



Knowledge, Attitude and Practice of Tobacco Cessation Counselling among Dental Professionals in Maharashtra- An Opportunity for Health Promotion

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Received Date: 25-05-2022; **Accepted Date:** 13-06-2022; **Published Date:** 20-06-2022

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Abstract

Background: Patients can have a better prognosis and quality of life if tobacco-related lesions in the oral cavity are detected early. These oral symptoms can be identified and isolated with the aid of a dental check-up. Tobacco use habits can be intervened in and tobacco cessation counselling can be provided by trained oral health specialists. Hence the aim of the present study was to assess knowledge, attitude and behaviour of dental professionals towards tobacco cessation counselling for tobacco users in Maharashtra, India.

Methodology: A self-administered questionnaire-based survey was sent to members of Indian Dental Association (IDA) through email. The results were analysed using statistical programme SPSS 25.0 software.

Results: 78% of the participants had not undergone tobacco counselling training. 83% of participants had not been trained to give psychological support to patients who were attempting

Prabhu A | Volume 3; Issue 2 (2022) | JDHOR-3(2)-052 | Research Article

Citation: Oswal K, et al. Knowledge, Attitude and Practice of Tobacco Cessation Counselling among Dental Professionals in Maharashtra- An Opportunity for Health Promotion. J Dental Health Oral Res. 2022;3(2):1-12.

DOI: <https://doi.org/10.46889/JDHOR.2022.3207>

to quit smoking. Nicotine Replacement Therapy was mentioned by 86% of those polled. To a large extent, 54% of participants think it is their obligation to give cigarette cessation counselling. Only 33% of participants felt confidence in their abilities to provide appropriate smoke cessation advice. Only 38% of participants were hopeful about their patients' abilities to quit smoking. 38% of participants inquire about their patients' tobacco usage and 18% provide extensive tobacco cessation counselling.

Conclusion: Tobacco intervention by dentists is an excellent strategy to lower the cost of tobacco-related curative and palliative care. As a result, more dentists should provide their patients tobacco cessation counselling. Dental health practitioners should receive comprehensive training in these treatments so that they can deliver appropriate services to tobacco users.

Keywords

Dentists; Oral Cancer; Tobacco; Tobacco Counselling

Introduction

Tobacco use has serious consequences for both general and dental health. In today's world, tobacco use has evolved into a global epidemic. The World Health Organization (WHO) collected statistics on tobacco smoking prevalence in 144 nations. In 44 of these nations, more than 40% of the population over the age of 15 used tobacco, whether it was smoking or smokeless [1]. Tobacco kills more than 8 million people each year, according to the WHO. More than 7 million fatalities are caused by direct tobacco use, whereas 1.2 million are caused by nonsmokers being exposed to Second Hand Smoke (SHS) [2].

Tobacco was first brought to India hundreds of years ago. Since then, everything about it has changed, from its composition to how it is utilised. Tobacco is now utilised in India in a variety of ways. Tobacco is divided into two types: smoking tobacco and smokeless tobacco. According to the most recent data from the Government of India's National Sample Survey, India has 184 million tobacco users. About 40% of them use smokeless tobacco, 20% smoke cigarettes and 40% smoke beedis [3].

It is well known that smoking and using smokeless tobacco causes a wide range of oral and systemic problems. Gingival and periodontal disorders, as well as oral mucosal lesions, have been linked to tobacco chewing and smoking in studies [4,5]. Tobacco smokers are also at an increased risk of acquiring precancerous lesions and mouth malignancies [6]. Dentists are trained to recognise even minute changes in their patients' mouths during dental examinations. These alterations are frequently neglected by patients until they create problems ranging from

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tongue burning to inadequate mouth opening. As a result, dentists are in the best position to intervene and give patients with tobacco cessation counselling.

Tobacco cessation training is included in the Dental stream's syllabus to some extent, but it is vital to refresh this information in order to give the greatest help to patients in quitting these behaviours and reducing the threat. As a result, this study was done to analyse oral health professionals' tobacco counselling knowledge, attitudes and behaviours.

Materials and Methodology

From July to October 2018, a cross-sectional research was undertaken. Clinical practitioners and specialists who are members of the Indian Dental Association (IDA) of Maharashtra were included in the study. Members who completed the questionnaire through email during the study period met the inclusion criteria.

