Dentists' Attitudes and Practice Towards Smoking Cessation and Intervention in Riyadh, Saudi Arabia

Azizah Al-Mobeeriek*, Dalal Al-Qhatani, Ohoud Al-Otibi and Maha Al-Qhatni

Department of Oral Medicine and Diagnostic Sciences, College of Dentistry, King Saud University, Riyadh, Saudi Arabia

Abstract: The aim of this study was to identify dentists' attitudes, barriers and promotions practice regarding smoking cessation. Questionnaires were distributed to dental professionals in Riyadh, in Saudi Arabia. Respondents were 47.9% males and 49.8% were females. Most of them were in the age-group of 20-30 years. Almost half of them (53.1%) were general practitioners and 44.1% were specialists. The majority believes (80.6%) that the dentist's play a role in smoking cessation. Advising the patients to quit smoking was practiced by 53.7%. While explaining the health hazards were performed by 54.6%. Those who believed in their role they were more advise patients. Busy practice, lack of materials and referral resources were among the important barriers. Conclusion: there is a lack of practice and knowledge in all the components of smoking cessation. The 5As for smoking cessation should be reinforced to students and dentists in their curriculum and CME.

Keywords: Smoking, Cessation, Dentist, Saudi.

INTRODUCTION

One of the common, yet preventable, causes of considerable morbidity and mortality is tobacco [1-3]. Tobacco has been reported to cause nearly 5 million deaths a year, or one death every 6.5 seconds [4]. Fifty percent of the current 1.3 billion smokers will eventually be killed by tobacco [4].

In the mouth, tobacco use has been recognized to predispose to many diseases such as oral and pharyngeal cancers, leukoplakia, periodontitis, delayed healing and increased cancer deaths [5-9].

Cigarettes' smokers do not perceive themselves at special risk [10]. This partly due to smoking prevalence, lack of health education, misleading advertisements and promotions [11]. About one third of smokers do not know that smoking is the most important etiological factor of oral cancers and 50% of smokers would quit if their dentist advised them [12,13]. Tobacco prevention and health education is, thus, crucial. Dentists may play a major role in tobacco cessation as they commonly see their patients on regular follow-ups. Furthermore dental education is principally on one-to-one approach. A very brief advice lasting less than three minutes given by a health professional will help about 2% of smokers to successfully stop smoking [14]. However, only 66% of the dentists will advise the patients and 29% will provide Nicotine Replacement Therapy (NRT) prescriptions. Evidences indicate that only few dentists practice smoking cessation intervention as a routine part of their dental care [15-17]. Most of the dentists do not follow tobacco cessation strategy yielding ineffective advices [18-19]. Barriers to practicing tobacco cessation are smoking habits of the dentists, schools' willingness to provide patient counselling on tobacco and lack of training, time and materials [20-26].

Smoking prevalence in Saudi Arabia is relatively high particularly among adult males [27-29]. Several studies advocated urgent intervention to prevent smoking consequences among the Saudi population [30-34]. 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. In Saudi Arabia, the practice and attitude of dentists towards anti-smoking clinical implementation is not yet 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 factors that aid or inhibit dentists' to deliver smoking cessation advice.

SUBJECTS AND METHOD

A self-administered questionnaire written in English was prepared for this study was hand distributed to all male and female dentists.

Study Population

The sample was of this study were males and females dentists obtained from the main hospitals in the Riyadh area, Kingdom of Saudi Arabia, A convenient sample was obtained from each hospital.

*Address correspondence to this author at the Department of Oral Medicine & Diagnostic Sciences, College of Dentistry, King Saud University, Riyadh, Kingdome of Saudi Arabia; Tel/Fax: +966(1) 4784524 (ext.307);
E-mail: azizafm2001@yahoo.com

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All participants were interviewed; the aim and any uncertainty were explained and questionnaires were distributed.

Survey Instrument

A self-administered questionnaire was designed in English based on the reviewed literature. It was then peer-reviewed, piloted and was found comprehensible. The questionnaire was undisclosed and confidential with an attached brief introduction explaining the aim of the investigation.

The questionnaire was composed of two pages including the cover page which contains explanation of the purpose of the study and researchers names. The questionnaire was in three sections: the demographic and practice profile, current smoking habits and barriers.

