



RESEARCH ARTICLE

PERCEPTION AND ATTITUDE OF DENTAL STUDENTS ABOUT TOBACCO CESSATION  
COUNSELING IN CHENNAI

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ABSTRACT

**Aim:** The aim of the study is to assess dental students perception, attitude and their views on anti tobacco counselling.

**Objective:** The study is conducted to understand the influence of knowledge on counselling, the effectiveness of the counselling and how they rate themselves as counselors and the barriers faced by them in the counselling process.

**Background:** The results of the study will help to assess the knowledge of dental students about anti tobacco counselling, how effective the counselling is and what barriers dental students face in counselling and their attitude and views about anti tobacco counselling.

**Reason:** Tobacco use is one of the most important reasons for various oral and systemic conditions. It is one of the major risk factors for oral cancer, periodontal diseases, and other serious oral diseases. As dentists it is our duty and responsibility to advise patients against the use of tobacco and educate them about the risks, oral and systemic implications on the continuous use of tobacco and help them in the processes of quitting the habit.

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INTRODUCTION

The use of tobacco is one of the most significant and serious public health issues facing the world today. Six out of the eight leading causes of death worldwide are attributed to diseases related to tobacco use as a risk factor (WHO 2010). In developing countries like India tobacco related deaths are the highest in the world and these numbers are expected to increase in the future (Gajalakshmi *et al.*, 2003). Tobacco-related mortality in India is among the highest in the world, with about 900,000 annual deaths attributable to smoking in the last decade. (Jha *et al.*, 2008) Annual oral cancer incidence in the Indian subcontinent has been estimated to be as high as 10 per 100,000 among males, and oral cancer rates are steadily increasing among young tobacco users. (Gajalakshmi *et al.*, 2003) The National Family Health Survey for 2005–06 found that 32.7 percent of males and 1.4 percent of females are smokers in India. (National Family Health Survey, 2011) The harmful effect of tobacco on the oral and systemic health of an individual has been well established for decades. Tobacco use adversely affects oral health and dental care. It has been directly implicated in numerous oral morbidities, including

oral and pharyngeal cancers, oral epithelia dysplasia, oral leukoplakia, stomatitis nicotina, gingival recession, gingival bleeding, soft-tissue changes, acute necrotizing ulcerative gingivitis, root caries, staining of teeth/dental restorations, halitosis, snuff dipper's lesions, smoker's palate and congenital defects such as cleft lip and palate in children, tobacco increases the risk of periodontal diseases, which includes bone and tooth loss, failure of the osseointegration of dental implants, impaired oral wound healing. (Ehizele *et al.*, 2008) Number of studies conducted indicate that smokers are more likely to quit smoking permanently if they receive health professional assistance, behavioral counseling, and pharmacologic treatment (Fiore *et al.*, 2000) When patients visit a dental hospital, it provides an opportunity for dental professionals to identify, diagnose and explain the detrimental effects of tobacco use on oral and general health. Previous research on tobacco cessation in dental clinics indicated that pointing out oral lesions and directly relating them to the patient's tobacco use was a powerful motivator for initiating a cessation attempt (Little *et al.*, 1992) The continuous and repeated contact with the patient are often more easily provided in a dental practice thus making the dental hospital an ideal setting for tobacco cessation than medical care environment. Tobacco is identified as a preventable cause of morbidity and mortality globally. Hence the aim of this study is to assess the

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attitude and perception of dental students towards tobacco cessation in a dental health care setting.

## MATERIALS AND METHODS

A cross sectional survey was conducted among all dental students, using a pretested self administered questionnaire. Prior to administration of questionnaire, the aim and nature of the study was explained to the participant and informed consent obtained. Students completed the questionnaire anonymously during clinical hours. The 15 itemed questionnaire contained both open and closed ended questions and assessed the students perception and attitude to tobacco cessation services, present practice in the area of patients counseling on tobacco cessation and the perceived constraint against counseling, students specific training on tobacco cessation and their knowledge of the effects of tobacco on oral health. Data analysis was be done using SPSS version 13.0

## RESULTS

Response rate was 100%. Respondents were 32% male and 68% female, with mean age 21±3.0 years.

## DISCUSSION

Dentists play a key role in tobacco use cessation counseling directed toward the community as a whole and toward the individual patient. The training of dental students in counseling might increase the intervention in subsequent professional practice. (Pizzo *et al.*, 2010) Our study investigated the attitudes and views of clinical dental students from a private dental colleges in Chennai, India. The study sample consisted of 300 respondents, comprised of III year and IV year students and interns. The overall prevalence of tobacco use is significantly higher in the rural (23.7%) compared to semi-urban (20.9%) and urban (19.4%) areas and tobacco smoking prevalence was 14.3%, 13.9% and 12.4% in rural, semi-urban and urban areas respectively in Chennai (Chockalingam *et al.*, 2013), which is more than what is reported in other countries, for example, Great Britain (7 percent), Australia (13 percent), Ireland (20 percent) (Cannick *et al.*, 2006). In 2008, in India Cigarette and Other Tobacco Products Act (COTPA) came into effect, prohibiting smoking in all public and work places. This act also stipulated that there should be a visible board at every entrance and every floor of a public place that reads, "No Smoking Area. Smoking Is an Offence."

