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Original Article

Dentistry Section

Tobacco Cessation Counselling Practices and Attitude among the Dentist and the Dental Auxiliaries of Urban and Rural Areas of Modinagar, India

ASHISH SINGLA[1], BASAVARAJ PATTHI[2], KHUSHBOO SINGH[3], SWATI JAIN[4], VAIBHAV VASHISHTHA[5], HANSA KUNDU[6], RAVNEET MALHI[7], VENISHA PANDITA[8]

ABSTRACT

Background: The increasing use of tobacco among youths warrants the need for dental health professionals to effectively provide tobacco cessation counselling (TCC) in the office and community settings. However, there have been concerns among the dental professionals regarding TCC in dental settings.

Aims and Objectives: To assess the attitude of dental professionals including the dentist and dental hygienist towards the TCC and identify the possible barriers towards the implementation of these practices in the rural and urban areas of Modinagar district.

Materials and Methods: The present questionnaire based survey was carried among the qualified dentist and dental hygienist from the urban and rural areas of the Modinagar district to attitudes in tobacco cessation, practices in tobacco cessation interventions and related barriers towards implementation. The survey data were analyzed using the SPSS 16 version software package. The descriptive statistics (frequency) was generated for the each question to assess their attitude and practice.

Results: The response rate of the questionnaire among the dentist and dental hygienist was 100%. The attitude of the majority of dentist towards the tobacco cessation counselling was positive as compared to the dental hygienist. 69.2% of the dentist were of the view that the dental health professionals should provide TCC as compared to 54.2% among the hygienist. Regarding the practice, only 12.5% and 5.8% of the dentist and dental hygienist had ever used the nicotine replacement therapy in their dental practice. The lack of the knowledge and information regarding TCC was the only perceived barrier among the dentists (51.7%) and dental hygienist (68.3%).

Conclusion: Dental professionals must expand their horizon and armamentarium to include TCC strategies inclusive of their regular preventive and therapeutic treatment modalities. Also, the dental institutions should include TCC into the curriculum, but it should not be just theoretical knowledge rather it must have a practical component.

Keywords: Attitude, Dental hygienist, Dentist, India, Tobacco cessation

INTRODUCTION

According to the estimates of World Health Organization, tobacco is second leading causes of the mortality worldwide and fourth most common risk factor for disease worldwide. More than 75% of tobacco related deaths occur in low and middle income countries due to high prevalence of smoking among men. In India, 7% of all deaths (for ages 30 and above) are attributed to tobacco use [1,2]. Further, the widespread use of tobacco in the smoking and smokeless forms have contributed to increasing burden of non communicable disease particularly lung cancer, oral and oesophageal cancer, hypertension and cardiovascular diseases [1,2].

In addition to its association with other conditions, tobacco use plays a significant role in the aetiology of a number of oral conditions [3]. It's a primary risk factor for oral cancer, periodontitis and delayed wound healing [4-6]. Similarly tobacco use is associated with halitosis (foul odour), stained teeth, exposed roots, loss of taste and several other intra oral lesions [7,8]. Smokeless tobacco increases the risk for pharyngeal and oesophageal cancers [9]. There is emerging evidence relating maternal smoking with the development of cleft lip in the child [10-12]. Also, some studies relate maternal smoking to development of primary caries in children [13,14].

The harmful effects associated with the tobacco usage make it a serious public health issue which needs to be addressed with vigour and intensity. The tobacco cessation counselling is one of the most effective approach that can be directed towards the control of this serious public health issue. Dental professionals are in a perfect place and have many opportunities to provide Tobacco cessation counselling (TCC) to reduce the prevalence of tobacco use [15-17]. As dental treatment often requires multiple visits, hence it provides a system for initiation; reinforcement and support of tobacco cessation activities [7,18]. Dentists have the advantage to correlate cessation advice and subsequent follow up visits with the obvious visible changes in the oral status. Hence, dental office can be considered to be ideally suited to provide TCC. Despite of the potential, not many dentists are involved in TCC activities.

The factors that might have contributed towards the lack of the counselling by the dental professionals includes lack of knowledge and attitude, professional and personal barriers including the lack of professional training, anticipated negative feedback from patients, fear of patients leaving the practice, lack of confidence in their ability and skills to provide effective counselling [19,20].