- The first section obtained demographic information:
  - The dentist (age, sex, smoking status, years since graduation)
  - The practice profile information including the type of practice; the size of the practice (number of patients), years in profession, weekly working hours, professional rank.
- The second section explored dentists' current practice regarding smoking.
- Third section of the questionnaire explored a number of possible barriers to practice smoking cessation in dental clinic.

The second and the third sections were presented in a series of statements and indicated response on a three point scale of (yes, no, I don't know). The questionnaire was distributed to the subjects at their working places during a three months period.

Statistical Analysis

The collected data were entered into Statistical Package for Social Sciences (SPSS), version 11.0 and were analyzed for frequency distributions and x^2.

RESULTS

Two hundred eleven (211) dentists participated in the study (47.9 % male, 49.8 % female). The response rate was 70.3% (211/300). There were 112 (53.1 %) general practitioners and 93(44.1%) were specialists. Most of the respondents (42.7 %) were in the age range of 20-30 years and the least were (8.1 %) were ≥46 years (Table **1**). Sixty dentists (28.4 %) have less than one year in their professional and 43 dentists (20.4 %) have about 6-10 years. Only 8 dentists (3.8 %) have more than 25 years.

Most of the respondents (61.6 %) described their practice as governmental (non-academic), while (36 %) were academic. Regarding their weekly working hours: 29.4 % and 27% spent about 36-40, (41-45) hours per week respectively. while about (10.9 %) indicated their working hours to be less than 25 hours. Most dentists 134 (63.5%) stated that they see less than 10 patients per day, while 2.8 % see more than 30 patients per day. Most of the participants (67.3%) treat both genders, while 45 dentists (25.6%) see female patients and 10 dentists (4.7%) restricted their practice to male patients. The results are summarized in Tables **1** & **2**.

Most of the respondents (73.4%) were non-smoker, 14.2% current smoker, 8.5% social smoker and 1.4% ex-smoker (Table **2**).

As regard to the role of the dentist in smoking cessation. Most of the participants (80.6%) agreed that

Table 1: Sample Age by Sex Distribution

Age-Group	Male		Female		Total	
	No.	%	No.	%	No.	%
23-30	37	17.5	53	25.1	90	42.7
31-35	18	8.5	19	9	37	17.5
36-40	22	10.4	17	8.1	39	18.5
41-45	11	5.2	12	5.7	23	10.9
≥46	13	6.2	4	1.9	17	8.1
Total	101	47.9	105	49.8	211*	100

*Five missing cases.

Table 2: Demographic Characteristics of the Sample*

Variable	Number	Percentage
Gender*		
Male	101	47.9
Female	105	49.8
Age*		
20-30 years	90	42.7
31-35 years	37	17.5
36-40 years	39	18.5
41-45 years	23	10.9
≥46 years	17	8.1
years in profession		
< 1 years	64	30.3
1-5 years	34	16.1
6-10 years	43	20.4
11-15 years	31	14.7
16-20 years	19	9.0
21-25 years	12	5.7
>25 years	8	3.8
Patients/day*		
< 10 patients.	134	63.5
10-20 patients.	55	26.1
21-30 patients.	11	5.2
31-40 patients	3	1.4
>patients.	3	1.4
Professional Rank*		
Specialist	93	44.1
General Practitioner	112	53.1
Working Hours*		
<15 hrs.	4	1.9
15-20 hrs.	7	3.3
21-25 hrs.	6	2.8
26-30 hrs.	18	8.5
31-35 hrs.	17	8.1
36-40 hrs.	61	28.9
41-45 hrs.	57	27.0
>45 yrs.	35	16.6
Smoking Habits*		
Smoker	24	11.4
Non-smoker	155	73.5
Occasional Smoker	18	8.5
Ex-Smoker	3	1.4

*Five missing cases.

the dentist has a role in smoking cessation, 9% disagreed and 7.6% were not certain (Figure **1**).

