



Tobacco cessation counseling among dental professionals of Visakhapatnam city - knowledge, Preparedness and perceived barriers

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Abstract

Background: Tobacco use is liable for 3 million deaths globally per annum. Tailored counseling by a specialist increases quit rates additionally by 4%–7% compared to normal. Now, tobacco cessation may be a part of oral health assessment. Hence, brief advice from dental health professionals as a part of their routine consultations or interactions is an approach that creates use of existing health-care systems.

Purpose: A study was carried out among the dental professionals of Visakhapatnam city to assess their knowledge, preparedness, and perceived barriers regarding tobacco cessation counseling.

Materials and Methods: A cross-sectional online questionnaire study was conducted among dental professionals which include academicians (Group 1), clinicians (Group 2), and both clinicians and academicians (Group 3) of Visakhapatnam City over a period of 3 month’s from May to July 2021. Three hundred dental professionals were approached, in

which 145 participated in the study. Self-administered, structured and coded questionnaire was mailed to them and analysis was done.

Results: This study found that almost all the dental professionals agreed that they have a role in helping patients regarding tobacco cessation. Our study had overcome all the perceived barriers as 75.9% of Group 3 professionals got positive feedback from the patients after counseling and 70.9% of academicians feel chances of quitting tobacco have increased after they advised the patient to quit the habit, but 42.9% of Group 3 professionals think that they don’t get time to counsel patients.

Conclusion: Group 3 dental professionals (both academicians and clinicians) have more knowledge and actively participate in tobacco cessation of patients as compared to academicians (Group 1) and clinicians (group 2). So, there is an urgent need to train clinicians and academicians at community and institutional levels.

Keywords: Academicians, clinicians, dental professionals, knowledge, tobacco cessation

Introduction

Nicotine contained in tobacco is highly addictive and tobacco use is a major risk factor for cardiovascular and respiratory diseases, over 20 different types or subtypes of cancer, and many other debilitating health conditions. Every year, more than 8 million people die from tobacco use. Most tobacco-related deaths occur in low- and middle-income countries, which are often targets of intensive tobacco industry interference and marketing. By 2040, if urgent action is not taken, the death count will rise to more than 8 million. Tobacco is the only legally available consumer product which kills people when it is used entirely as intended.⁽¹⁾

India is the second-largest consumer of tobacco products, with more than 200 million users of smokeless forms of tobacco SLT and 276 million consumers of tobacco overall. Situation in our country is worse because of predominant tobacco users, which covers both socioeconomic and ethnic groups and it is high over metropolitan areas as well as remote villages. According to the survey of global adult tobacco survey 2 2016–17 in India, 42.4% of men, 14.2% of women, and 28.6% (266.8 million) of adults use tobacco. In Madhya Pradesh, 38% of population smoke tobacco daily and 39% use SLT which leads to a rise in oral cancer.^(2,3)

Tobacco control is a preventable cause of mortality and morbidity. It is imperative to provide tobacco cessation services to tobacco user's behaviour modification and awareness regarding tobacco hazards and its consequences is a necessary step to reduce risks. Tailored counseling by a specialist increases quit rates additionally by 4%–7% compared to normal. Ain et al.

suggested that 67.07% of the dentists agreed that it is their role in helping patients to quit smoking, but 77% of dentists do not have time to do tobacco cessation.⁽⁴⁾ Amit et al. in 2011 concluded that there is a need of effective planning for execution of tobacco cessation by authorities at regular intervals to achieve a goal of "tobacco free society."⁽⁵⁾

Tobacco cessation: Dentist's role

Currently, only 30% of the world's population has access to appropriate tobacco cessation services. Without cessation assistance, only 4% of attempts to quit tobacco succeed. Proven cessation medications and professional support can double a tobacco user's chance of successfully quitting. Now, tobacco cessation is a part of oral health assessment. Hence, brief advice from dental health professionals as part of their routine consultations or interactions is an approach that makes use of existing health-care systems. When a tobacco user visits a primary or specialized care service, it presents an opportunity for the dentists to offer and provide them with personalized counseling. Brief advice is a key means of motivating people who might not otherwise seek tobacco cessation support and encouraging them to quit, and as such is an essential component of tobacco cessation services.⁽¹⁾

Hence, the present study was carried out among the dentists of Visakhapatnam city to assess their knowledge, preparedness and perceived barriers regarding tobacco cessation counseling.

Objectives

1. To assess the knowledge among dentists of Visakhapatnam city regarding tobacco cessation counseling.

2. To assess the Preparedness among dentists of Visakhapatnam city regarding tobacco cessation counseling.
3. To assess the Perceived barriers among dentists of Visakhapatnam city regarding tobacco cessation counseling.

