

## Original Article

### Attitude regarding Tobacco Use Cessation (TUC) among Dental Fraternity in Dental colleges of Panchkula (India)

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#### Abstract

**Background:** Tobacco cessation is universal issue as its leads to various preventable diseases, so in spite of being treating the cause at tertiary level, prevention is much better option for health care provider. **Objective:** The purpose of our study was to assess dental students and dental professional perceptions regarding tobacco use cessation (TUC), and their attitude regarding their professional responsibility to help users to quit tobacco habit. **Materials and Methods:** The study was conducted on BDS 3rd year students, Interns and dental professional of dental colleges in Panchkula (India). A 17-item questionnaire focused on attitudes of dental fraternity, professional responsibilities, effectiveness and scope of TUC practice in dental setting. **Results:** Statically significant difference is seen among responses of dental fraternities, with students having lesser positive attitude than dental professionals. **Conclusion:** Although all the participants shows their positive attitude towards Tobacco use cessation but they feel unprepared due to lack of training in conducting TUC practice and needed training in the field of TUC so that they can apply their best knowledge for better conduction.

**Keywords:** Tobacco use cessation, NRT, Dental Setting, Health professionals.

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#### Introduction

The issue of Tobacco control is universal as it leads to preventable cause of chronic obstructive pulmonary disease, associated with increased risk for oral cancer, increased prevalence and severity of periodontitis and edentulism.<sup>1</sup> Tobacco use in any form is harmful to the health is now a well established fact. Experts say that one person dies from oral cancer every hour,

even though more people start and others continue to use tobacco every day, harming themselves and those around them<sup>2</sup>. It has been observed that every new day 55000 children in India start using tobacco and about 5 million children under the age of 15 are get addicted to tobacco.<sup>3</sup> This is something shocking and alarming situation

for health workers as well as Govt. health policy makers in India.

Being a health worker its responsibility of a dentist to provide education to their patients regarding ill effect of tobacco and provide tobacco cessation counseling to their patients. Giving of two- to three-minute tobacco-use cessation counseling (TUCC) to tobacco users as part of routine clinical practice in the clinics, health professionals can achieve quit rates better than those who through spontaneous quitting method but many health worker report that they don't provide TUCC in their clinic because of lack of Knowledge of how to integrate it into practice.<sup>1</sup> Many studies reveals the facts with strong evidence for the effectiveness of tobacco control programs and few recent studies conclude the fact that TUCC in the dental setting significantly can increase tobacco cessation rates.<sup>4</sup> This is an opportunity for oral health care worker recognized by the World Health Organization (WHO) Global Oral Health Programme, the European Union (EU) Working Group on Tobacco and Oral Health, and recently by the European Workshop on Tobacco Use Prevention and Cessation.<sup>5</sup> Studies have shown that information channeled through the mass media tends to influence higher social strata while persons in the lower educational group appear to decode and respond best to verbal information which is feasible in the clinic where dentist sensitize the patient with verbal information regarding Tobacco cessation.<sup>6,7</sup> There are large number of current smokers seeking dental care in the clinic annually so dentists always have a good opportunity to provide TUC counseling in their clinic and encouraging the patient to move toward healthy life style.<sup>8</sup> The delivery of tobacco cessation practices by health professionals in primary care practice setting in recent year has received much attention.<sup>9</sup>

Numerous controlled studies examining cessation counseling interventions delivered by physicians and dentists have demonstrated the efficacy of health care providers in reducing smoking among their patients.<sup>7</sup> The role of the dental team in tobacco use cessation is well established.<sup>10-13</sup> various recent publication has reveal the fact that common obstacles to carry out TUC by the health worker in their practice is unpreparedness because of lack of knowledge and lack of confidence.<sup>15</sup> Several authors have proposed that incorporating tobacco cessation intervention curriculum content into formal professional education is the most successful way to ensure better clinicians' performance of tobacco interventions behaviours.<sup>15</sup> The purpose of our study was to access the dental students, interns and dental professional perceptions regarding the presence of tobacco cessation content in curriculum, the attitude concerning their professional responsibility to help users quit tobacco, and the barriers which enable the dental fraternity to carry out effective cessation practice in the dental setting.

### **Material and Methods**

Study was conducted in dentals colleges of Panchkula where the data was collected by survey from non probability samples of dental students (n=163) and dental professionals (n=47). Focus was placed on three groups 3<sup>rd</sup> year students, internship students and The dental professionals who were working in the institutes were also included to know the influence of dental practice on their attitude towards tobacco use cessation. Participation of the subjects in the survey was voluntary. In the survey, Seventeen closed item questionnaire regarding TUC were used which was drawn from the survey on senior dental student's attitude towards smoking cessation guidelines used by Yip et al.<sup>7</sup> These items

were modified with some additional items for use with the Indian study subjects to determine students and dental professionals attitudes. Each item consisted of a statement and a five-point Likert scale, ranging from strongly agree to strongly disagree. Before carry out the project, A pilot survey was undertaken to check validity of the questionnaire so that modification were made in questionnaire as necessary. These items focused on three areas.

