



Reasons Preventing or Delaying Dental Visits in Taibah University Students

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Authors' contributions

This work was carried out in collaboration between both authors. Author NSA designed the study, wrote the protocol, collected and analyzed the data and wrote the first draft of the manuscript. Author DHZ managed the literature searches, supervised the study throughout all its stages, reviewed the analyses of the results and written manuscript, wrote the discussion and prepared the manuscript for submission. Both authors read and approved the final manuscript.

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ABSTRACT

In order to maintain good oral health and prevent dental problems, regular dental visits are highly recommended. Previous studies have reported reasons preventing or delaying dental visits such as fear of dentist, cost and lack of time. The aims of the study were to assess and identify the obstacles that prevent or delay dental visits among the students of Taibah University in Al-Madinah Al-Munawarah, Saudi Arabia. It is an analytical cross sectional study where an online questionnaire was distributed to the students of Taibah University. A total of completed 416 questionnaires were used in analysis. The frequency of dental visit was less than 1 every two years with no significant gender difference. Lack of time and cost were reported to be the most common causes that prevented visiting the dental clinic in males and females. While males reported no importance to visit the dentist if there is no pain as the second most common reason. The less commonly reported reasons were the lack of transportation to visit the dentist and I am medically compromised/disable. Lack of transportation was recorded only by females as a barrier preventing dental visit.

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1. INTRODUCTION

Dental problems such as dental caries, periodontal disease, tooth loss and oral cancer are major public health problems in high-income countries, and the burden of oral diseases is growing in many low- and middle-income countries [1]. These diseases are generally not self-limiting, and untreated problems often affect a person's wellbeing and general quality of life negatively [2].

Regular dental visits are highly recommended to maintain a good oral health and prevent such problems. Also, equally important are the personal oral hygiene routines such as tooth brushing and dental flossing [3]. The American Dental Association (ADA) and other organizations recommended that adults should get preventive dental visits at least once every six months [4]. These visits provide professional diagnostic and prophylactic services as the early detection and treatment of dental caries and oral diseases [5].

The provision of preventive dental care for adults depends greatly on the patient's initiatives in utilizing dental care. Unfortunately however, the need for a regular dental visit is not appreciated in many parts of the world and many people fail to comply with this due to several barriers [6,7,8].

The FDI has classified the barriers for seeking dental services as being related to: 1) The individuals themselves: such as the lack of perceived need, anxiety or fear, financial considerations, and lack of access. 2) Dental profession: inappropriate manpower resources, uneven geographical distribution, training inappropriate to changing needs and demands, and insufficient sensitivity to patient's attitudes and needs. 3) Society: insufficient public support of attitudes conducive to health, inadequate oral health care facilities, inadequate oral health manpower planning, and insufficient support for research [9].

It is of interest that the percentage of individuals who have been reported having visited the dentist regularly varied between studies in different countries [10]. For example, in Singapore, only a small portion of the population visits the dentist each year. Similar observation was found among Americans where only half of the population visits the dentist yearly [11].

As for gender, literature from several countries reported differences in oral health behavior between males and females. In some studies, females visited dentists and used oral hygiene tools more frequently than males [12]. On the other hand, other studies did not find such a gender difference [9].

Several studies have dealt with the reasons for avoiding dental visits. In California USA, these reasons were reported to be no perceived reason to go to the dentist (37.2%), cost (30-7%), and fear (9.2%) [13]. In Australia, the main reasons for dental avoidance were cost, lack of time and not getting around to dental clinics [14]. In Kuwait, dental fear and the belief that visiting a dentist is necessary only for pain relief were the strongest factors for dental avoidance [5]. In Saudi Arabia, limited studies are available concerning the causes of dental avoidance. In general, fear and pain were recorded as factors for avoiding visiting the dentist in Saudi Arabia [15].

The aims of the current study are to assess and identify the obstacles that prevent or delay dental visits among the students of Taibah University in Al-Madinah Al-Munawarah, Saudi Arabia.

2. MATERIALS AND METHODS

This analytical cross-sectional study was conducted in March and April 2015. A self-administered, anonymous, closed structured online questionnaire was prepared in Arabic and English language and was distributed to the students between (19 - 23) years of age at Taibah University. The sample of 416 completed questionnaires was fulfilled after one week. Ethical clearance for the study was obtained from ethical committee at College of Dentistry, Taibah University.

The questionnaire used addressed the following aspects: 1) sociodemographic variables (sex, monthly income and marital status); 2) the frequency of dental visits and when was the last visit to dental clinic; 3) the causes of avoiding or delaying visiting the dentist (including lack of time/too busy, Cost/too expensive, Do not like dentists, Fear or anxiety, I can't find a good dentist, I am medically compromised/disabled, The lack of transportation to visit the dentist, The long waiting when you visit the dental clinic, No

importance to visit the dentist if there is no pain and A bad experience with a dentist and finally 4) Getz Dental belief survey was the last section of the questionnaire about various situations, feelings, and reactions related to dental work that was rated by the participants between (never, little, somewhat, often & nearly always).

Data were processed and analyzed using the Statistical Package for Social Sciences (SPSS) version 22.0. Descriptive statistics were done as frequencies, percentage and Pearson Chi-square test to know the difference between variables. The level of significance used was $p < 0.05$.

3. RESULTS

Total of completed 416 questionnaires were used in analysis of the results. Sociodemographic characteristics of subjects are presented in Table 1. The subjects were divided between male (16.6%) and female (83.4%) and the majority were single (male= 92.8% & female= 82.1%). Regarding the monthly income, most of the participants reported less than 5000 (male = 81.2%, female = 69.2%) (Table 1).

