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Original Research

Tobacco Cessation Practices among Dental Health Professionals in Bengaluru City

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Abstract:

Background: Dental health professionals (DHPs) are in ideal position to provide tobacco intervention services to tobacco users and assist them in the quitting process. However, lack of training in effective tobacco interventions is an important barrier to incorporating tobacco cessation services into routine dental practice. This study was undertaken to assess the knowledge, attitude, and practice regarding tobacco cessation among DHPs in Bengaluru city, India.

Materials and Methods: A cross-sectional questionnaire study was conducted among 266 DHPs from various dental colleges across Bengaluru city, India. The questionnaire comprised of 32 items and used a four-point Likert scale (strongly agree/agree/disagree/strongly disagree) was used to assess attitudinal variables and three-point Likert scale (always/nearly, always, sometimes, rarely/never) was used to measure levels of reported activity. The survey data was analyzed using the SPSS 16 version software package. Descriptive statistics (frequency) was generated for the each question to assess their attitude and practice.

Results: The response rate for the questionnaire was 100%. The mean age of the clinicians was around 32 ± 5 years, and about 55% of the participants were females. About 71.9% of the DHPs never used tobacco in any form, 28% used tobacco; of them 23.5% were regular users (all smokers), and 4.5% were occasional smokers. All of them were aware that tobacco use was linked to various cancers including oral cancers and lung diseases. All DHPs routinely asked their patients about tobacco use; 27% provided brief advice on tobacco cessation, and 9% followed up on their patients quit attempts. A lack of training was considered the most important barrier by almost all the participants, and 82% strongly agreed that training is essential to provide tobacco cessation services to patients.

Conclusion: In the present study, although dentists possessed knowledge about tobacco cessation, it was not adequate. Dental professionals play an important role in educating patients regarding the oral health risks of tobacco use and motivating them to quit. Widespread implementation of effective tobacco cessation training programs for health professionals is needed.

Key Words: Attitude, dental health professionals, tobacco cessation training

Introduction

India being a home for 120 million tobacco users, approximately 12% of the world's tobacco users, it is on the verge of an unparalleled health crisis. About 900,000 people die every year in India, due to tobacco use and WHO predicts that it may exceed 1.5 million annually by 2020.[1,2] The high prevalence of head and neck cancers in India is attributed to extensive tobacco use, especially chewing tobacco.[3-5] Because of the diverse patterns of tobacco consumption in India: Smoking, chewing, applying, sucking, gargling, cleansing, etc., tobacco problem is more complex than probably most countries in the world, and hence a large, consequential burden of tobacco-related morbidity and mortality.[6] Therefore, involving healthcare providers in planning effective tobacco cessation and prevention programs is essential to increase the abstinence rates in the population. Since tobacco use is not only a major risk factor for general health, but it also contributes substantially to oral health problems. Dental health professionals (DHPs) are in a unique position to provide salient, immediate feedback about tobacco use and oral health, which can be a teachable moment and a powerful motivational tool to quit tobacco. Moreover, DHPs form the first contact point of most chewable tobacco using patients.

A literature search has shown that even brief interventions in tobacco cessation by health professionals is very effective and increases the abstinence rates significantly compared to no advice.[7,8] Hence, it is imperative for DHPs to utilize the opportunity available during their contact with patients to offer tobacco cessation interventions actively in their routine clinical practice.[9] However, lack of training in effective interventions is a barrier to incorporating tobacco cessation interventions into routine practice.[10,11] DHPs with sound knowledge and training in tobacco cessation interventions will participate more in tobacco cessation counseling activities, and the intervention is more likely to be successful. There are very few studies in the literature that have assessed DHPs knowledge regarding oral and systemic effects of tobacco use, effects of passive smoking, personal tobacco use status, knowledge regarding tobacco intervention programs, adequacy, attitude, and confidence\ skills to provide tobacco intervention services, years of private

practice experience, adequacy of tobacco intervention topics covered didactically and clinically during their education in dental institutions, other structural barriers such as lack of a tracking system in the college for tobacco-using patients, lack of adequate space, and privacy to counsel patients. The current study has addressed some of the gaps mentioned above in the literature and has assessed the perceived barriers faced by DHPs of Bengaluru city in providing tobacco intervention services before sensitization in tobacco cessation intervention.

Materials and Methods

We randomly selected a total of 266 DHPs (teaching faculty) from Bengaluru dental colleges, Karnataka during the period, January 2012-September 2013. For the qualitative part of the study; we used a purposeful convenience sampling. Informed consent was taken from all the participants of the study, and ethical clearance was obtained from the Institutional Review Board. A self-administered questionnaire was developed based on the following studies[12-14] and then piloted to test for comprehensibility. This was administered prior to sensitization programs on tobacco intervention. It was given to all participants, and they were asked to indicate their agreement. Four-point Likert scale (strongly agree/agree/disagree/strongly disagree) was used to assess attitudinal variables and three-point Likert scale (always/nearly always, sometimes, rarely/never) was used to measure levels of reported activity. Data analysis has been done using statistical package.