The participants' sociodemographic information, knowledge, attitude and tobacco cessation counselling practises were all included in the questionnaire. The investigator created a questionnaire based on available research that was pilot tested with ten dentists to determine the relevance of the items and their order. The questionnaire was revised after pilot testing. The participants were given an online survey tool that explained the study, its goal and questions, as well as their consent. The sample size for the investigation was determined using the following assumptions: $N = 4pq/d^2$ ($p = 50\%$, $q=1-p$, $d= 3.5\%$) = 525. Have you heard of Nicotine Replacement Therapy (NRT)? Was a question about knowledge? Do you have adequate expertise in counselling patients to stop smoking and how hopeful are you in patients' capacity to overcome their tobacco habit? Do you give tobacco cessation counselling to your patients, for example? Do you provide any tips or recommendations to help patients quit smoking?

Assuming a non-response rate of 20%, the total sample size was calculated = 635. The ethical clearance was taken from Ethics Committee of Indian Dental Association, Head Office, Mumbai. The descriptive and bivariate statistical analysis (Chi Square Test) was done using Statistical software namely SPSS 25.0. Microsoft Word and Excel were used to generate tables.

Results

As mentioned in Table 1, out of 635 participants of the study, 52% were female and 48% were male and 75% were graduate dental professionals. The information about the work profile and years of experience of participants was also collected as illustrated in Table 2. 76% of the

participants were private practitioners. 49% participants had a total work experience of 10 years or more.

In Table 3, we assessed the respondents' training regarding tobacco cessation counselling. 78% of the participants had not received training on how to counsel patients to quit tobacco. 83% had not received training to provide psychological help to patients who are trying to quit tobacco. 86% of the participants had heard about Nicotine Replacement Therapy whereas, 64% of respondents felt that they have sufficient knowledge in advising patients to quit tobacco.

While assessing dentists' attitudes on tobacco cessation counselling and its effects on their patients' behaviours (Table 4,5). To a large extent, 54% of the participants stated it is their obligation to give cigarette cessation counselling. Tobacco cessation counselling offered by dental practitioners is beneficial to a large extent, according to 35% of respondents. 33% of participants felt extremely confident in their abilities to provide effective cigarette cessation counselling. Patients anticipate cigarette cessation advice from dental experts to some level, according to 33% of respondents. About a quarter of the participants thought that asking patients about tobacco usage would make them disappear. In some way, 38% of responders felt positive about their patients' potential to quit smoking.

The respondents' degrees of cigarette cessation counselling practises were also examined. It was shown that 38% of respondents inquire about their patients' tobacco use status, while only 30% of participants give tobacco cessation counselling to some level to their patients. 32% of respondents stated they provide patients information and useful recommendations to help them quit smoking to a significant level. 7% of the participants said they had a lot of cigarette cessation reading resources in their waiting room. To some extent, 38% of participants felt positive about their patients' capacity to quit smoking.

Gender Distribution of Respondent		
Gender	No. of Subjects	%
Female	327	52
Male	308	48
Total	635	100
Qualification		
Qualification	No. of Subjects	%
BDS	477	75
MDS	158	25
Total	635	100
Specialization		
If specialist	No. of Subjects	%

Orthodontics	31	20
Periodontics	20	12
Pedodontics	20	12
Endodontics	20	12
Prosthodontics	13	8
Oral and Maxillofacial Surgery	20	12
Oral Medicine and Radiology	12	8
Oral Pathology	13	8
Community Dentistry	9	6

Table 1: Demographic details of respondents.

Working Profile of Participants		
Response	No. of Subjects	%
Private practitioner	480	76
Attached with dental / medical hospital/ trust	90	14
Faculty in dental college	52	8
Any other job related to dentistry	7	1
Working in different sector other than dentistry	6	1
Total	635	100
Years of Experience of Participants		
Years of Practice	No. of Subjects	%
< 1 yr.	32	5
1 To 2 yrs.	77	12
3 to 5 yrs.	100	16
5 yrs. to 9 yrs.	116	28
10 yrs. and above	310	49
Total	635	100

Table 2: Work profile of respondents.

