London: Health Development Agency; 2004. Helping Smokers Stop: A Guide for the Dental Team.
- Johnson GK, Guthmiller JM. The impact of cigarette smoking on periodontal disease and treatment. *Periodontol* 2000. 2007;44:178–94.
- Terrades M, Coulter WA, Clarke H, Mullally BH, Stevenson M. Patients' knowledge and views about the effects of smoking on their mouths and the involvement of their dentists in smoking cessation activities. *Br Dent J.* 2009;207:E22.
- Lung ZH, Kelleher MG, Porter RW, Gonzalez J, Lung RF. Poor patient awareness of the relationship between smoking and periodontal diseases. *Br Dent J.* 2005;199:731–7.
- Campus G, Cagetti MG, Senna A, Blasi G, Mascolo A, Demarchi P, et al. Does smoking increase risk for caries. A cross-sectional study in an Italian military academy? *Caries Res.* 2011;45:40–6.
- Zitterbart PA, Matranga LF, Christen AG, Park KK, Potter RH. Association between cigarette smoking and the prevalence of dental caries in adult males. *Gen Dent.* 1990;38:426–31.
- Jette AM, Feldman HA, Tennstedt SL. Tobacco use: A modifiable risk factor for dental disease among the elderly. *Am J Public Health.* 1993;83:1271–6.
- Rikard-Bell G, Donnelly N, Ward J. Preventive dentistry: What do Australian patients endorse and recall of smoking cessation advice by their dentists? *Br Dent J.* 2003;194:159–64.

12. Al-Shammari KF, Moussa MA, Al-Ansari JM, Al-Duwairy YS, Honkala EJ. Dental patient awareness of smoking effects on oral health: Comparison of smokers and non-smokers. *J Dent.* 2006;34:173–8.