Methodology

Study Design: A cross-sectional descriptive epidemiological study

Study Population: This cross-sectional study was carried out during the months of June and July 2021 among the dentists of Visakhapatnam city.

Inclusion Criteria

- All the dental professionals who were willing to participate in the study were included.

Exclusion Criteria

- Those who were not willing and not available during the study period were excluded.

Sampling Procedure

Convenient sampling method will be used and the sample size was determined by using Epi Info software.

Data Collection

Data was collected by means of a self-made, closed ended questionnaire.

Questionnaire

The survey of the present study included questions that inscribe (a) demographic details which include name, age, gender, and educational qualification,(b) knowledge regarding tobacco cessation, (c) preparedness and steps taken for tobacco cessation, (c) barriers in tobacco cessation, and (d) patients counselled and their success rate. This is in compliance with the methodology used by Ain et al. in their study.

⁽⁴⁾ The questionnaire will be hand-delivered as well as

mailed to the dental professionals and collected after 2 days.

Self-administered structured, semi open, and coded questionnaire was formulated by the experts. Prior to the data collection the questions were pre-tested among a group of 20 dentists revealing no need for any corrections. Face validity and content validity of the questionnaire were evaluated by team of experts which includes public health dentists. Reliability of questionnaire was evaluated by doing a pilot study among 10 dentists and test-retest reliability coefficient obtained was $r > 0.70$ and Cronbach's alpha was found to be satisfactory.

Statistical Analysis

Data collected was entered into Microsoft Excel. Descriptive statistics and inferential statistics was calculated for qualitative data using Statistical Package for Social Sciences (SPSS) 20.0. Chi-square test was applied to test the association between comparison groups and $P < 0.05$ was considered statistically significant.

Study Duration: Two Months

Ethical Clearance

Ethical approval for the study was obtained from Institutional review board. The written informed consent was taken from study participants prior to start of study.

Results

Out of 200 dental professionals to whom questionnaire was mailed, 145 responded in a week's time with a response rate of 72.5%. The demographic details of the dental professionals were mentioned in Table 1.

Demographic profile	n (%)
Age (years)	
20-25	30 (20.6)
25-30	35 (24.1)
30-35	45 (31)
Above 35	35 (24.1)
Gender	
Male	100 (68.9)
Female	45 (31)
Educational qualification	
BDS	65 (44.8)
MDS	85 (58.6)
Type of practice	
Clinicians	43 (29.6)
Academicians	48 (33.1)
Both	54 (37.2)

The findings of the study suggest that almost all the groups agreed that they have a role in helping patients regarding tobacco cessation. Hundred percent academicians agreed that tobacco cessation counseling should be a part of curriculum. Majority of Group 1 (54.1%) and Group 2 (50%) professionals think that they lack knowledge regarding tobacco cessation

counseling as compared to Group 2 (37.2%) professionals. Ninety-three percent clinicians were familiar with types, constituents, and effects of tobacco consumption as compared to academicians (83.3%) and both (87%). However, no statistically significant difference was observed between groups related to knowledge [Table 2].

Sn.	Questions	Academicians (Group 1) (n=48), n (%)	Clinicians (Group 2) (n=43), n (%)	Both (Group 3) (n=54), n (%)	p
Q1	Do you think that you have a role in helping patients in tobacco cessation?	48 (100)	42 (99)	52 (98)	0.419
Q2	Do you think that you lack knowledge about tobacco Cessation counseling?	26 (54.1)	16 (37.2)	27 (50)	0.245
Q3	Do you know about 5A's of	28 (58.3)	32 (74.4)	34 (62.9)	0.259

	tobacco cessation counseling?				
Q4	Do you think tobacco cessation counseling should be a part of curriculum	48 (100)	36 (83.7)	49 (90.7)	0.18
Q5	Are you familiar with types, constituents and effects of tobacco consumption	40 (83.3)	40 (93.0)	47 (87.0)	0.37

Chi-square test

Preparedness among dental professionals regarding steps taken for tobacco cessation shows that 48.5% of academicians have taken training regarding tobacco cessation as compared to clinicians (32.5%) and both (27.7%) which is very low, 7.4% of both clinicians and academicians (Group 3) advise nicotine replacement therapy (NRT). About 85.3% of Group 3 dentists only prescribe nicotine substitutes to patients who want to

quit as compared to Group 1 (79.1%) and Group 2 (55.8%). As compared to Group 2 dental professionals (27.9%), both Group 1 (50%) and Group 3 (51.8%) professionals refer their patients to a psychiatrist for counseling and P value obtained was statistically significant. A statistically significant difference (P = 0.03) was observed between the groups regarding the check on patients' follow-up visits who are enrolled for cessation [Table 3].