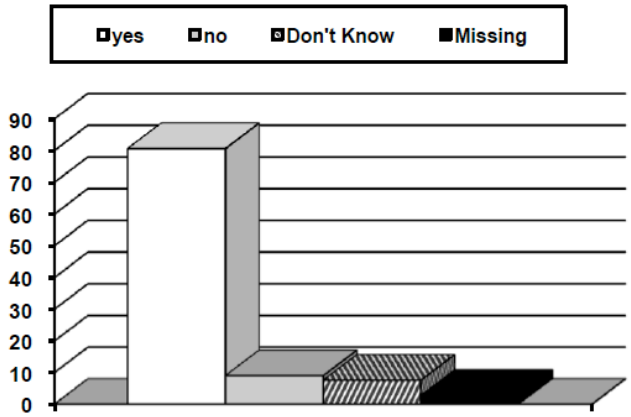

Figure 1: Response to dentist role in smoking prevention.

About two thirds (67.2%) of the sample reported asking new patients routinely or sometimes about their smoking habits. This was highly significant among specialists; those who will treat both genders at p= 0.001; newly graduates' and younger age group (p= 0.000).

Almost half of the respondents (53.7%) advise their patients to quit smoking. This was highly significant among those who believed in the role of dentists in smoking cessation at p=0.000. It was also significant among clinicians who see both genders in their practice (p=0.001). Dentists with busy practice were less to advise their patients at p<0.05.

Around half of the Practitioner (54.6%) will explain the impact of smoking on health. Religion regulations and roles were employed by 18.1% of dentists to stop smoking. Specialist were more to point the lack of educational materials at p=000. They were also more to provide pamphlets to the patients at p=0.001. They were also more apt to involve the dental team (p<0.05) in patient help.

In this study, minority of dentists reported employing specific strategies to aid in quitting smoking such as assisting patients who smoke to give up (22.9%), referring patients to a quit program or physician (7.3%), giving self-help education materials (7.8%), or prescribing nicotine replacement therapy (NRT) (9.8%).

Younger dentists (>30 years) and those who treated both genders were more to advise NRT than others at p<0.05.

For records and follow-ups, only 11.7% reported tracking the patients' progress on giving up smoking and 13.7% do keep records of patients' smoking status. This was significantly high among non- academic at p<0.05 as well as specialists at p=000.

Dentists identified a number of difficulties involved in helping patients quit smoking and barriers were perceived in all domains. This includes doubts about the effectiveness of quit advice, a lack of resources such as patient education materials and referral resources; anticipated negative patient reaction; uncertainty about the dentists' role and the time involved; and doubts about dentists' skills in assisting patients to quit smoking.

Young dentists thought that people have enough problems (p<0.05). Inadequate materials were a main

Table 3: Current Practice Regarding Smoking Cessation

Sometimes	No	Yes	Statements
37.6	31.2	31.2	I ask all new patients about their smoking habits?
27.8	18.2	53.7	I advise patients who smoke to give up?
30.7	14.7	54.6	I explain to smokers the impact of smoking on their general & dental health
18.1	74.6	7.3	I refer patients to appropriate services to help them stop smoking (cessation clinic or other health care professional)?
25.4	51.7	22.9	I assist patients who smoke to give up?
14.6	77.6	7.8	I provide smoking cessation pamphlets & posters in the waiting room so patients can help themselves?
19	71.2	9.8	I discuss the use of nicotine replacement therapy with patients who smoke?
27.8	54.1	18	I utilize religion rules and regulations for pt's advice to quit smoking?
13.7	76.5	9.8	I am involving the dental team in helping patients with smoking issues?
19.4	68.9	11.7	I am Following-up with the patients' progress in giving up smoking?
13.1	73.2	13.7	I do keep records of patients' smoking status?

Table 4: Perceived Barriers in Helping Patients to Quit Smoking

Can't say	No	Yes	Statement
24.4	61.5	14.1	I don't think advice from a dentist would be effective
18.5	59.1	22.4	It isn't the dentist's responsibility to convince people who smoke to stop
7.6	7.8	84.6	We don't have adequate patient education materials
7.3	9.3	83.4	We don't have adequate referral resources e.g.(smoking cessation programs)
26.4	38.5	35.1	I don't know how to help patients to quit
16.5	42	41.5	I don't have time to advise the patient to quit
20.5	58	21.5	I am concerned that patients will leave the practice
38	28.5	33.5	Patients do not want to discuss quitting
21.5	46.3	32.2	Most tobacco users can't stop, if they want to
28.8	51.7	19.5	People have enough problems without adding to them by trying to give up tobacco
24.9	30.7	44.4	It is hard to get staff together to make changes in office procedure

reason among academics at $p>0.005$. Non-academics employees were more concerned about patient leaving the practice after the advice ($p<0.05$). Dentists who have 36-40 hours/week working hours, did not know how to educate their patients at $p<0.05$. The results are summarized in Tables **3** & **4**.

