

## ORIGINAL ARTICLE

**An Assessment of Dentists' Oral Health**

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**ABSTRACT**

**Objective:** The aim of the study was to access the oral health maintenance behavior patterns among dentists.

**Study Design:** Questionnaire based cross sectional study.

**Place and Duration of Study:** The study was conducted in the community dentistry department of Islamic International Dental College, Islamabad from March 2013 to August 2013.

**Materials and Methods:** A total of 65 dentists from Islamabad were included in this study. The dentists were sampled conveniently from Islamabad. Descriptive data was described for the reported frequencies of dentists' attitudes and practices related to oral health.

**Results:** Out of 65, 61 dentists had shown positive attitude in responding close-ended questionnaires. Most of the dentists reported brushing their teeth twice a day (n= 40, 65.5%). A total of 34 (55.7%) dentists reported carrying out brushing for about 2-4 minutes. The self-reported Decayed Missing Filled Teeth (DMFT) score for 21 (34%) dentists was zero. The majority of dentists (n=48, 78.7%) did not consider themselves to be having any dental problems, while 42 (68.9%) dentists perceived their oral health as being very good.

**Conclusion:** Although most of the dentists reported as having good oral health, a large number of the participants did not maintain their oral health adequately. Dentists follow ROSC (Recommended oral self-care) recommendations to improve their oral health status.

**Keywords:** Oral Health, Oral Health Professionals, Oral Health Practices.

**Introduction**

Oral health is a primary component of overall health and well-being of a person.<sup>1</sup> Oral health can be defined as "A standard of health of oral and related tissues which enable an individual to eat, speak and socialize without active disease, discomfort or embarrassment and which contribute to general well-being".<sup>2</sup> Good oral health depends on the knowledge and practice of recommended oral self-care (ROSC). ROSC includes "tooth brushing more than once a day, lesser consumption of sugar containing snacks once daily or rarely and regular use of fluoride containing toothpastes".<sup>3</sup> The dentists have an important role in delivering good oral health care to a community. The dentists are also a role model not only for their families but for the community as well, owing to their role as health care professionals being involved in oral health promotion.<sup>4</sup> By virtue of their profession, dentists' knowledge and practice of oral health care is

expected to be better than the general population. To the extent of our knowledge every few studies were reported to assess the oral health of dentists.<sup>3,5,6</sup>

Mostly studies do not compare the oral health behavior and attitude of dentists' with other health professionals<sup>4</sup> or general population. Therefore, this study was conducted to assess the oral health status and behavior of dentists.

**Materials and Methods**

This was a questionnaire based, cross-sectional study. The study was designed to access dentists' attitudes and practice of maintaining their oral health.

This study was conducted at two hospitals based in the twin cities of Rawalpindi and Islamabad. The participating hospitals were Holy Family Hospital (HFH), Rawalpindi and Islamic International Dental Hospital (IIDH), Islamabad. The Questionnaire was given to 65 dentists including general dental practitioners (GDPs); post-graduate trainees, demonstrators and house officers. Four dentists declined to participate in the study. Thus, a total sample of 61 dentists was achieved. Out of these 61 dentists, all participants completed and returned their questionnaires. The data collection was carried out within the morning working hours of the hospital. The questionnaire was divided into two

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sections. The first section included questions related to the dentists' oral hygiene maintenance. Questions from the following topics were included in this section: brushing frequency, brushing time, brushing aids, oral products used for halitosis, self-reported DMFT score, self-reported dental history, the general food products consumed, the use (if any) of addictive substances, and the participants' perception about their oral health. The second section inquired about the participants' demographic details. Questions about the age, gender, experience, job type and participants' city were included.

The data processing and analysis was done by using the Statistical Package for the Social Sciences, SPSS version 17.0. The trends in the participants' practice of oral health care was presented in the form of frequencies and percentages.

**Results**

Questionnaire was completed by a total of 61 dentists. The frequencies of the oral health care trends were calculated separately for GDPs, post-graduate trainees, demonstrators and house officers. Out of 61 dentists, 49(80.3%) were female dentists and 12 (19.0%) were male dentists filled our questionnaire. Forty three (70.5%) participants were from Islamabad, while 15 (24.6%) of them were from other cities. Table I illustrates the age distribution of the participating dentists. Out of 61 dentists, 40(65.6%) of dentists brushed twice a day, 15(24.6%) once a day, five (8.2%) more than twice a day and one (1.6%) after meal. The oral hygiene aids and the frequency of their use have been illustrated in given table I. A total of 8(13.1%) dentists reported using mouth fresheners in order to remove halitosis while 14(23.0%) used mouthwash, five (8.2%) used tongue cleaners, while 33(54.1%) did not report to have any halitosis. Further-more, 48(78.7%) dentists did not have dental problems. However 12(19.7%) did have dental problems. A total of 54 dentists reported to have dental treatment history; 27(44.3%) participants received dental treatment for preventive reasons, while 27(44.3%) of them had curative dental treatment.