Have you received training on how to provide psychological help to patients who are trying to quit tobacco habit?			
Response	BDS (n=477)	MDS (n=158)	Total (n=635)
Yes	78 (16.35%)	30 (18.98%)	108 (17%)
No	399 (83.64%)	128 (81.01%)	527 (83%)
The chi-square statistic is 0.5839. The p-value is 0.44.			
Have you received training on how to counsel patients to quit tobacco habit?			
Response	BDS	MDS	Total

	(n=477)	(n=158)	(n=635)
Yes	98 (20.54%)	40 (25.31%)	138 (22%)
No	379 (79.45%)	118 (74.68%)	497 (78%)
The chi-square statistic is 1.5886. The p-value is 0.2.			
Have you heard of Nicotine Replacement Therapy (NRT)?			
Response	BDS	MDS	Total
	(n=477)	(n=158)	(n=635)
Yes	405 (84.90%)	142 (89.87%)	547(86%)
No	72 (15.33%)	16 (10.12%)	88 (14%)
The chi-square statistic is 2.4536. The p-value is 0.11.			
Do you have sufficient knowledge in advising patients to quit tobacco habit?			
Response	BDS	MDS	Total
	(n=477)	(n=158)	(n=635)
Yes	303 (63.52%)	106 (67.08%)	409 (64%)
No	174 (36.47)	52 (32.91%)	226 (36%)
The chi-square statistic is 0.6586. The p-value is 0.41.			

Table 3: Knowledge of the respondents regarding tobacco intervention.

How much is your responsibility as a dental professional to provide in tobacco cessation counselling?				
Response	BDS		MDS	Total
	(n=477)		(n=158)	(n=635)
Not at all	2(0.4%)		0(0%)	2 (0.3%)
A little bit	17(4%)		1(1%)	18(3%)
To some extent	55(12%)	8(5%)		63(10%)
Considerable extent	156(33%)	56(35%)		212(33%)
Great extent	247(52%)	93(59%)		340(54%)
How effective do you think is tobacco cessation counselling provided by dental professionals?				
Response	BDS		MDS	Total
	(n=477)		(n=158)	(n=635)
Not at all	5(1%)		1(1%)	6 (1%)
A little bit	43(9%)		13(8%)	56(9%)
To some extent	143(30%)	47(30%)		190(30%)
Considerable extent	158(33%)	62(39%)		220(35%)
Great extent	128(27%)	35(22%)		163(26%)
The chi-square statistic is 2.5976. The p-value is 0.62.				
How confident you are in your ability to effectively offer tobacco cessation counselling?				
Response	BDS		MDS	Total

	(n=477)		(n=158)	(n=635)
Not at all	9(2%)		2(1%)	11 (2%)
A little bit	50 (10%)		16 (1%)	66(10%)
To some extent	153(32%)	50(32%)		203(32%)
Considerable extent	156(33%)	56(35%)		212(33%)
Great extent	109(23%)	34(22%)		143(23%)
The chi-square statistic is 2.5976. The p-value is 0.62				
Do you think patients expect tobacco cessation advice from dental professionals?				
Response	BDS		MDS	Total
	(n=477)		(n=158)	(n=635)
Not at all	29(6%)		4 (3%)	33 (5%)
A little bit	56 (12%)		27 (17%)	83(13%)
To some extent	155(32%)	54(34%)		209(33%)
Considerable extent	139(29%)	50(32%)		189(30%)
Great extent	98(21%)	23(15%)		121(19%)
The chi-square statistic is 8.0583. The p-value is 0.08.				
Do you think that if you ask patients about the use of tobacco, patient might not turn up again?				
Response	BDS		MDS	Total
	(n=477)		(n=158)	(n=635)
Yes	124(26%)		34 (22%)	158 (25%)
No	353 (74%)		124 (78%)	477(75%)
The chi-square statistic is 1.2727. The p-value is 0.25.				
How optimistic you are in patients' ability to change their tobacco habit?				
Response	BDS		MDS	Total
	(n=477)		(n=158)	(n=635)
Not at all	13(3%)		2 (1%)	15 (2%)
A little bit	67 (14%)		22 (14%)	89(14%)
To some extent	178(37%)	63(40%)		241(38%)
Considerable extent	144(30%)	49(31%)		193(30%)
Great extent	75(16%)	22(14%)		97(15%)
The chi-square statistic is 1.5541. The p-value is 0.81.				

Table 4: Attitude of the respondents regarding tobacco intervention.