DISCUSSION

The impact and consequences of smoking on oral and general health is well acknowledged in the literature [40, 41]. Several recent publications have highlighted the role and the need for the dental professional to get involved with tobacco intervention [14,35,42].

Our study has provided interesting information about the attitude and the current practice regarding smoking cessation practice among dentists in Saudi Arabia. The result of the survey has also offered some encouragement regarding views of dentists' current activities and the opportunities for future involvement in smoking control.

The majority of the dentists in the study think that they have an important role in smoking cessation and prevention. This finding is in consistent with other surveys of dentists in the USA, Canada, New Zealand, Finland and the UK which has consistently found that the majority of dentists believe it is important for them to counsel patients about their tobacco use [24-26, 43-46].

A study of Victorian dentists has found that the dentists were uncertain of their role in smoking cessation and they need encouragement to incorporate smoking cessation as part of their role [36]. Skegg *et al*. [43] also found that a large proportion of dentists in New Zealand, were seldom or never involved in smoking cessation activities and considered that it was not a part of dentistry.

However, this unclear attitude in the dental community and variable views to responsibilities may be attributable to the variability of awareness and the knowledge of the perceived duties of dental profession among different dental communities.

In this study, one third of the respondents reported that they do ask their patient routinely about smoking habits while the other third did it sometimes. Thus it can be stated that the majority of them reported asking at least some of the patients if they smoked and advised them to quit, which agrees with other studies [15,23].

About half of the surveyed dentists reported advising the smoker patients and explaining the impact of smoking on their health. While less percent, reported asking regularly their patient about the smoking habits. This might give an insight into the importance of the history, examination and assessment of the smoking status of the patient.

Minority of the surveyed dentists showed a high level of patient-based activities regarding smoking cessation. Such as assisting patients who smoke to give up, referring patients to smoking cessation programs, giving self -help education material, keeping records, follow-ups or discussing NRT. This indicates that the participants do not know the extent of their responsibility and role in tobacco cessation. This is

attributed to the inadequate knowledge and training. This could be explained by the lack of certainty about patient quitting smoking [47].

This study provided some insight about the difficulties involved in helping patients to quit smoking and the barriers that might face the dentists in smoking cessation, which need to be addressed to encourage dentists to discuss smoking with patients more frequently.

In this study, the lack of educational materials and referral resources were the most highly perceived barriers among the sample, which is in agreement with several studies [12, 23], which may be explained by unavailability of proper communication between dental office and smoking cessation programs that may provide the dentists with information and materials that help them to assist their patient to quit smoking. Also busy practice in term of increased number of patients was also one of the factors associated with lack of knowledge and awareness among clinicians toward smoking cessation.

When interpreting the results of this study it must be remembered that it is based on self-reported behavior, which has been shown to overestimate the level of activity [48]. Since It is possible that dentists who agreed to participate were more interested and proactivated in smoking cessation intervention and are interested in further education in the area than dentists who did not participate.

This is the first study in Saudi Arabia recognizing the attitudes and practice regarding smoking cessation, intervention and prevention in adults. Further studies are indicated involving larger group number and covering larger demographic area.

CONCLUSION

In the present study, the majority of dentists believed that they have role in smoking cessation and prevention. Yet, our data displayed lack in all the components of smoking cessation (Ask, Advise, Assess, Assist, and Arrange behaviors).

There is a clear need to provide dentists with information on the resources available to them. Alleviating work pressure may permit the practitioner a better access to knowledge.

When considering the increase in the number of smokers in Saudi, reinforcement of the 5 A's is mandatory. This might be established through curriculums and continuous education.

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