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Dentists' Practice and Perceived Barriers towards Smoking Cessation and Intervention in Karachi, Pakistan

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Abstract

The prevention and control of tobacco use is becoming of global significance. Health care workers need to implement tobacco cessation as part of their daily practice. The aim of this study was to identify dentists' current practice regarding smoking cessation and prevention as well as to identify the barriers that hinder them to deliver smoking cessation advice.

A survey based study was conducted in October 2015 to determine the practices, willingness, and perceived barriers of dentists in relation to smoking cessation in dental care setting. A pretested, close-ended, self-administered, questionnaire was distributed among the dental health practitioners working in public sector and private dental clinics. The collected data was analyzed for frequency distributions and χ^2. Most of the participants (78.61%) agreed that dentist has an important role in smoking cessation, 11% differ and 10.2% were not well versed with their role. Majority (76.54%) explained smokers the impact of smoking on their general and dental health. Around 72% advised and (50.61%) assisted patients who smoke and are willing to give up. Overall, the dentists had a positive approach in tobacco cessation counseling for the patients; though lack of resources and time, inappropriate clinical knowledge and skills needed for the prevention and cessation of tobacco use were the major recognized barriers.

Keywords Dentists; Smoking prevention and cessation; Practice; Barriers; Pakistan

Introduction

The rate of tobacco users decline in many developed countries of Northern America and Europe in current ages but there is a gradual upturn in developing countries of Asia Pacific region including Pakistan, Malaysia, Indonesia and Vietnam [1]. These countries are now representing as the fastest growing top four countries of tobacco market in the world. Nowadays trend of tobacco consumption is increasing day by day rapidly in Pakistan and it is rated as forth top most country of the world consumer in tobacco market. In Pakistan, approximately 40% males and 9% females are smoking and this figure is rising day by day [2]. Tobacco kills approximately six million people every year in the world, among them 600,000 are non-smokers dying from passive smoking [3]. Despite containing nicotine, smoking is a source of toxic chemicals including tar, aromatic hydrocarbons, phenol, b-napthylamine, nitrosamines, hydrazine and vinyl chloride that causes cancer. Smoke also produces carbon monoxide which affect not badly only smokers but also surrounding environment [4].

Tobacco dependence is a chronic disease that requires repeated intervention and several efforts to quit. There are an obvious signs of tobacco withdrawal like craving for smoking, depression, insomnia, irritability, worry, discomfort, lack of alertness and concentration, restlessness and increased appetite, etc. Dental professionals play an important job in recognizing smokers, as they may observe intraoral signs such as odor, tooth stains, and oral hygiene problems earlier than other healthcare professionals; consequently they are in a better position to offer preventive care [5,6].

Dentist's comprehension about tobacco use and different methods offered for its cessation is critical, along with increased participation of dental professionals in antismoking camp aigns to minimize smoking-related detrimental effects [7]. The guideline model for management of tobacco use and dependence is the implementation of the 5A's [8]:

- Ask or screen about smoking
- Advise to quit
- Assess willingness to quit
- Assist with quitting
- Arrange for follow–up

Health care workers need to implement tobacco cessation as part of their daily practice. In Pakistan, the practice and attitude of dentists towards anti-smoking clinical implementation is so far not appraised. The aim of this study was to identify dentists' attitudes and current practice regarding smoking cessation and prevention as well as to identify the barriers that hinder them to deliver smoking cessation advice.

Materials and Methods

A questionnaire based study was conducted in October 2015 to determine the practices, willingness, and perceived barriers of dentists in relation to smoking cessation in dental care setting. A pretested, close-ended, self-administered, questionnaire was distributed among

the dental health practitioners working in public sector and private dental clinics. Out of 120 questionnaires distributed by direct contact, 81 dentists completely filled out and returned the questionnaire. Questionnaire items solicited data on participants' socio demographic characteristics (age, gender, position, organization, year of experience, patients / day, working hours / week). Eleven questions were used to assess participants' current practice regarding smoking cessation. Nine questions focused on participants' perceived barriers in helping patients to quit smoking. Each questionnaire was accompanied by a cover letter explaining the purpose of the study and providing specific instructions for questionnaire completion. Standard procedures of informed consent were used, including the protection of participant's anonymity and confidentiality. The collected data were entered into Statistical Package for Social Sciences (SPSS), version 20.0 and were analyzed for frequency distributions and χ^2.

