

## Patient Receptivity to Tobacco Cessation Counseling and Services in a Dental Teaching

### Institute: A Patient Review

Pavan Uday Patil<sup>1</sup>, S Vivek<sup>2</sup>, Thatimatla Chandrasekhar<sup>3</sup>, Nalini Parimi<sup>4</sup>, B H Praveen<sup>5</sup>, Sunil Lingaraj<sup>6</sup>

#### Contributors:

<sup>1</sup>Senior Lecturer, Department of Public Health Dentistry, Kamineni Institute of Dental Sciences, Nalgonda, Andhra Pradesh, India; <sup>2</sup>Senior Lecturer, Department of Public Health Dentistry, PMS College of Dental Sciences and Research, Thiruvananthapuram, Kerala, India; <sup>3</sup>Senior Lecturer, Department of Public Health Dentistry, KLR's Lenora Dental College and Hospital, Rajahmundry, Andhra Pradesh, India; <sup>4</sup>Reader, Department of Public Health Dentistry, St. Joseph Dental College, Eluru, Andhra Pradesh, India; <sup>5</sup>Senior Lecturer, Department of Public Health Dentistry, Kamineni Institute of Dental Sciences, Nalgonda, Andhra Pradesh, India; <sup>6</sup>Senior Lecturer, Department of Public Health Dentistry, KVG Dental College, Sullia, Karnataka, India.

#### Correspondence:

Dr. Vivek S. Department of Public Health Dentistry, PMS College of Dental Sciences and Research, Thiruvananthapuram, Kerala, India. Email: ivhere@gmail.com

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#### Abstract:

**Background:** The dentists are in a unique position to render tobacco cessation counseling to their patients. The current study is set to assess the attitudes of tobacco users toward tobacco cessation counseling attending a dental teaching institute and hospital in Andhra Pradesh.

**Materials and Methods:** A systematic random sampling method was used to select the sample. Survey was conducted among 660 patients attending a dental teaching institute. Patients who have completed oral examination in the department of oral medicine and radiology were asked to complete pretested questionnaire. The questionnaire was designed in both English and Telugu (local language).

**Results:** Among the study subjects 88.9% were planning to quit the habit, 72.27% had agreed that they discussed about ill-effects of tobacco, 82% of the subjects said that dentist should routinely offer quit tobacco assistance and services.

**Conclusion:** The present study indicates the majority of patients are receptive towards tobacco counseling and services in the dental setting. In this study, the majority of tobacco users were planning to quit. Majority of patients were unaware of the resources available to help them to quit. Dentists have a significant opportunity to disseminate information to patients who need assistance in quitting the habit of tobacco usage.

**Key Words:** Data collection, tobacco, tobacco use cessation

#### Introduction

Tobacco is an agricultural product processed from the leaves of plants in the genus *Nicotiana*. In the consumption, it most commonly appears in the forms of smoking, chewing, snuffing or dipping tobacco. Effects of tobacco use on the public oral health are alarming. Tobacco use causes oral diseases and numerous adverse oral health effects ranging from mild to life-threatening. The damaging and harmful effects of tobacco usage on oral health are now well-recognized as it is the primary risk factor for oral cancer, periodontal diseases and numerous systemic diseases. Tobacco affects the diagnosis and therapy in clinical practice as it alters the immune system, interferes with medication efficacy and increases the risk of medical crisis, so tobacco users become vulnerable to a wide range of debilitating diseases.

The International Classification of Diseases has recognized that "tobacco dependence" is a disease, but the medical profession has not taken a serious view of this fact and has not made any serious attempt to treat the disease, "tobacco dependence." However, it is encouraging to note that the World Health Organization and the Government of India have taken the initiative for effective tobacco control. Tobacco is used for smoking as well as in smokeless forms in India. Among the tobacco users, bidi smokers constitute 40%, cigarette smokers 20% and those using smokeless forms 40%. The prevalence of tobacco use in 1993-1994 was 23.2% in males (any age) and 4% in females (any age) in urban areas, 33.6% in males and 8.8% in females in rural areas. The National Family Health Survey (India) had revealed that individuals with no education were 2.69 times more likely to smoke and chew tobacco than those with postgraduate education.<sup>1</sup>