The questionnaire comprised of questions in the following categories:

- Personal data
- Years of private practice experience
- Personal tobacco use status
- Knowledge related to adverse effects of tobacco use on general and oral health
- Attitude and practice related to provision of tobacco intervention services
- Barriers related to provision of tobacco intervention services
- Tobacco intervention curriculum coverage at the dental college (didactic and clinical)
- Other structural barriers such as lack of a tracking system in the college for tobacco-using patients, lack of adequate space, and privacy to counsel patients.

Data analysis

Data collected were entered into the computer with Microsoft Excel, cross-checked, and analyzed using the statistical software SPSS 16 version.

Results

The response rate for the questionnaire among the DHPs was 100%. The mean age of the clinicians was around 32 ± 5 years, and about 55% of the participants were females. About 72% of the DHPs were private practitioners along with being academicians with 10.5 ± 4.1 mean years of dental practice, respectively. About 71.9% of the DHPs never used tobacco in any form, 28% used tobacco; of them 23.5% were regular users (all smokers), and 4.5% of them used tobacco occasionally. The mean number of patients seen on a monthly basis was around 900 ± 100, of them about 36% of their patients used tobacco, predominantly the chewing form.

All DHPs (100%) were aware that tobacco use was linked to various cancers including oral cancers and other diseases. About 91% agreed that passive smoking was also linked to lung diseases and various cancers and 82% believed that maternal smoking was injurious to the child's health and a risk factor to sudden infant death syndrome. All of them felt that it was the moral and ethical responsibility of every dentist to encourage and motivate patients to quit tobacco use. All of them routinely asked their patients about tobacco use; 27% provided brief advice on tobacco cessation and 9% followed up on their patients quit attempts.

Of these barrier statements, lack of training (inadequate skills and knowledge) was considered the most important barrier by almost all the participants. About 82% of the DHPs strongly agreed that training is essential to provide tobacco cessation services to patients. All DHPs reported that none of them had separate tobacco intervention topics covered either didactically and\or clinically during their education in dental institutions.

Discussion

In India, the proportion of all deaths that can be attributed to tobacco use is expected to rise substantially in the next few years, unless tobacco users are encouraged to quit. In this regard, health care professionals due to their position in society, have a unique role in tobacco control. Randomized controlled trials have demonstrated that brief more advice from a health professional increases abstinence rates significantly by 30% as compared to no advice.[8] Therefore, every opportunity available must be utilized to offer tobacco cessation interventions actively in routine clinical practice.[15]

Our study attempted to understand the knowledge, attitude, and practices of dental professionals prior to providing training in tobacco intervention services. The study group consisted of DHPs who were basically academicians associated with dental institutions with a most of them into private practice for 9.5 ± 4.1 mean years seeing about 1000 patients every month. About 28% of the DHPs used tobacco (Table 1) contrary to 22%; and 14.2% in other studies, which is high, and a cause for concern.[9,16] When DHPs are not using tobacco, then the effectiveness of counseling to patients will be increased. Most health professionals often fall prey to tobacco even before embarking on a career in health sciences. They have a certain responsibility as being role models for patients with regard to healthy lifestyle being primary health care providers, as well as the public image, they inadvertently portray as outside of

the work environment. In our study, most of the DHPs had adequate knowledge on ill effects of active and passive tobacco use and maternal tobacco use.

In our study, 100% of the participants felt that it is the moral and ethical responsibility of every dentist to encourage and motivate patients to quit tobacco use, which is in close agreement with the other studies.[17,18] Due to their long interaction with the patients, they can play a pivotal role in identification and providing cessation services to tobacco users, which can be of enormous help in tobacco control. Almost all DHPs supported a ban on public use of tobacco, strict legislation on tobacco use and increase in prices of tobacco products as means of curbing tobacco use.

In our study all of them, 100% routinely asked their patients about tobacco use in contrast to 52% and 74% in various studies.[16,19] About 27% spent <2 min in tobacco cessation counseling per patient per visit and 9% followed up on their patients quit attempts and also referred them to deaddiction centers wherever essential. According to various Indian studies, most doctors did not ask for or suggest methods to quit tobacco.[20,21] Similarly, in our study also only a minority of the DHPs actively participated in tobacco intervention services.

Regarding treatment modalities it was found to be very discouraging with only 18% been aware of behavioral counseling and 19% for nicotine replacement therapy (NRT) (Table 2). In a similar study, one-third of the dentists were aware of behavioral methods of tobacco cessation and about half of them were aware of different forms of NRT.[16] This reflects the lacunae in the knowledge and practices of DHPs, and hence the need to train them in the different treatment modalities of tobacco cessation as it would certainly improve the cessation rates.