Results

The response rate of the study was 67.5% (27.16% male and 71.6% female). There were 62 (76.54%) general practitioners and 19 (23.45%) specialists. Most of the respondents (90.12%) were in the age range of 25-30 years and the least (1.23%) were in range of 36-40 years (Table 1). Forty nine dentists (60.49%) have an experience in the range of 1-5 years. Twenty six dentists (32.09%) have less than one year in their profession. Most of the respondents (87.65%) described their practice as governmental. Regarding their weekly working hours; 49.38% and 27.16% spent 26-30 and 31-40 hours per week respectively. Only a small portion (8.64%) indicated their working hours to be less than 20 hours. Most dentists 54.32% stated that they see less than 10 patients per day, while 38.27% see 10 to 20 patients per day. Most of the participants (78.9%) treated both genders. Majority of participants (78.61%) agreed that the dentist has an important role in smoking cessation, 11% differ and 10.2% were not well versed with their role in smoking cessation (Figure 1).

Table 2 depicted participants' current practice regarding smoking cessation. Questions on 'Assist for treatment' and 'Arrange for follow-up' sum up the five A's of the guiding principles and the respondents were asked the extent to which they assist their patient to quit. Sixty two (76.54%) explained smokers the impact of smoking on their general and dental health. Fifty nine (72.83%) asked all new patients about their smoking habits. Around 72% advised and 50.61% assisted patients who smoke and are willing to give up. The position of participants persuade their willingness to advise patients who smoke to give up ($p = 0.049$) and their perceived barrier that most tobacco users can't stop, even they tried ($p = 0.029$). Two third of the participants (76.54%) negated that they involve dental team in helping patients with smoking issues. Only 16.04% and 17.28% kept records of patients' smoking status and utilized religion rules and regulations for patients' advice to quit smoking respectively. Fifty eight (71.60%) negated to provide smoking cessation pamphlets and posters in the waiting room so patients can help themselves. Thirty nine (48.14%) discussed the use of nicotine replacement therapy with patients who smoke. Gender of participants influence their time to advise the patient to quit ($p = 0.026$), explain the impact of smoking on their general and dental health ($p < 0.0001$) and asking about their smoking habits ($p = 0.026$). More experienced practitioners referred their patients to appropriate services (cessation clinic or other health care professional) to help them ($p = 0.036$) and utilized religion rules and regulations for patient's advice ($p = 0.020$). Furthermore they follow-up with the patients' progress in giving up smoking ($p = 0.048$). Frequency of patients / day effect participants to advise patients ($p = 0.006$) and their potential to keep records of patients' smoking status ($p = 0.011$).

Variable	Number (Percentages)
Gender	
Male	22 (27.16%)
Female	58 (71.60%)
Age	
25-30 years	73 (90.12%)
31-35 years	7 (8.64%)
36-40 years	1 (1.23%)
Organization	
Private	10 (12.34%)
Government	71 (87.65%)
Position / level	
Specialist	19 (23.45%)
General Practitioner	62 (76.54%)
Year of experience	
< 1 year	26 (32.09%)
1-5 years	49 (60.49%)
6-10 years	5 (6.17%)
11-15 years	1 (1.23%)
Patients / day	
< 10	44 (54.32%)
10 to 20	31 (38.27%)
21-30	4 (4.93%)
31-40	1 (1.23%)
> 40	1 (1.23%)
Working hours / week	
< 20	7 (8.64%)
21-25	9 (11.11%)
26-30	40 (49.38%)
31-40	22 (27.16%)
41-50	1 (1.23%)
Smoking Habits	
Smoker	4 (4.93%)
Non-smoker	77 (95.06%)

Table 1: Demographic characteristics of the study sample.

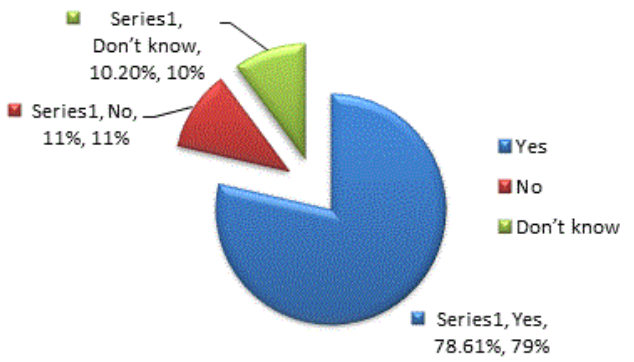

Figure 1: Response to dentist role in smoking prevention.