In India, there has been increasing prevalence of tobacco use particularly among the adolescents and young adults due to lack of education, cultural impact and peer group influence. This provides with an opportunity for the dental health professionals to effectively provide tobacco cessation counselling in the office and community settings. However in the rural areas, where the habit of tobacco use is more prevalent, there is no organized dental health care delivery system. Majority of the dental services in the rural areas are still provided by the unqualified quacks and the dental hygienists who

	Dentists (n =120)	Dental hygienists (n = 120)
Response rate (%)	100.0%	100.0%
Mean Years practised (SD)	22.4 (9.1)	10.2 (7.6)
Tobacco use (%)		
Never	72.5%	62.7%
Gave up 1 to 12 months ago	4.1%	0.0%
Occasional	9.1%	12.8%
Regular	14.2%	24.5%
Received undergraduate education on tobacco use, prevention or cessation counselling (%)	106 (88.3%)	79 (65.8%)
Received continuing education on tobacco use prevention or cessation counselling (%)	45 (37.5%)	15 (12.5%)

[Table/Fig-1]: Response rate to the questionnaire, tobacco use and years of practice of dentist and dental hygienist

Attitude towards tobacco cessation counselling	Dentist (n=120)		Dental hygienist (n=120)	
	Yes	No	Yes	No
Dental health professionals should effectively advise their patients to quit smoking and tobacco use	83 (69.2%)	37 (30.8%)	65 (54.2%)	55 (45.8%)
Dental health professions be given specific training on tobacco cessation techniques	110 (91.7%)	10 (8.3%)	95 (79.2%)	25 (120.8%)
Dental health professionals can serve as role models for tobacco cessation among their patients	89 (74.2%)	31 (25.8%)	57 (47.5%)	63 (52.5%)
Tobacco cessation counselling be given equal priority as the dental treatment	62 (51.7%)	58 (48.3%)	26 (21.7%)	94 (78.3%)

[Table/Fig-2]: Attitude of the dentist and dental hygienist towards TCC

hardly practice tobacco cessation counselling in their routine dental practice. In the urban areas there have been concerns among the qualified dental professionals regarding the TCC in their dental settings [21].

The present study aims to assess the attitude of dental professionals including the dentist and dental hygienist towards the TCC and identify the possible barriers towards the implementation of these practices in the rural and urban areas of Modinagar district.

MATERIALS AND METHODS

The present cross-sectional survey was carried out among the dental professionals including the dentist and dental hygienist of the Modinagar district to assess their attitude and practice of tobacco cessation counselling in the dental office and identify the possible barriers towards implementation of such practices.

The stratified random sampling was employed to select 120 dentists and 120 dental hygienist from the urban and the rural areas of the Modinagar district respectively, which were registered with the state dental council. The informed consent was taken from the participants of the study and ethical clearance was obtained from the Institutional Review Board of D.J. College of Dental Sciences and Research Modinagar, Uttar Pradesh state.

The study tool comprised of the closed ended multiple choice questionnaire in the local language which was personally administered and pretested to check for the feasibility. The questionnaire comprised of four sections: socio – demographic profile, attitudes in tobacco cessation, practices in tobacco cessation interventions and related barriers towards implementation. The responses to the questionnaire were marked on the multiple choice two point scale.

The survey data were analysed using the SPSS 16 version software package. The descriptive statistics (frequency) was generated for the each question.

Practice of tobacco cessation counselling	Dentist		Dental Hygienist	
	Yes	No	Yes	No
Do you enquire from your patients about their tobacco habits?	99 (82.5%)	21 (17.5%)	74 (61.6%)	46 (38.4%)
Have your ever educated your patient regarding the tobacco cessation during your practice	73 (60.8%)	47 (39.2%)	65 (54.2%)	55 (45.8%)
Have you ever used the tobacco cessation aid like NRT gums, patches during your practice	15 (12.5%)	115 (87.5%)	07 (5.8%)	113 (94.2%)
Have you ever attended some programme regarding tobacco cessation counselling or discussed regarding TCC with your peer group	50 (41.6%)	70 (58.4%)	24 (20.0%)	96 (80.0%)