The self-reported DMFT scores for the dentists were reported as illustrated below was reported as well. This data has been illustrated in table II. The majority of the dentists reported using tetra pack juices (n=42, 68.9%). Only a small number (n=17, 27.9%) reported

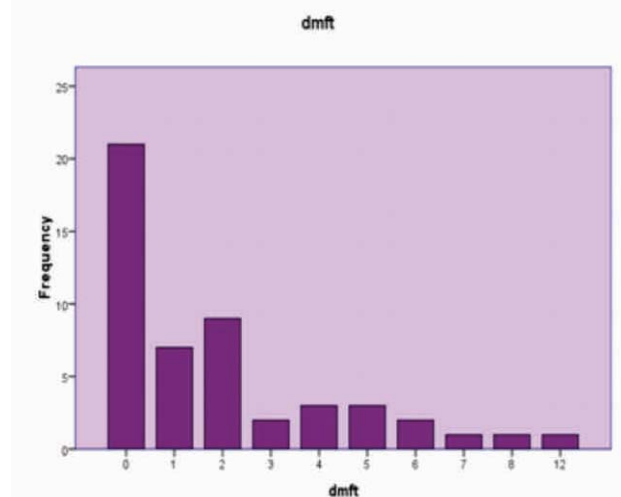
**Table I: Frequency Distributions and for Age, Oral Hygiene Aids used and Addiction towards Carbonated Drinks**

Ages	Frequency (%)	Other Aids	Frequency (%)	Type of Addiction	Frequency (%)
22-25	38(62.3%)	Toothpick	4(6.6%)	Tea	13(23.3%)
26-29	14(23%)	Floss	15(24.6%)	Carbonated Drinks	2(3.3%)
30-33	4(6.6%)	Mouthwash	13(21.3%)	Smoking	1(1.6%)
34-37	2(3.3%)	Miswak	2(3.3%)	Others	1(1.6%)
35	1(1.6%)				

the consumption of fresh fruit juices. Two (3.3%) participants did not answer this question. The dentists were asked about the frequency of consumption of junk food. Also, control of their desire to consume junk food and sweets

**Table II: Response to questions on oral hygiene maintenance (n = 60)**

Content of question	Rarely (%)	Frequently (%)	Often (%)	Never (%)
Junk food as part of daily meal	8 (13.1)	9 (14.8)	33 (54.1)	10 (16.4)
Restricted eating desires for maintenance of oral health	14(23)	8(13.1)	15 (24.6)	24 (39.3)



**Fig 1: Bar chart showing DMFT scores of dentists**

Out of 61, 16 (26.2%) of dentists had addiction to carbonated soft drinks, 1 (1.6%) to smoking while 44(72.1%) have no addiction and 1(1.6%) did not show any response. The majority of the dentists reported using tetra pack juices (n=42, 68.9%). Only a small number (n=17, 27.9%) reported the consumption of fresh fruit juices. Two (3.3%) participants did not answer this question. Out of 61

dentists, 26 (42.6%) dentists reported examining their oral cavity daily while standing in front of a mirror, 15(24.6%) practiced this once a week, five(8.2%) fortnightly, nine(14.8%) once a month,4(6.6%) never examined and two(3.3%) did not answer this question. Nine (14.8%) dentists were highly conscious regarding their oral health, 45(73.8%) moderately conscious, seven (11.5%) not much conscious. Nine (14.8%) dentists perceived their oral health as being very good, 42(68.9%) as being good, nine (14.8%) as being fair while one (1.6%) participant did not answer this question.

### Discussion

This questionnaire was set out to assess the self-reported practice of oral health maintenance among a sample of dentists. Oral self-care practices lead to preventive measures for the maintenance of good oral health. The dentists' oral health prevention practice was assessed by asking them about their daily routine activities related to their oral health maintenance. The present study reported that the majority of dentists practiced brushing their teeth twice daily (n=40, 65.6%) this was in agreement with several earlier studies reporting similar results: Gopinath (55.9%)<sup>3</sup>, Ghasemi (73%)<sup>6</sup>, Tseveenjav (81%)<sup>5</sup>. However Baseer et al. conducted a survey in Riyadh, Saudi Arabia which reported only about (4%) of the sampled dentists brushing twice.<sup>7</sup> More than half of the dentists brushed their teeth for 2-4 minutes (n=34, 55.7%). These results are similar to that of a Nigerian study, which reported that about half (52.1%) of the dental students included in the study reported to brush their teeth regularly for 3-5 minutes.<sup>8</sup> These results are alarming from the point of view that dentists, who are considered responsible for delivering oral health awareness among the general population are not practicing proper oral health maintenance guidelines. The frequency and duration of tooth brushing correlates with oral hygiene and oral health which is also supported by the present study. Brushing twice daily for a proper duration plays a vital role in maintaining oral health as recommended by most dentists.<sup>8</sup> Most of the dentists did not use any other oral hygiene aids along with tooth brushing 17 (27.9%). Floss usage in the present study was more than that reported by an Indian study by Gopinath et al. However, an Iranian study reported a greater frequency of flossing by