S.No	Item	Yes	No	Sometimes
1	I ask all new patients about their smoking habits	59 (72.83%)	7 (8.64%)	15 (18.51%)
2	I advise patients who smoke and are willing to give up	58 (71.60%)	12 (14.81%)	11 (13.58%)
3	I explain smokers the impact of smoking on their general and dental health	62 (76.54%)	3 (3.70%)	16 (19.75%)
4	I refer patients to appropriate services to help them stop smoking (cessation clinic or other health care professional)	33 (40.74%)	35 (43.20%)	13 (16.04%)
5	I assist patients who are willing to give up smoking	41 (50.61%)	26 (32.09%)	14 (17.28%)
6	I provide smoking cessation pamphlets and posters in the waiting room so patients can help themselves	13 (16.04%)	58 (71.60%)	10 (12.34%)
7	I discuss the use of nicotine replacement therapy with patients who smoke	18 (22.22%)	39 (48.14%)	24 (29.62%)
8	I utilize religion rules and regulations for patients' advice to quit smoking	14 (17.28%)	50 (61.72%)	17 (20.98%)
9	I am involving the dental team in helping patients with smoking issues	13 (16.04%)	62 (76.54%)	6 (7.4%)
10	I am following-up with the patients' progress in giving up smoking	20 (24.69%)	44 (54.32%)	17 (20.98%)
11	I do keep records of patients' smoking status	13 (16.04%)	59 (72.83%)	9 (11.11%)

Table 2: Participants' current practice regarding smoking cessation.

Perspective of participants 'Most tobacco users can't stop, even they tried' (70.37%), lack of adequate patient education materials (69.13%) and adequate referral resources (67.9%) were the participants' major perceived barriers in helping patients to quit smoking (Figure 2). Patients do not want to discuss quitting (58.02%) and it isn't the dentist's responsibility to convince people (41.97%) were also the noticeable barriers. Participants rendering their services in public settings have not adequate referral resources ($p < 0.0001$) and they were not concerned that patients will leave the practice ($p = 0.007$). Greater working hours of participants hinder them to advise ($p = 0.006$) and assist ($p = 0.011$) patients, explain the impact of smoking on their general and dental health ($p = 0016$), referring patients to appropriate services to help them stop smoking ($p = 0.010$), utilizing religion rules and regulations for patient's advice ($p = 0.041$), record keeping of patients' smoking status ($p = 0.004$).