[Table/Fig-3]: Practice of the TCC by dentist and dental hygienist

Practice of tobacco cessation counselling	Dentist		Dental Hygienist	
	Yes	No	Yes	No
Enquiring tobacco habits would have negative impact on my clinical practice	20 (16.7%)	100 (83.3%)	31 (25.8%)	89 (74.2%)
Tobacco cessation counselling would take away precious time from your busy practice.	14 (11.7%)	106 (88.3%)	59 (49.2%)	61 (50.8%)
Lack of knowledge and adequate information prevents me from educating the patients about tobacco use	62 (51.7%)	58 (49.2%)	82 (68.3%)	38 (31.7%)
Educating the patients about tobacco use would lead to monetary loss in my clinical practice	08 (6.7%)	112 (93.5%)	24 (20.0%)	96 (80.0%)

[Table/Fig-4]: Barriers to TCC by dentist and dental hygienist

RESULTS

The information regarding the response rate to the questionnaire, tobacco use and years of practice of dentist and dental hygienist is outlined in [Table/Fig-1]. The response rate for the questionnaire among the dentist and dental hygienists was 100%. The mean years of dental practice were 22.4 ± 9.1 and 10.2 ±7.6 for the dentist and dental hygienist respectively. 72.5% of the dentist had never used the tobacco whereas 62.7% of the dental hygienist reported to be non tobacco users. The regular users of the tobacco were higher among the dental hygienist (24.5%) as compared to the dentist (14.2%). Further the survey results revealed that majority of the dentist (88.3%) had received the undergraduate training on TCC as compared to only 65.8% among the dental hygienist [Table/Fig-1].

The responses to the items related to the attitude of the dental professionals towards TCC are shown in the [Table/Fig-2]. The attitude of the majority of dentist towards the TCC was positive as compared to the dental hygienist. 69.2% of the dentist were of the view that the dental health professionals should provide TCC as compared to 54.2% among the hygienist. 91.7% of the dentist had positive attitude towards the specific training for the TCC. However, the attitude of the dental professionals was negative towards the equal priority of the TCC over the dental treatment in the dental practice.

The practice of the TCC by the dental professionals of the Modinagar district are outlined in the responses of the questions in [Table/Fig-3]. Only 12.5% and 5.8% of the dentist and dental hygienist had ever used the nicotine replacement therapy in their dental practice. 20.0% of the dental hygienist had attended some continuing dental education programme or discussed TCC with the peer professionals. However, About 60% of the dental professionals including dentist and dental hygienist had ever educated about TCC to their patients and 82.5% of the dentists enquire from your patients about their tobacco habits.

The responses to the questions on barriers to TCC by dentist and dental hygienist are shown in the [Table/Fig-4]. The lack of the

knowledge and information regarding TCC was the only perceived barrier among the dentists (51.7%) and dental hygienist (68.3%). Majority of the dentist and hygienist responded in negative to the questions on monetary loss, time constraint and fear of negative impact on clinical practice as the barriers towards TCC.

DISCUSSION

In the present study only 14.2% of the dentist and 24.5% of the dental hygienist were found to be current smokers. With these findings, the concept of health professionals being the role models has got a strong support. The data from the European studies indicate that 71% of the health professionals view themselves as the role models for the tobacco cessation. In Sweden, smoking prevalence among Swedish physicians [22] has regularly declined from 46% in the 1960's to a current 6%, with general practitioners the least likely to smoke, at 4%. In Finland [23], smoking among male doctors has decreased from 60% to 7% in 30 years. Similar findings have been noted in the USA, Great Britain and Australia [24]. The significance of these dentists' habits should not be underestimated when the profession should be involved in national anti- tobacco campaigns, especially with the youth of the country. It seems logical to state that if health professionals (dentists here) are role models and when health professionals are not smoking, then the effectiveness of counselling to patients will be increased.

The study results have shown that the dentist and the dental hygienist reflected the positive attitude towards the TCC in the dental practice. 69.2% of the dentist agreed to view that the dental health professionals should effectively advise their patients to quit smoking and 91% of the dentist supported the specific training programmes on tobacco cessation techniques. Similarly 54.2% of the dental hygienist supported the view of TCC and 79.2% were interested in specific training programmes. The findings are in agreement with the study of Mc Cartan et al., on attitude of the Irish dentist, dental hygienist and dental nurse towards tobacco cessation [25].