Do you enquire about your patient's Tobacco use status?				
Response	BDS		MDS	Total
	(n=477)		(n=158)	(n=635)
Not at all	23(5%)		3 (2%)	26 (2%)
A little bit	50 (10%)		17 (11%)	67(14%)
To some extent	118(25%)	41(26%)		159(38%)
Considerable extent	142(30%)	44(28%)		186(30%)
Great extent	144(30%)	53(34%)		197(15%)
The chi-square statistic is 3.1353. The p-value is 0.53.				
Do you offer Tobacco cessation counselling to your patients?				
Response	BDS		MDS	Total
	(n=477)		(n=158)	(n=635)
Not at all	24(5%)		7 (4%)	31 (5%)
A little bit	87 (18%)		26 (16%)	113(18%)
To some extent	143(30%)	49 (31%)		192(30%)
Considerable extent	134(28%)	50(32%)		184(29%)
Great extent	89(19%)	26(16%)		115(18%)
The chi-square statistic is 1.177. The p-value is 0.88.				
Do you provide advice or helpful hints to motivate patients to quit Tobacco use?				
Response	BDS		MDS	Total
	(n=477)		(n=158)	(n=635)
Not at all	8(2%)		4 (3%)	12 (2%)
A little bit	66 (4%)		19 (12%)	85(13%)
To some extent	144(30%)	38 (24%)		182(29%)
Considerable extent	140(29%)	61(39%)		201(32%)
Great extent	119(25%)	36(23%)		115(18%)
The chi-square statistic is 5.7504. The p-value is 0.21.				
Do you provide reading materials on Tobacco cessation in your waiting area?				
Response	BDS		MDS	Total
	(n=477)		(n=158)	(n=635)
Not at all	131(28%)		45 (29%)	176 (28%)
A little bit	126 (26%)		44 (28%)	170(27%)
To some extent	115(24%)	39 (37%)		154(24%)
Considerable extent	68(14%)	21(13%)		89(14%)
Great extent	37(8%)	9(6%)		46(7%)
The chi-square statistic is 0.926. The p-value is 0.92.				

How optimistic you are in patients' ability to change their tobacco habit?				
Response	BDS		MDS	Total
	(n=477)		(n=158)	(n=635)
Not at all	13(3%)		2 (1%)	15 (2%)
A little bit	67 (14%)		22 (14%)	89(14%)
To some extent	178(37%)	63 (40%)		241(38%)
Considerable extent	144(30%)	49(31%)		193(30%)
Great extent	75(16%)	22(14%)		97(15%)
The chi-square statistic is 1.5541. The p-value is 0.81.				

Table 5: Practices of the respondents regarding tobacco intervention.

Discussion

In India, there are 124 large tobacco production businesses and 267 million tobacco consumers. In a literature analysis conducted by Rao SVK, et al., to investigate the epidemiology of oral cancer in Southeast Asian countries, significant incidence rates were observed in emerging countries such as India, Pakistan, Bangladesh, Taiwan and Sri Lanka [7]. Oral cancer accounts for roughly 5% of all cancers worldwide, according to a research by Ibrahim H, et al., whereas it accounts for nearly 40% of all cancers in India [8]. The purpose of this study was to assess oral health professionals' tobacco cessation counselling knowledge, attitudes and behaviours. Our research found that while participants were aware of the dangers of tobacco, they were unable to give cessation assistance owing to a lack of formal training. 83% of participants said they had not received training to provide psychological assistance to patients and 36% said they had not received training to help patients quit smoking. 78% of the participants had never been trained on how to help patients quit smoking. According to a study conducted by Ibrahim H and Norkhafizah, a perceived obstacle to dentists providing tobacco cessation counselling to their patients was a lack of expertise [8]. This should change since several studies done by Warnakulasuriy S, Jacques C, et al. and Parkar S, et al., have shown enhances quit rates when tobacco cessation advice was given by healthcare professionals [10-12].

In terms of the participants' attitudes about dental professionals, 54% stated that they had a significant role to play in providing tobacco cessation services. Tobacco cessation counselling offered by dental experts is successful to a large extent, according to 35% of participants. To a significant level, 33% of participants felt confidence in their capacity to properly deliver cigarette cessation counselling. This contradicts the findings of Shaheen S, et al., who found that participants were satisfied with their cigarette cessation counselling procedures [13]. On the other side, nearly 25% of the participants expressed concern and anxiety that if smoke cessation was implemented, patients would no longer seek dental treatment.