**Table 1. Distribution of responses regarding practices and policies of dental students**

	YES	NO
Do you take tobacco usage histories from all patients?	272(90.7%)	28(9.3%)
Do you provide anti tobacco counseling for all the patients with a smoking habit?	290(96.7%)	10(3.3%)
Have you been taught about anti tobacco counseling in your institution?	289(96.4%)	11(3.6%)
Are you aware of all the ill effects of smoking on the oral and systemic health of people?	295(98.3%)	5(1.7%)
In your own practice will you provide anti tobacco counseling?	297(99%)	3(1%)
Do you recall your patients for review?	293(97.7%)	7(2.3%)

**Table 2. Distribution of responses regarding actions and views about smoking cessation counseling**

	YES	NO	UNSURE
Do you think anti tobacco counseling provided by a student will help the patient quit?	209(69.6%)	17(5.7%)	74(24.7%)
Do you think such counseling's will alienate the patients?	111(37%)	95(31.7%)	92(30.7%)
Do you think anti tobacco counseling is effective?	182(60.7%)	9 (3%)	109(36.3%)
In the course of your training have you ever assisted a patient to quit tobacco usage?	95(28.3%)	53(17.7%)	162(54%)

**Table 3. Participant's confidence in using various strategies or methods in assisting their patients to quit tobacco usage**

Counsel patients about the effect of tobacco on health	197(65.7%)
Written information	43(14.3%)
Self help material	52(17.4%)
Nicotine replacement therapy	8(2.6%)

**Table 4. Response of participants to their role in smoking cessation**

	Always	Often	Sometimes	Never
Do you help patients identify the barriers in their attempt to quit smoking?	45(15%)	95(31.7%)	160(53.3%)	-
Do you discuss with the patient the potential benefits of quitting?	249(83%)	32(10.7%)	19(6.3%)	-
Do you follow up on the progress of the patient in their attempt to quit?	44(14.7%)	73(24.3%)	124(41.3%)	59(19.7%)

**Table 5. Response of participants to various barriers involved in anti tobacco counseling**

Not having adequate knowledge	30(10%)
Counseling may alienate the patients	68(22.7%)
Do not have time for anti tobacco counseling	59(19.7%)
Patients don't expect counseling from students	81(27%)
Cannot accurately determine patients who use tobacco without being intrusive	62(20.6%)

According to this legislation, most of the dental colleges in India adopted official policies banning smoking in buildings, clinics, and indoor public and common areas. (Shah, 2005) A majority of students (96.4%) in the present study were aware that smoking was prohibited in clinical facilities, nonclinical teaching areas and public areas associated with clinical facilities in the campus. According to a Cochrane Collaboration review of six studies, dental patients who received anti tobacco counseling in the dental office were 1.4 times more likely to quit tobacco and remain abstinent after twelve months than patients who received no counseling. (Carr and Ebbert, 2006) A majority of respondents, 90.7% answered correctly that all patients should be routinely asked about their tobacco usage histories and 96.7% gave antismoking advice. When asked about strategies that will be useful for smoking cessation counseling, majority of 65.7% responded that counseling smokers about the effects of smoking on their oral health is a useful strategy, among the other possible strategies 2.6% said they suggested nicotine replacement therapy and 14.3% written information and 17.4% self-help material. Only 14.7% percent suggested follow-up visits on the progress of the patient. These findings were similar to a study done by Yip JK *et al* in United States. (Yip *et al.*, 2000) Most of students, in this study agreed that smoking cessation counseling is part of a dentist's professional role, and that they will continue counseling even in their private practice, which is in correlation to other studies conducted in different countries (Polychonopoulou *et al.*, 2004; Pizzo *et al.*, 2010). 96% of the participants said that they were taught about anti tobacco counseling, 98% knew the role of tobacco on oral and systemic health of an individual. This was in accordance to the similar studies conducted by Rajasundaram *et al* on Indian students (Rajasundaram *et al.*, 2011) and Rikard-Bell G *et al* on Australian students. (Rikard-Bell *et al.*, 2003)

Even though 96% of our participants provide anti tobacco counseling, only 57% students felt that such counseling would always help their patients quit tobacco, this is in contrast to other finding reported in literature (Polychonopoulou *et al.*, 2004; Rikard-Bell *et al.*, 2003; Victoroff *et al.*, 2004) This response in the present study highlight the importance of providing training that will encourage dental students to provide more comprehensive tobacco counseling services. In regards to barriers to smoking cessation counseling, patient resistance to counseling provided by a student was seen as the strongest barrier to counseling. Lack of time, knowledge, reimbursement, and confidence were all endorsed as barriers, but to a slightly lesser extent, which was in accordance to many previous studies. (Ahmady *et al.*, 2011) In fact, a number of studies conducted amongst health care professionals have found that clinicians who receive formal training in cessation counseling are more likely to provide tobacco intervention for their patients (Pizzo *et al.*, 2010). This study suggests the need to help dental students develop professional competence in smoking cessation by encouraging them to implement the concept of tobacco prevention. More emphasis should be placed on conveying information regarding the clinician's potential efficacy in tobacco cessation efforts. Focus on evidence-based teaching will help students stimulate their potential for success. (Vanobbergen *et al.*, 2007) A comprehensive tobacco education curriculum could provide

knowledge and clinical experience that would help students motivate the concept of tobacco intervention.

## Conclusion

The dental students in our study were in general agreement that tobacco cessation counseling is within the scope and responsibility of the dental profession and that such counseling can be effective. Thus it's important to include in the curriculum or train dental students and provide them with adequate knowledge so that they can administer proper counseling for the patients. This survey also was shown to provide a valid and reliable assessment of attitudes and perceived barriers to tobacco cessation counseling in a dental environment. It is important that students are aware of these barriers and are taught how to overcome them and provide successful counseling for the patients.

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