Tobacco use is a serious public health problem, the prevention and control of tobacco use has become an emerging issue of global significance and of central importance to oral health and dental care so, health professionals have a critical role in reducing the tobacco use in which dentists play a significant role as they see the patients on a frequent and regular basis. As a result, the dental personnel have unparalleled opportunities to educate and help those who use tobacco to quit.<sup>2</sup> The emphasis on regular dental checkups puts the dentist in a unique position among members of the health care professions. In contrast with other health professionals whose practice mainly involves

ill patients, the dentist generally screens healthy patients on a regular and periodic basis. This situation provides many opportunities for health screening, clinical and behavioral assessment, information, education, motivation and long-term follow-up. This situation also gives the dentist an excellent opportunity to disseminate reliable information and counseling to patients.<sup>3</sup>

The dental teaching institute is an ideal setting for tobacco counseling as preventive treatment services, oral screening and patient education always have been a large part of dental practice in a health care setup.<sup>4</sup> Such health care settings have become increasingly attractive as an avenue for promoting tobacco cessation counseling as they represent a clinical opportunity in which a patient may be more receptive to hearing cessation advice. The aim of this study is to investigate attitudes of patients who use tobacco towards the delivery of tobacco cessation counseling and services in a dental setting.

## Materials and Methods

### Study design

The present study was conducted on patients who have attended the Department of Oral Medicine and Radiology for initial examination in a dental teaching institute and hospital. A Systematic Random Sampling method was adopted to select the sample. Patients who have completed oral examination in the Department of Oral Medicine and Radiology were asked to complete a pretested questionnaire. The questionnaire was designed in both English and Telugu (local language). Consent was taken from each participant before filling the questionnaire. If the patient were illiterate then, each question was read out and explained by the investigator before they filled the questionnaire. A split half reliability test was done to check the validity and reliability of the questionnaire. All filled questionnaires were duly collected and entered in MS office excel 2007, and statistical analysis was conducted using Statistical package for social sciences © for windows Version-16 (2007). Chi-square test and Mann-Whitney U-test was used as a test of significance.

Totally 660 tobacco users were selected for the study by systematic random sampling technique. Sample size was determined by the formula:<sup>5</sup>

$$n = Z^2 pq / e^2$$

n = number of sample, Z = 2.58 ( $\alpha = 0.01$ ) (Z - standard normal variate value)

p = prevalence of interest, q = 1 - p (alternative prevalence), e = clinically accepted error

Sample size obtained from the above formulae was 660. Prevalence rate of tobacco use was 55% with 99% confidence

interval. The size of the sample was sufficient to provide a reliable estimate of attitudes of tobacco users not exceeding 5% error.

## Results

The study comprised majority of smoking cigarettes (43.8%), 25.9% of smoking bidis, 22.6% had chewing tobacco habit, and 7.7% had more than one type habit (Table 1).

When the distribution of study subjects according to awareness of availability of resources for quitting tobacco was tabulated it was seen that 58% of study populations were unaware of the resources for quitting tobacco and the remaining 42% were aware of it, and the results were statistically significant (Table 2).

In the study subjects according to those who are planning to quit. 587 (88.9%) were planning to quit the habit and 73 (11.1%) had no plan of quitting (Table 3).

The responses of the subject to the question should the dentist ask about tobacco usage and the responses were statically significant as majority of them i.e., 486 (73.63%) of the subjects agreed, 135 (20.45%) were not sure and 39 (5.9%) disagreed that dentist should routinely ask about tobacco usage (Table 4).

## Discussion

In India, tobacco consumption is a major risk factor responsible for oral and oropharyngeal cancer. India has one of the highest

**Table 1: Distribution of study subjects according tobacco chewing and usage habits.**

Type of tobacco used	n (%)
Chewing tobacco	149 (22.6)
Smoking bidis	171 (25.9)
Smoking cigarettes	289 (43.8)
More than one habit	51 (7.7)
Total	660 (100)

**Table 2: Distribution of study subjects according to awareness of availability of resources for quitting tobacco.**

Response	n (%)	Gender n (%)		Locality n (%)	
		Males	Females	Urban	Rural
Yes	278 (42.12)	181 (28.33)	5 (23.81)	138 (38.85)	48 (17.46)
No	382 (57.88)	458 (71.67)	16 (76.19)	247 (64.15)	227 (82.54)
Total	660 (100)	639 (96.81)	21 (3.18)	385 (58.33)	275 (41.66)

P<0.05 S, S: Significant

**Table 3: Distribution of study subjects according to those who are planning to quit.**

Response	n (%)	Locality n (%)	
		Urban	Rural
Yes	587 (88.9)	354 (91.95)	233 (84.73)
No	73 (11.1)	31 (8.05)	42 (15.27)
Total	660 (100)	385 (58.33)	275 (41.66)

P<0.05 S, S: Significant

Table 4: Distribution of subjects in response to dentist role in tobacco cessation activities.