Table 3: Dental professionals preparedness regarding tobacco cessation

Sn.	Questions	Academicians (Group 1) (n=48), n (%)	Clinicians (Group 2) (n=43), n (%)	Both (Group 3) (n=54), n (%)	p
Q6	Have you taken any additional training Pertaining to tobacco cessation?	22 (45.8)	14 (32.5)	15 (27.7)	0.148
Q7	Do you assist the patient in tobacco cessation Process, if they are willing to do so?	46 (95.8)	38 (88.3)	49 (90.7)	0.412
Q8	Are you willing to undergo training of tobacco cessation counseling?	34 (70.8)	33 (76.7)	41 (75.9)	0.774
Q9	Do you practice cessation counseling of patients with tobacco usage?	34 (70.8)	32 (74.4)	30 (55.5)	0.106
Q10	What steps do you take for tobacco cessation	Warn: 8 (16.6) Advice: 36 (75) NRT'S: 0 Other	Warn: 13 (30.2) Advice: 26 (60.4) NRT'S: 2 (4.6)	Warn: 12 (22.2) Advice: 32 (59.2) NRT'S: 4 (7.4)	0.268

		pharmacological agents and other behavioral therapies: 4 (8.3)	Other pharmacological agents and other behavioral therapies: 2 (4.6)	Other pharmacological agents and other behavioral therapies: 6 (11.1)	
Q11	Do you recommend the use of nicotine substitute products to patients who want to quit?	38 (79.1)	24 (55.8)	45 (83.3)	0.365
Q12	Have you ever thought of referring the patient with heavy dependence to psychiatrist for counseling?	24 (50)	12 (27.9)	28 (51.8)	0.038 *
Q13	Do you advice routine screening for oral cancer in patients with tobacco usage?	38 (79.1)	32 (74.4)	42 (77.7)	0.859
Q14	What steps/source of information you use to check progress of patients with quitting?	Follow-up visit: 41 (85.4) Phone call: 0 E-mail/WhatsApp: 0 None: 7 (14.5)	Follow-up visit: 26 (60.4) Phone call: 0 E-mail/WhatsApp: 0 None: 17 (39.5)	Follow-up visit: 43 (79.6) Phone call: 1 (1.8%) E-mail / WhatsApp: 0 None: 10 (18.5)	0.031 *
Q15	Do you counsel and speak with family about supporting the patient in trying to quit?	38 (79.1)	27 (62.7)	37 (68.5)	0.217

Chi-square test, *statistically significant. NRT: Nicotine replacement therapy

In previous studies, the most common barriers for successful tobacco cessation are Dentists-patient relation, routine stress on habit history and time to counsel patients. About 22.2% of Group 3 professionals are of the opinion that if they ask patients regarding tobacco, it might affect dentist-patient relationship as well patient might not turn up again. About 79.1% of academicians feel that chances of quitting increased after they advised their patients to quit, 75.9% Group 3

professionals got positive feedback from their patients after counseling, and 32.5% of clinicians are of the opinion that they do not get time to counsel their patients. As compared to Group 1 and Group 3 professionals, 25.5% of clinicians consume tobacco, which was statistically significant [Table 4].

Sn.	Questions	Academicians (Group 1) (n=48), n (%)	Clinicians (Group 2) (n=43), n (%)	Both (Group 3) (n=54), n (%)	p
Q16	Do you feel chances of quitting tobacco have increased after you advised patient to quit the habit?	38 (79.1)	28 (65.1)	37 (68.5)	0.295
Q17	Did you get any positive feedback from the patients after counseling?	34 (70.8)	26 (60.4)	41 (75.9)	0.252
Q18	Do you think that if you ask patients about the use of tobacco it might damage dentist patient relationship or patient might not turn up again?	4 (8.3)	2 (4.6)	12 (22.2)	0.019 *
Q19	Do you routinely stress on your patients about habit history pertaining to tobacco usage?	40 (83.3)	29 (67.4)	45 (83.3)	0.103
Q20	Do you use any form of tobacco yourself?	2 (4.1)	11 (25.5)	5 (9.2)	0.005 *
Q21	Do you think that you don't get time to advice for tobacco cessation and discuss benefits with patients?	18 (37.5)	14 (32.5)	23 (42.5)	0.598
Q22	Have you done tobacco cessation counseling in any of your patients? If yes, how many patients have you counseled and what was the success rate?	40 (83.3)	26 (60.4)	39 (72.2)	0.51

Discussion

In the current study, 100% of academicians, 99% of clinicians, and 98% of Group 3 think that they have a role in helping patients in tobacco cessation. This is in close agreement with the study of Ain et al.^[4] and others,^[6,7] in which 67.07% of dentists agreed that they have a role in helping patients in tobacco cessation. Only 50% of academicians and clinicians think they have lack of knowledge about tobacco cessation counseling, but this was not in accordance with the study where majority think they have a lack of knowledge.^[4] Majority of clinicians know about 5A's of tobacco cessation counseling and 100% of academicians think that tobacco curriculum should be a part of curriculum. The study reveals that dentists have knowledge about aspects of tobacco cessation, but there is a need of proper training to implement it successfully.