1. Professional responsibility items which is focussed on dental fraternities' attitudes towards the professional's responsibility to promote tobacco cessation.
2. Scope of dental practice items focussed on dental fraternities' attitudes regarding the recommendations of tobacco cessation services in Indian dental schools.
3. Effectiveness items focussed on dental fraternities' attitudes regarding the effectiveness of tobacco cessation promotion in the dental setting in helping patients quit tobacco use.

The survey questionnaire was administered during college hours to all the students of selected group who were present at the day of survey. Dental professionals were approached at their respective departments, questionnaires were administered and collected the next day. This study was approved by the institutional review board of Swami Devi Dyal Hospital and Dental College, Barwala Panchkula India.

The survey data were analyzed using the SPSS 10.0 software package. Descriptive statistics using Frequency distributions and percentages were generated for all questions. The scales measuring attitudes were collapsed into dichotomous variable: agreement and disagreement. Pearson chi-square tests were used to derive p-value for group difference in proportion. Statistical significance level was set at  $p < 0.05$ .

## Results

The response rate was 98%. The total of 198 respondents in which 47% were BDS third-year students, 32% were interns and 21% were dental professionals. The mean age of two groups that is BDS 3<sup>rd</sup> year and interns was 22.4 years where as the mean age of Dental professionals was 35.4 years.

5-point Likert scale was used to record and measure the responses which were later dichotomized. The first two question was focused on attitude toward tobacco and its users shown in table 1 and it was observed that 18% of the respondents willingly accepted themselves, family members, or friends using tobacco and 45% of the respondents felt they can effectively carry out cessation program, in spite of them being a tobacco user themselves.

Table 2 shows the responses to questions related to professional responsibility and about 91.4% of the total respondents agreed that it's their responsibility to provide education to the patients about the risk of tobacco use where as 84.8% of the respondents agreed that its their responsibility to encourage patients to quit tobacco use. The difference in the response rates among three groups was statistically significant ( $p=0.044$ ). In another set of two question related to professional responsibility it was observed that 82% of the total respondents want to take up training in tobacco use cessation but very few respondents (51.1%) want to take up promotional activities on political front.

Responses rate for another set of questions related to scope of TUC in dental practice are shown in Table 3. in which 76.2% of respondents felt it is within the scope of dental practice to relate oral health findings to tobacco use where as Third-year student have a least positive response of only 60% and the difference in response among the groups was statistically significant ( $p < 0.001$ ).

**Table 1:** Attitude towards tobacco and its users

	3 <sup>rd</sup> BDS (n=94) 47%	Interns (n=64) 32%	Dental professional (n=40) 21%	Total (n=198)	x2	p value
I willingly accept myself, family members or close friends using tobacco	14(15%)	12(19%)	11(27%)	37(18%)	2.935	0.231NS
In spite of being a tobacco user a dentist can still effectively carry out the cessation program	36(38%)	31(48%)	22(54%)	89(45%)	3.628	0.163NS

p > 0.05; Not Significant (NS); \* p < 0.05; Significant at 5% significance level

**Table 2:** Responses: professional responsibility items

Is it the dental professional's responsibility to:	3 <sup>rd</sup> years (94)	Interns (64)	Dental Professionals (40)	Total (198)	X <sup>2</sup>	P value
Educate patients about the risks of tobacco use	87(93%)	59(92%)	35(85%)	181	0.985	0.611 <sup>NS</sup>
Encourage patients to quit using tobacco	83(88%)	49(77%)	37(90%)	168	6.242	0.044*
Discuss with patient the benefits of quitting tobacco	85(90%)	58(91%)	40(100%)	183	4.111	0.128 <sup>NS</sup>
Do a course regarding tobacco cessation	78(83%)	51(80%)	35(85%)	164	1.059	0.589 <sup>NS</sup>
Take promotional activities on political front	50(53%)	28(44%)	23(56%)	101	2.203	0.332 <sup>NS</sup>

**Table 3:** Responses: scope of dental practice items

Is it within the scope of dental practice to	3 <sup>rd</sup> years (94)	Interns (64)	Dental Professionals (40)	Total (198)	X <sup>2</sup>	P value
Assess tobacco use in the patients	54(57%)	44(69%)	27(66%)	125	2.501	0.286 <sup>NS</sup>
Relate oral health findings to tobacco use	56(60%)	57(89%)	38(93%)	151	28.011	<0.001***
Help in successfully quitting the habit	86(91%)	56(88%)	36(87%)	178	0.668	0.716 <sup>NS</sup>
Prescribe nicotine replacement therapy	65(69%)	42(66%)	33(80%)	140	3.594	0.166 <sup>NS</sup>
Involve other health care professionals in tobacco cessation clinics	75(80%)	50(78%)	37(90%)	162	3.915	0.141 <sup>NS</sup>
Discuss specific strategies for stopping	83(88%)	51(80%)	39(94%)	173	7.218	0.027*