In the present study, 82.5% of the dentist and 61.6% of the dental hygienist reported that they enquire about the tobacco habits from the patients during their routine clinical dental practice. In the results from the similar study Sahoo et al., reported that only 52% of the dental health professionals enquire about tobacco use [26]. The findings of the present study are quite encouraging in the light of the fact that oral health care providers represent a key health resource in reducing tobacco use. The approach of the dental professionals towards the use of Nicotine replacement therapy has been found to be discouraging. Only 12.5% of the dentist and 5.8% of the dental hygienist had ever used NRT for tobacco counselling. This might be attributed to lack of information about the products availability, inconsistent academic detailing of the dental professionals' regarding these products by pharmaceutical companies and high cost of these products [27].

Lack of knowledge, information and training, not the financial loss and time constraints have been found to be barrier in the implementation of Tobacco cessation strategies in the present survey by the dental professionals. The findings are in agreement with study of Hastreiter R et al., [28], Albert D [19]. Tobacco-use cessation education provided in dental schools is neither comprehensive nor systematic; much of the effort is directed at the consequences of smoking and little attention is paid to cessation activities [29]. Nearly 25% of dental schools and 36% of dental hygiene schools do not include questions about tobacco on their health history forms. There are few continuing education courses that specifically address tobacco-use cessation, and only 19% of dentists or dental hygienists have completed formal training in tobacco-use cessation [30]. The inclusion of TCC in Undergraduate curriculum is the need of the hour. There was a unanimous voice of the responding professionals in this study towards inclusion of TCC training in the curriculum. There should be continuing dental education programs for clinicians to better and sharpen their skills in TCC and harvest their confidence in a positive direction to carry out the interventions.

Now the question that arises here is: - Can the dental professionals raise to this mounting challenge of tobacco cessation interventions? Dr. William Foege, who directed the smallpox global eradication program, once said, "One individual who is given a challenge will say, 'I can't do that.' Another will respond, 'I can.' Both are right" [7]. Now it is up to the dental professionals; to what individual they want to be characterized with. But it is important for the dental professionals to rise to the occasion. Smoking cessation programmes delivered in medical and dental offices have proven successful with one year quit rates at between 5% and 15% and have become increasingly attractive as an avenue for promoting a smoke-free environment. The American Dental Association and the American Dental Hygienists Association strongly support tobacco intervention training for their members. Frequent contact over time with an oral health worker trained to provide tobacco use cessation counselling improves the success of quit attempts [31-38].

Some of the acknowledged limitations of the study are that there was no age and gender characterization in the study. There was also no characterization on the basis of postgraduate/undergraduate qualification and hence results could not be stratified and compared on the basis of demographic details.

CONCLUSION

Dental professionals must expand their horizon and armamentarium to include TCC strategies inclusive of their regular preventive and therapeutic treatment modalities. Also the dental institutions should include TCC in the curriculum, but it should not be just theoretical knowledge, rather it must have a practical component so that the upcoming bunch of professionals have the requisite and desired competency to fight one of the preventable cause of death. Students and Interns should also be inspired and motivated to carry out tobacco awareness and cessation programs especially at the rural level. It is also recommended to train the dental professionals at the primary and community health care levels in the treatment of tobacco dependence, as most people in India cannot afford to go to specialist TCC centre's nor can the government afford to run them on large scale

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PARTICULARS OF CONTRIBUTORS:
1. Reader, Department of Public Health Dentistry, D.J. College of Dental Sciences and Research, Modinagar, India.
2. Professor and Head of Department, Department of Public Health Dentistry, D.J. College of Dental Sciences and Research, Modinagar, India.
3. Postgraduate Student, Department of Public Health Dentistry, D.J. College of Dental Sciences and Research, Modinagar, India.
4. Postgraduate Student, Department of Public Health Dentistry, D.J. College of Dental Sciences and Research, Modinagar, India.
5. Postgraduate Student, Department of Public Health Dentistry, D.J. College of Dental Sciences and Research, Modinagar, India.
6. Postgraduate Student, Department of Public Health Dentistry, D.J. College of Dental Sciences and Research, Modinagar, India.
7. Postgraduate Student, Department of Public Health Dentistry, D.J. College of Dental Sciences and Research, Modinagar, India.
8. Postgraduate Student, Department of Public Health Dentistry, D.J. College of Dental Sciences and Research, Modinagar, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:
Dr. Ashish Singla,
Reader, Department of Public Health Dentistry, D.J. College of Dental Sciences and Research,
Modinagar, Niwari Road, Modi Nagar-201204, India.
Phone : 9997438027, E-mail : drashishsingla@gmail.com

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