According to the study conducted by Ibrahim and Norkhafizah,^[8] majority of dental practitioners have a role in smoking cessation counseling, but there was a lack of training in their practices; similarly, a study was conducted by Vinod et al.^[9] to evaluate the role of oral physicians as a counselor in tobacco cessation, in which only 5.4% of dental practitioners had taken additional training pertaining to tobacco cessation, as in the and 27.7% of Group 3 dental professionals have taken additional training and 76.8% of clinicians, 75.9% of Group 3, and 70.8% of academicians are willing to undergo tobacco cessation training which is accordance with the previous study.^[4] In the current study, 74.4% of clinicians, 70.8% of academicians, and 55.5% of Group 3 dentists positively replied about counseling the patients about habit cessation, thus fulfilling their moral and professional obligations and playing an important

role in tobacco cessation which is in accordance with the previous study.^[9] In the present study, all the three groups were compared for the steps taken for tobacco cessation, highest positive response among clinicians was for warning(30.2%), 75% of academicians were advising the patient about tobacco cessation, 7.4% of Group 3 professionals were using NRTs, and 11.1% of Group 3 professionals were using other pharmacological agents and behavioral therapies as seen in the previous study,^[9] suggesting that there is a need of more work to be done in the field of educating and counseling patients for habit cessation.^[10] Dental professionals are the first to recognize any changes in the oral cavity. In the current study, 79.1% of academicians, 77.7% of Group 3, and 74.4% of clinicians advised their patients for routine screening of oral cancer as mortality and morbidity of oral cancer can be significantly reduced if detected in early stages. In our study, 27.9% of clinicians thought of sending patients to psychiatrist for counseling as compared to both the groups and the value is statistically significant ($P < 0.05$) which was found evident with the previous study^[9] and 79.1% of academicians counsel and speak to patients family members, relatives, and friends for their support to help the patient in quitting as tobacco cessation is a multidisciplinary approach. To increase the quit rate among patients, a constant check on follow-up is needed, as in our study, 85.4% of academicians, 79.6% Group 3, and 60.4% of clinicians were monitoring their patients' follow-up, which was statistically significant, thus implying that there is a need of inclusion of other protocols like phone calls, messages, Whatsapp messages, and e-mails for the same.

The most common barriers perceived by the dental professionals in the previous studies^[11,12] were lack of resources, lack of training, and dentists' fear that the patients may not turn up again. Our study has overcome some of the perceived barriers as 75.9% of Group 3 professionals got positive feedback from the patients after counseling, 70.9% of academicians feel chances of quitting tobacco have increased after they advised the patient to quit the habit,^[13] but 8.3% of academicians think that patients may not turn up, 25.5% of clinicians use tobacco^[14,15] which was found statistically significant as compared to other groups, and 42.9% of Group 3 professionals think that they do not get time to counsel patients which is in accordance with the previous study.^[12,16,17]

Hence, it is suggested that tobacco cessation training should be provided in each institution/university and tobacco curriculum should be a part undergraduate curriculum so that dental professionals would be able to decrease the rate of tobacco usage and curb the menace of oral cancer, as Singla et al.^[18] concluded that dental professionals must expand their horizons and armamentarium to include tobacco cessation counseling strategies inclusive of their regular preventive and therapeutic treatment modalities.

Limitation of the study

The results of the study cannot be generalized as the study is limited to dentists from Visakhapatnam City and further research is required in this field.

Conclusion

As concluded in our study, Group 3 dental professionals (both academicians and clinicians) have better knowledge and actively participate in cessation of patients as compared to academicians and clinicians. Hence, there is an urgent need to sensitize and train

clinicians and academicians at community and institutional levels. For academicians, tobacco cessation modules/CDE programs/workshops and webinars should be conducted by respective colleges/universities to enhance their knowledge and improve cessation counseling skills so they can overcome the barriers faced during cessation counseling. At the clinical level, it should be made mandatory by the government that private practitioners should have done a certificate course on tobacco cessation and a tobacco cessation cell should be established and tobacco cessation counsellor should be appointed in each and every clinic and hospital. This will help in solving patients' dental problems and prevention of oral diseases like oral cancer will certainly increase their practice and income. In the present study limited stress was given on lost to follow up, behavioural and pharmacological therapies. Thus, the need of an hour is to maintain a constant communication with the patients through phone calls and social media platform like E-mails, WhatsApp and Facebook messages.

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