Of the barrier statements, lack of training (inadequate skills and knowledge) was considered the most important barrier by almost all the participants (Table 3) along with other barriers like lack of time, and lack of printed resources similar to various other studies though the percentage on these aspects differs slightly.[17,18,22] Literature search and our own experience indicate that, in practice, most DHPs are not routinely addressing tobacco use in a systematic manner and that one of the primary barriers to incorporating tobacco cessation into routine practice is the lack of training in effective interventions. Overall, 82% of the DHPs strongly agreed that training is essential to provide tobacco cessation services to patients in contrast to 58% among Bhopal dentists.[17] Since more than 50% of the Bengaluru dental professionals practice, they should be well-trained in delivering tobacco cessation services so that they practice it in the institutions, as well as in private practice settings. Dentists with training and appropriate remuneration could guide many of their patients who use tobacco to successful quit attempts.[23]

Table 1: Response rate to baseline characteristics of DHPs.

Characteristics	*N* (%)
Gender	
Male	120 (45)
Female	146 (55)
Mean age	32±5 years
Years of private practice	10.5±4.1 years
Personal tobacco use	
Never used	191 (71.9)
Tobacco users	75 (28)
Regular use	63 (23.5)
Occasional use	12 (4.5)
Type of tobacco used by DHPs	Smoking (100)
Number of outpatients\per month	900±100
Average percentage of patients using tobacco	25-50%
Type of tobacco used by patients predominantly	Chewing tobacco

DHP: Dental health professionals

Table 2: KAP of DHPs regarding tobacco and its harmful effects.

Variables	Response (%)
Knowledge of harmful effects	
Tobacco use is associated with various cancers	100 (100)
Passive smoking is associated with various cancers and respiratory diseases	100 (100)
Maternal smoking is injurious to child's health	242 (91)
Nicotine in tobacco is the addictive ingredient	100 (100)
Attitude	
Have an important role to play in tobacco intervention services	100%
Support ban on public use of tobacco	242 (91)
Support increase in prices of tobacco products	192 (72)
Support strict legislation on tobacco use	253 (95)
Practice	
Ask routinely about tobacco use	100%
Advocate tobacco cessation practices actively	72 (27)
Followed up on advice to patients to quit	24 (9)
Knowledge of treatment modalities	
Aware of behavioral methods	48 (18)
Aware of pharmacotherapy	24 (9)

DHP: Dental health professionals

Table 3: DHPs responses regarding barrier to providing tobacco cessation intervention.

Variables	Response (%)
Fear of losing patients	24 (9)
Fear of upsetting patients\patient resistance	19 (7)
Lack of time	16 (6)
Lack of formal training	194 (73)
Lack of financial reimbursement	8 (3)
Lack of support staff and adequate space for privacy to counsel patients	5 (2)

DHP: Dental health professionals

In our study, all participants reported that they were not taught tobacco cessation counseling strategies neither didactically or clinically during their education in dental institutions. About 17% of US dental schools had tobacco cessation teaching incorporated in some dental subject curriculum and did not devote separate teaching hours for tobacco cessation, while approximately 33% of these schools did not have a tobacco

cessation curriculum.[10] Grinstead *et al*.,[24] in 1993 found that more schools were tobacco-free and had a tobacco policy in the schools, as compared to the 1989 survey. In recent years, much progress has been made in tobacco curriculum development and adopting various teaching methods by US dental schools. If the tobacco intervention topics are not covered thoroughly, then this could be a barrier in providing intervention services. Curriculum content for dental students should include biological and psychosocial aspects of tobacco use, the history of tobacco culture, prevention and treatment of tobacco addiction, and development of clinical skills in counseling, etc.[25] Dental institutions should include tobacco cessation in the curriculum, both theoretical and the practical components so that young professionals have the requisite competency to fight this deadly addiction.

The current study has addressed some of the gaps mentioned above in the literature and has assessed perceived barriers faced by the DHPs in providing tobacco intervention services. DHPs who lack knowledge in any of the areas mentioned above related to tobacco intervention will not be able to provide tobacco intervention services successfully. Hence, emphasis should be placed on training DHPs on counseling techniques, nicotine replacement medications, and referral programs in dental institutions as the practitioners feel unprepared in these areas.

Conclusion

As dental treatment often requires multiple visits, it provides a system for initiation; reinforcement and support of tobacco cessation activities. Since dentist play an important role in tobacco cessation at both clinical and community levels, it is essential to sensitize and train them in the treatment of nicotine dependence for successful achievement of the goal of "Tobacco Free Society."

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