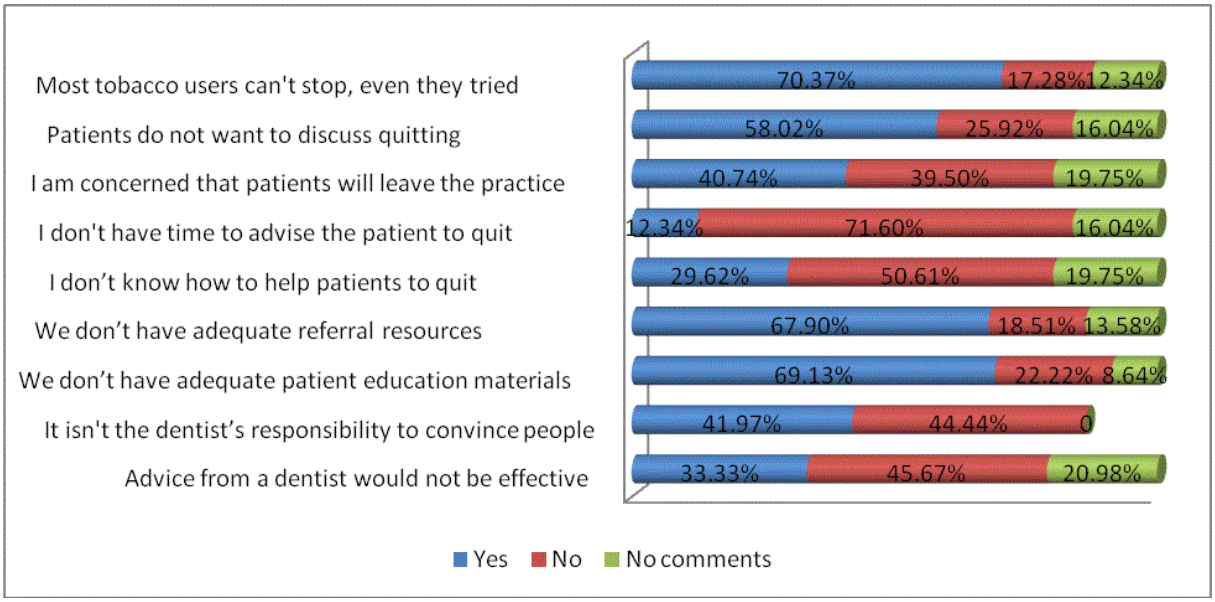

Figure 2: Participants' perceived barriers in helping patients to quit smoking.

Discussion

Tobacco use and associated health impacts pose a considerable problem globally, and is among the primary causes of morbidity and mortality. Studies have highlighted the need for contribution of different healthcare professionals in resisting tobacco use [9]. A little number of smokers (4.93%) was found in our study, which is in consistent with other reported smoking prevalence among healthcare professionals [10] and inferior in comparison to the prevalence of smoking (20.3%) among dental professionals [11]. Smoking prevalence amongst health professionals is itself often a barrier for their participation in tobacco control.

In our study most of the participants (78.61%) agreed that dentist has an important role in smoking cessation. This finding is in line with other studies [12,13] which has consistently found that generally the dentists consider themselves to be an important healthcare professional to counsel patients about their tobacco use. It was in contrast with the results reported by Victorian dentists who were doubtful of their role in smoking cessation and require support to integrate smoking cessation as component of their role [14]. Skegg et al. [15] reported that a large proportion of dentists in New Zealand, were hardly ever involved in smoking cessation activities and not include such activities as a part of dentistry. This uncertain approach and inconsistent views to responsibilities may be attributable to the variability of understanding and the acquaintance of perceived duties in profession among different dental communities. Dentists can help out their patients to stop smoking by identifying oral signs of tobacco use, notifying patients of these and inquiring patients their willingness to discontinue. Consequently they can refer them to smoking cessation services. By enquiring and providing advice, members of the dental team can help patients from pre-contemplation, through contemplation towards action [16]. In our study nearly two third participants asked all new patients about their smoking habits and explained to smokers the impact of smoking on their general and dental health. Saddichha [9] reported that half of the clinicians (52%) asked all their patients for tobacco use. Small fraction of the surveyed dentists showed a high level of patient-based activities about smoking cessation. The activities conducted include assisting patients who smoke to give up, referring patients to smoking cessation programs, giving self-help education material, keeping records, follow-ups or discussing nicotine replacement therapy. The findings indicated that the participants are not well versed to the extent of their responsibility and role in tobacco cessation owing to an inadequate knowledge and training [17].

Research point toward the facts that only a small number of dentists put into practice smoking cessation intervention as a regular part of their dental care [18]. Majority of the dentists do not follow tobacco cessation strategy yielding ineffective advices [19]. This study gave some insight about the complexities involved in serving patients to give up smoking and the obstacles that might face the dentists in smoking cessation, needed to be addressed to support dentists to confer smoking with patients on regular basis. In this study, participants' perception 'most tobacco users can't stop, even they tried' (70.37%), lack of adequate patient education materials (69.13%) and adequate referral resources (67.9%) were the participants' major perceived barriers in helping patients to quit smoking. These findings are in accordance of several studies [20,21], that includes unavailability of good communication between dental office and smoking cessation programs. Another study reported that patient's gender acts as a barrier to execute smoking cessation activities [11]. The gender issue is in association with the religious influences prevailing in Pakistani society. Also demanding practice in term of increased number of patients was one of the factor associated with lack of participation towards smoking cessation [22]. In our study frequency of patients / day effect participants to advise patients who smoke to give up ($p = 0.006$) and their potential to keep records of patients' smoking status ($p = 0.011$).

Pakistan lacks a required infrastructure of tobacco cessation clinics or programmes to boost up the health professionals' input.

Furthermore there are insufficient guidelines for providing assistance to healthcare professionals so that they can put in their skills to the tobacco cessation strategies. Hence, we propose that dental professionals should receive appropriate training and obtain clinical knowledge and skills needed for the prevention and cessation of tobacco use.