**Table 4:** Responses: effectiveness items

	3 <sup>rd</sup> Year (94)	Interns (64)	Dental Professionals (40)	Total (198)	X <sup>2</sup>	p value
Tobacco use cessation counseling offered in the dental office can have an impact on patients' quitting	81(86%)	47(73%)	37(90%)	165	7.477	0.024*
Tobacco cessation training should be a part of dental curriculum	83(88%)	59(92%)	38(93%)	180	1.712	0.425 <sup>NS</sup>
Nicotine replacement therapy along with counseling will provide maximum quit rate	79(84%)	54(84%)	31(76%)	164	1.004	0.605 <sup>NS</sup>
Financial assistance should be provided to patient for conducting the cessation program	67(71%)	49(77%)	32(78%)	148	1.296	0.523 <sup>NS</sup>

shows that 87.3% of the respondents felt that there is need to adopt specific strategy for Tobacco use cessation and dental professionals showing the maximum positive response of 94%. The difference in the responses rate of three group was statistically significant (p=0.027). Moreover 70.7% of the respondents agreed that a dentist have to prescribe nicotine replacement therapy and 81.8% of the respondents felt that it is within the scope of dental practice to involve other health care professionals in TUC in dental setting.

Table 4 shows responses rate of the questions related to effectiveness of TUC activities and it was observed that 83.3% of the total respondents agreed with the fact that if TUC counseling offered in the dental office, it will have an impact on patient's quitting rate and moreover dental professional showing greater positive attitude than the students . Again statistically significant (P = 0.0237) was see in the responses among dental fraternities. Another set of responses for the question related to the same focused area shows that 90.9% of the respondents agreed with the fact that TUC training should be a part of dental curriculum and also 82.8% of the total respondents feel that nicotine

replacement therapy along with counseling will provide maximum quit rate but in this context dental professionals shows slightly less positive response .74.7% of the total respondents feel that some financial assistance should be provided for conducting the cessation program.

#### Discussion

In this study three group were undertaken that was BDS 3<sup>rd</sup>, internship students and dental professionals working in the institution. Focus was placed on internship students as they were most likely to have been exposed to practicing world in the clinic and so at that point of time they would give us better perception of their attitude regarding TUC content and the 3<sup>rd</sup> year students who have been just exposed to clinical dentistry and going to deal with patients face to face. They would most likely to develop a belief system about their professional responsibilities. The dental professionals who were working in the institutions were also included to know the influence of dental practice on their attitude towards tobacco use cessation. The results of this study reveal important information regarding Indian Dental fraternities (students and professionals) attitude towards tobacco use cessation promotion in the dental clinic.

First, nearly all the subjects including dental students and dental professionals agreed that it is the dental professionals' responsibility to provide education to the patients regarding ill effects of tobacco use and discuss the benefits of quitting and encouraging the patients to quit tobacco use. This result of this study find consistence results with previous studies addressing students and practitioners attitudes.<sup>9,15</sup> The present study reveals the Higher percentage of response rate by dental professionals towards their responsibility to encourage patients to quit tobacco as compare to dental students. This response rate might be due to the fact that students are in the early stages of change (precontemplation, contemplation, preparation for action) for asking, assisting and arranging follow ups, where as the dental professionals are in the later stages of change and have better understanding about the facts related to the responsibility for advising patients to quit tobacco use.<sup>16</sup> The responses suggest that the majority of dental students and practitioners (63% of respondents) has positive attitude towards TUC but had some confusion in their mind that how come this TUC practice included in their academic curriculum but they do agree (76% of respondents) with fact that it is in the scope of dental practice to relate oral finding with tobacco use. It was statistically significant among the groups ( $P < 0.001$ ) as only 60% of the third year students agreed to it. This difference among the third year students and other groups may be due to lack of knowledge as there is no such content regarding tobacco and oral health findings in their academic curriculum during third year of their education and it is mostly in the fourth year where they exposed to the clinics and have scope to relate oral finding with tobacco use. The lack of education in the formative years of training is one of the most significant barriers to tobacco use training among

dental care providers.<sup>4,11</sup> The lack of education regarding TUC during academic year of college is the main barriers due to which students as well as dental professionals feel unpreparedness for carry out effective tobacco cessation practice in the dental setting. Nearly 91 % Of respondents wanted TUC training and feels that it should be part of dental curriculum. Most of the respondents believe that it is their responsibility to educate the patient about the risk of tobacco use. There is a statistical significant difference in response on the effectiveness of TUC offered in the dental office ( $p=0.0237$ ), with interns giving the least positive response and practitioners showing greater positive response. As the interns are in the final stages of their training, they are more oriented and interested in learning the clinical skills which they perceive as the most important for their carrier success. Other reasons can be the students despite perceived ability to be successful, students' priorities, and lack of faculty reinforcement.<sup>13</sup> Furthermore 75% of the respondents urged that financial assistance should be provided for conducting the tobacco cessation program. If not this may act as a constrain.<sup>18</sup> As in an U.S study more dentists than physician reported the lack of insurance coverage as a barrier to TUC counseling.<sup>19</sup>

### Conclusion

Studies have shown that it is professional duty of the dentists to take part in the tobacco cessation activities but they need a professional training regarding cessation practice so that they can carry out patients counseling as well as prescribe NRT as a regular part of dental practice.

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