According to the findings of our survey, 38% of participants said they inquired about their patients' tobacco usage to some level. Participants agreed to the assertion that they knew the right questions to ask patients while offering tobacco use cessation counselling in another study conducted by Srivastava S, et al., [14]. The first step toward the 5A's of tobacco cessation counselling is to ask patients about their cigarette usage. The words 'Advice,' 'Assess,' 'Assist,' and 'Arrange' follow. According to our research, 30% of participants provide significant cigarette cessation counselling to their patients. All the participants of this study were BDS and MDS professionals. Gururaghavendran R, et al., reported 78.8% of the students in a dental college in Mangalore, India had never conducted tobacco cessation counselling [15]. When asked if they give cigarette cessation reading materials in their waiting areas, 28% of participants said no. Another research found that 35% of participants agreed that their dentist clinic does not have any tobacco-related self-help materials or booklets to hand out to patients [6]. Only 15% of the participants were confident in their patients' abilities to significantly reduce their cigarette use.

As a result, we conclude that the majority of participants were aware of the harmful consequences of tobacco and were confident in advising their patients to quit smoking. Many of the participants had heard of Nicotine Replacement Therapy (NRT) as a way to quit smoking. Despite the fact that many participants saw tobacco cessation counselling as their obligation, they were unsure about their ability to successfully counsel a patient. As a result, we can infer that the primary barrier to tobacco cessation counselling among oral health professionals is a lack of training and awareness about the various tobacco cessation counselling strategies.

According to a study by Cherian V on cigarette stop attempts and cessation in the adult population, India needs to scale up tobacco cessation programmes [16]. When WHO built up a network of 19 tobacco cessation clinics and analysed the data, it was discovered that 14% of tobacco users (3,255) had stopped after a six-week follow-up and 22% of tobacco users (5,187) had cut their tobacco usage by more than half [17].

'The provision of behavioural assistance or drugs, or both, to tobacco users to help them stop using tobacco,' according to Article 14 of the Framework Convention on Tobacco Control [18]. A study of tobacco addiction treatment programmes in 121 countries was done to see if they were in compliance with FCTC Article 14. According to Piné-Abata, et al., study, poor and middle-income nations have less tobacco addiction treatment options than high-income ones [19]. As a result, boosting the workforce that provides cigarette cessation services might be one of the answers to India's tobacco pandemic.

As a result, the Indian Dental Association launched the Tobacco Intervention Initiative, a professional-led initiative to end tobacco addiction in India. This initiative's objective is to train

experts, raise public and media awareness and form and build partnerships. Not only dental health professionals, but also members of other workforces such as AYUSH, are empowered through IDA's structured training programme (Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy). They've also held awareness campaigns among dentistry students, NSS members and schoolchildren.

Around 780 million individuals worldwide indicate they want to quit smoking, yet only 30% of those who want to quit have access to the necessary tools and strategies. As a result, in December 2020, WHO began the 'Commit to Quit' yearly effort to assist 100 million individuals in quitting tobacco. WHO intends to expand access to cigarette cessation assistance, among other things. According to Kalyanpur, et al., the majority of oral health practitioners are unfamiliar with tobacco quitting approaches [20]. Another study by Chhabra C, et al., found that when patients are counselled, the majority of them had a positive attitude toward quitting smoking [21].

Psychotherapy and pharmacology are both used in tobacco cessation counselling. Despite the fact that tobacco cessation counselling is incorporated in dentistry training, it is not comprehensive. As a result, many dentists doubt their abilities to counsel patients. The topic should be regarded an obligatory training to graduate dentists who are capable of offering counselling if necessary. Post-graduate training for dental practitioners should be given at a low cost. A biennial course refresher should also be scheduled. This will significantly reduce the burden of smoke cessation counselling on doctors and psychologists. This will not only strengthen dentist-patient relationships, but it will also help India reduce the frequency of tobacco-related mortality, which is urgently needed.

This study has limitations, even though it answered many issues concerning why dentists don't give tobacco cessation counselling. The sample was mostly from a single state and a comparison with other states with both high and low cigarette usage burdens would have provided further insights. The study's findings are not applicable across India. However, the findings of the study clearly suggest that tobacco cessation counselling training for oral health professionals should be increased several times.

Conclusion

Psychiatrists and medical specialists have been entrusted with tobacco cessation counselling. Oral pre-cancerous and malignant tumours are recognised by dental health specialists. As a result, they can be taught to give tobacco addiction treatment. Tobacco smokers should receive psychosocial counselling as well as medication from dental health specialists. This would significantly lower the incidence of oral cancer in India.

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DOI: <https://doi.org/10.46889/JDHOR.2022.3207>

Conflict of Interest

There are no conflicts of interest.

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