	Response	n (%)	Locality n (%)	
			Urban	Rural
Should the dentist ask about tobacco usage?	Yes/routinely	486 (73.63)	276 (71.68)	210 (76.36)
	Not sure/sometimes	135 (20.45)	78 (20.25)	57 (20.72)
	No/not at all	39 (5.9)	31 (8.05)	8 (2.9)
	Total	660 (100)	385 (58.33)	275 (41.66)
Should the dentist advise about quitting tobacco	Yes/routinely	407 (61.67)	278 (72.2)	129 (46.9)
	Not sure/sometimes	191 (28.94)	92 (23.89)	99 (36)
	No/not at all	62 (9.39)	15 (3.89)	47 (17.09)
	Total	660 (100)	385 (58.33)	275 (41.66)
Should the dentist offer quit tobacco assistance and services	Yes/routinely	541 (82)	324 (84.15)	217 (78.9)
	Not sure/sometimes	93 (14)	41 (10.64)	52 (18.9)
	No/not at all	26 (4)	21 (5.45)	5 (1.81)
	Total	660 (100)	385 (58.33)	275 (41.66)

rates of oral cancer in the world, partly attributed to the high prevalence of tobacco habit, there is increasing interest in broadly inclusive public health interventions that involve low-cost, self-help materials and support from professionals. Dental health care workers are a largely untapped resource for providing advice and brief counseling to tobacco-using patients, and there are good reasons to believe that they can be effective in this role. The present study was conducted to investigate the knowledge, attitude and response of patients who use tobacco towards the delivery of tobacco cessation counseling and services in patients who were using tobacco attending a dental college in Andhra Pradesh, India. Although studies are assessing the barriers in implementing tobacco cessation in dental practices and self-perceived barriers,<sup>6-10</sup> were reported earlier, studies assessing oral perception of patient's receptivity for the same are limited. To the best of our knowledge, this is the first of its kind reporting from India where the burden of diseases due to tobacco is high.

Out of the study subjects 391 (59.24%) were from urban areas and 269 (40.76) were from rural areas. In the present study among all type of tobacco users, both in urban and rural areas majority (43.79%) of the study subjects had the habit of smoking cigarettes (Table 1). The total participants of the study were 660 tobacco users, consisting of males 639 (96.82%) and females 21 (3.18%) (Table 2). Irrespective of the educational qualification, age group and habitat of these participants majority (57.88%) of the subjects were unaware about the resources available for quitting the habit of tobacco.

These factors revealed that a well-trained dentist is needed for these patients aware through comprehensive and acceptable information about ill effects of using tobacco.

In this study, 407 (61.67%) agreed that dentist should advise tobacco users to quit and only a minority 62 (9.39%) agreed that dentist should not provide smoking advice (Table 4) which was similar to the study done by Rikard-Bell *et al.*, (2003)<sup>11</sup> they found that 23% did not agree that dentist should

provide smoking advice. In contrast to the study done by Davis *et al.*, (2005)<sup>12</sup> who found that 66% did not want any information regarding tobacco quitting, in our study only 3% did not want any information about tobacco quitting.

A study carried out by Campbell *et al.*, (1999)<sup>2</sup> found that 59.7% agreed that the dentist should offer quit assistance and services, and 25.3% disagreed.

A study done by Campbell *et al.*, (1999)<sup>2</sup> found that majority 59.7% agreed that the dentist should offer quit assistance and services, and 25.3% disagreed. In the present study 61.6% were comfortable, 28.9% were neutral, and 9.3% were not comfortable about receiving advice about quitting. The finding that about one third of tobacco users had not been to a dentist in the past year, and 27.73% of those who had seen a dentist had not discussed about their tobacco use, underscores the need for dental professionals to include their efforts in addressing this issue. This is particularly important evidence that many patients would prefer tobacco cessation assistance from a physician or other health professional over support groups, self-help or other forms of assistance.

The present study indicates that the majority of patients are receptive to delivery of tobacco counseling and services in the dental setting. Patients, who were not considering quitting, were significantly less positive than patients who were considering or trying to quit. In this study, the majority of tobacco users were planning to quit. Majority of patients were unaware of the resources available to help them to quit. Dentists see their patients relatively frequently and regularly as compared to other primary care providers, and therefore have a significant opportunity to disseminate information to patients who need it, at the time they need it. The results of this study of patients seen in an academic dental setting may not be generalized to all dental patients.

## Conclusion

Further studies are recommended on population groups to motivate tobacco users towards the habit cessation to

improve their oral and general health. However, this study is of importance since provides information on the attitude of patients towards tobacco cessation counseling by dentist.

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