The joint WHO / FDI Tobacco Control Advocacy Guide, particularly tailored for oral health professional, can be employed as a basic tool for training with modifications to integrate gender oriented, culturally sensitive patient-doctor interactions.

References

1. Jemal A, Bray F, Center MM, Ferlay J, Ward E, et al. (2011) Global cancer statistics. CA Cancer J Clin 61: 69-90.
2. Malik AK, Chaudhry A, Karamat A, Arif N, Cheema MA, et al. (2010) Cigarette smoking and health care professionals at Mayo Hospital, Lahore, Pakistan. J Pak Med Assoc 60: 509-512.
3. Mpabulungi L, Muula AS (2004) Tobacco use among high school students in Kampala, Uganda: questionnaire study. Croat Med J 45: 80-83.
4. Michell L (1997) Loud, sad or bad: young people's perceptions of peer groups and smoking. Health Educ Res 12: 1-14.
5. Davis JM, Ramseier CA, Mattheos N, SchoonheimKlein M, Compton S, et al. (2010) Education of tobacco use prevention and cessation for dental professionalsa paradigm shift. Int Dent J 60: 60-72.
6. Wiener RC, Pla RMW (2011) Evaluation of educational material for tobacco prevention and cessation used in West Virginia University Dental Programs. J Dent Hyg 85: 204-210.
7. Ehizele A, Chiwuzie J, Ofili A (2011) Oral health knowledge, attitude and practices among Nigerian primary school teachers. Int J Den Hygiene 9: 254-260.
8. Fiore M (2008) Treating tobacco use and dependence. Clinical practice guideline: Diane Publishing.
9. Saddichha S, Rekha DP, Patil BK, Murthy P, Benegal V, et al. (2010) Knowledge, attitude and practices of Indian dental surgeons towards tobacco control: advances towards prevention. Asian Pac J Cancer Prev 11: 939-942.
10. Seckerwalker RH, Solomon LJ, Flynn BS, Dana GS (1994) Comparisons of the smoking cessation counseling activities of six types of health-professionals. Preventive medicine 23: 800-808.
11. Mumtaz R, Khan AA, Moeen F, Noor N, Humayun S (2008) The role of Pakistani dentists in tobacco cessation. Int Dent J 58: 356-362.
12. Hastreiter RJ, Bakdash B, Roesch MH, Walseth J (1994) Use of tobacco prevention and cessation strategies and techniques in the dental office. J Am Dent Assoc 125: 1475-1484.
13. Chestnutt I, Binnie V (1995) Smoking cessation counselling--a role for the dental profession? Br Dent J 179: 411-415.
14. Mullins R (1994) Attitudes and smoking habits of dentists in Victoria: 16 years on. Aust Dent J 39: 324-326.
15. Skegg J, McGee R, Stewart A (1995) Smoking prevention: attitudes and activities of New Zealand dentists. The New Zealand Dental Journal 91: 4-7.
16. Lung Z, Kelleher M, Porter R, Gonzalez J, Lung R (2005) Poor patient awareness of the relationship between smoking and periodontal diseases. Br Dent J 199: 731-737.
17. Wyne AH, Chohan A, Al-Moneef MM, Al-Saad AS (2006) Attitudes of general dentists about smoking cessation and prevention in child and adolescent patients in Riyadh, Saudi Arabia. J Contemp Dent Pract 7: 35-43.
18. Dolan TA, Mcgorray SP, Grinstead-Skigen CL, Mecklenburg R (1997) Tobacco control activities in US dental practices. J Am Dent Assoc 128: 1669-1679.
19. First AC (2001) Addressing oral disease—the case for tobacco cessation services. J Can Dent Assoc 67: 141-144.
20. Schroeder KL, Heisel DE (1993) Role of dentists in cessation counseling: survey findings. Smoking and Tobacco Control Monograph 2: 297-303.
21. Al-Mobeeriek A, Al-Qhatani D, Al-Otibi O, Al-Qhatni M (2013) Dentists' attitudes and practice towards smoking cessation and intervention in Riyadh, Saudi Arabia 1: 1-7.
22. Whitman S, Lacey L, Ansell D, Chen Eh, Dell J, et al. (1993) Do chart reviews and interviews provide the same information about breast and cervical cancer screening? Int J Epidemiol 22: 393-397.