dentists.<sup>6</sup> For effective preventive care, oral problems like caries, halitosis or plaque must be prevented by using other aids along with tooth brushing. A large population of dentists always used fluoridated tooth pastes for brushing 36(59%) and less percentage of those who used any particular branded tooth pastes 13(21.3%). In the study of Gopinath, (55%) dentists used fluoridated toothpastes daily.<sup>3</sup> 62% of Mongolian dentists were using fluoridated toothpastes always or almost always.<sup>5</sup> Around (74%) Iranian dentists used fluoridated tooth pastes regularly.<sup>6</sup> A high percentage of the dentists occasionally 28 (45.9%) or always 22 (36.1%) rinse their mouth after eating anything whereas a few 8(13.1%) of them rarely do so. Halitosis not only affects an individual's life but it can also result in the embarrassment of the relatives and friends of affected individual.<sup>9</sup> In our study half of the dentists did not have halitosis 33 (54.1%). The ones who had this problem prevented it by using mouth fresheners 8 (13.1%) and few used tongue cleaner 5 (8.2%) as well. In a study of Nigeria it was seen that in order to prevent halitosis, tongue cleaning is carried out by majority using toothbrush and only (9.5%) used tongue cleaners.<sup>9</sup> A high percentage 48 (78.7%) of dentists had visited other dentists for their dental problems and only 12 (19.7%) had never visited any dentist. There was equal percentage of dentists who visited for their dental examination either for curative or preventive purpose. Thirty four (55.7%) of dentists had their last dental examination within last year whereas 24 (39.3%) had their last dental examination more than a year ago. In comparison to the present study (40%) South Indian dentists<sup>4</sup>, (41%) Irani dentists 6, (75%) Mongolian dentists visited dental clinic at least once a year.<sup>5</sup> DMFT score for the evaluation of oral health status of dentists was calculated. It was found that majority of dentist 21 (34.4%) had 0 score, 7 (11.5%) had score 1, 9(14.8%) had score 2. Very few among the remaining had higher scores. As dentists had more knowledge of their profession and awareness of importance of oral hygiene than laymen, so they have a less DMFT score indicating that they had a better oral health. Moreover, our study included the dental professionals belonging to good socio-economic status so this can also be related to their good oral health status. Majority of the dentists claimed of

having no addiction 44 (72.1%) whereas 16 (26.2%) had addiction to something. Most of them had addiction to tea/coffee. These results are in accordance with Almas study in which tea drinking was common among (81%) participants.<sup>10</sup> A high intake of caffeinated drink may be associated to a busy, stressful work schedule. More than half of the dentists sometimes 33(54.1%) take junk food in their daily meals whereas there was less number of those who did not eat junk food 10(16.4%). Twenty six (42.6%) of the dentists consume carbonated drinks weekly and 22(36.1%) of them rarely take carbonated drink. Better oral health is related with positive behavior and adherence to good oral hygiene practices.<sup>11</sup> This supports our results as dentists are concerned to maintain their oral health. We have also seen that many dentists never restricted their eating desires for the sake of their oral health but some often and even rarely do so. More than half of dentists used tetra-pack juices 42 (68.9%) whereas only some of them use freshly extracted juices 17 (27.9%). The unhealthy and busy life style could be considered a reason of the negative response shown in the above questions. There were 26(42.6%) of the dentists which daily examined their oral cavity while standing in front of the mirror and those examining weekly were 15(24.6%) and monthly were 9 (14.8%). As majority of our participants were females so we obtained a higher score on the self-examination question, as females are always more concerned about their appearance and social image. A high percentage of dentists 45 (73.8%) rank themselves moderately conscious about their oral health whereas only 9 (14.8%) are highly conscious and only few are not much conscious. Forty two (68.9%) of dentists perceive their oral health as good whereas less 9(14.8%) percentage is of those who perceive it either very good or fair.

### Limitations

- Due to lack of resources, the research was restricted to two hospitals only.
- The participants included house officers and belonging to the same age bracket.

- The results were based on data that was self-reported by the dentists. Therefore their oral health status may be biased through over and under reporting in order to maintain their better social image.

### Conclusion

Oral health of most of the dentists was considerably good. Oral health attitudes and practices among dentists were influenced by factors like gender as most of the dentists were female.

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