Self- reported questions about the frequency of the dental visit and the last visit to the dental

clinic are presented in Table 2. The frequency of dental visit was mostly less than 1 every two years with no significant gender difference. On the other hand there was a significant difference regarding to the last visit to the dental clinic between male & female. Most of the subjects of the study had a dental visit in the last 6 months (48.6%) (Table 2).

There was no significant gender difference in most of the reasons to avoid visiting the dentist. Lack of time (47.4%) and cost (39.9) were the most commonly reported reasons by males & females. The third and fourth most common reasons were believing that no importance to visit the dentist if there is no pain (27.4 %), which was more common in males ($p \leq 0.001$) and the long waiting when you visit the dental clinic (27.2%). I can't find a good dentist was reported by (19.2%) of the participants, while fear (18.3%) was more common in females than males. There was a highly significant difference between male and female in the lack of transportation as a cause preventing dental visit and it was more commonly reported by female (20.2%). Other less commonly reported reasons were do not like dentist (17.1%), a bad experience with a dentist (8.2%) and I am medically compromised (0.7%) (Table 3).

Table 1. Sociodemographic variables of study subjects according to gender

Variables	Male (N=69)		Female (N=347)		Total (N=416)	
	N	%	N	%	N	%
Gender	69		347		416	
Marital status						
Single	64	92.8%	285	82.1%	349	83.9%
Married	5	7.2%	62	17.9%	67	16.1%
Monthly income						
less than 5000	56	81.2%	240	69.2%	296	71.2%
5000-10000	8	11.6%	52	15%	60	14.4%
10000- 20000	3	4.3%	41	11.8%	44	10.6%
more than 20000	2	2.9%	14	4%	16	3.8%

Table 2. The frequency of dental visit & the last visit to dental clinic according to gender

Variables	Male (N=69)		Female (N=347)		P-value	Total (N=416)	
	N	%	N	%		N	%
The frequency of dental visit							
Less than 1 every 2 years	41	59.4%	137	39.5%		178	42.8%
1 per year	13	18.8%	67	19.3%	.007	80	19.2%
1 every 2 years	7	10.1%	45	13%		52	12.5%
More than 2 per year	8	11.6%	98	28.2%		106	25.5%
The last visit to the dental clinic							
Before 1 year	18	26.1%	67	19.3%		85	20.4%
Before 2-3 years	15	21.7%	50	14.4%	.002	65	15.6%
In the last 6 month	19	27.5%	183	52.7%		202	48.6%
More than 5 years	17	24.6%	47	13.5%		64	15.4%

Table 3. Reasons for avoid visiting the dentist according to gender

Variables	Male (N=69)		Female (N=347)		P-value	Total (N=416)	
	N	%	N	%		N	%
lack of time/too busy	33	47.8%	164	47.3%	0.932	197	47.4%
Cost/too expensive	28	40.6%	138	39.8%	0.900	166	39.9%
Do not like dentists	9	13%	62	17.9%	0.331	71	17.1%
Fear or anxiety	8	1.6%	68	19.6%	0.116	76	18.3%
I can't find a good dentist	17	24.6%	63	18.2%	0.212	80	19.2%
A bad experience with a dentist	7	10.1%	27	7.8%	0.513	34	8.2%
The long waiting when you visit the dental clinic	18	26.1%	95	27.4%	0.826	113	27.2%
The lack of transportation to visit the dentist	0	0%	70	20.2%	0.000	70	16.8%
No importance to visit the dentist if there is no pain	30	43.5%	84	24.2%	0.001	114	27.4%
I am medically compromised / disabled	0	0%	3	0.9%	0.438	3	0.7%

Finally in Dental Beliefs Survey that show various situations, feelings, and reactions related to dental work rated by the student between never, little, somewhat, often and nearly, there were no significant gender differences as shown in Table 4.

4. DISCUSSION

The present study was carried out to describe the reasons preventing or delaying dental treatment among the students in Taibah University, Al-Madinah Al-Munawarah. According to our concern the participants were asked about the frequency and last visit to the dental clinic. In addition, the reasons to avoid or delay visiting the dentist and the Dental Beliefs Survey were also reported to show various situations, feelings, and reactions related to dental work.

Although the participants were considered highly educated yet only about 42.8% of them reported the frequency of dental visit to be mostly less than one every two years. This proportion is nearly half of that reported in Sweden, where (90%–95%) of all individuals visited the dentist on a regular basis every year or every other year [16]. Also in a study carried out in Michigan, the authors found a much higher percentage of regular visits, where 75% of subjects reported having a dental check-up at least once a year [17]. On the other hand, in Uganda only (21%–37%) of the population has ever visited a dentist [18]. It is noteworthy to mention that the females in our study reported more frequent dental visits than do the males which was coincident with

several studies [19,20,21]. However, no such difference between males and females regarding the frequency of the dental visits were concluded by other different studies [22,23].

Regarding the question about the last visit to the dentist, the highest percentage of the participants reported it to be in the last 6 months (48.6%). Consistent with our findings, 22% of high education students in Kuwait had visited the dentist at least once in six months [20]. In Saudi Arabia and USA, the percentage of individuals who had visited the dentist in the last year was around 60% and 70% respectively [21,23].

In our study, lack of time was reported to be the most common cause that prevented visiting to the dental clinic (47.4%). The same reason was chosen by 17.1% in participants aged between 11-24 years old in a study performed in Saudi Arabia [21] and by 40.4% in Kuwait [24]. While in Jeddah city "No need for dental visits" came as the highest percentage (28.7%) among the reasons preventing dental visit [25]. In USA, only (0.7%) of the population avoid the dental visit because of lack of time (too busy to visit the dentist) [26].

Among the male participants, the second most common reason preventing dental visit was "No importance to visit the dentist if there is no pain" (43.5%). Almas et al. [27] in Saudi Arabia reported that 67% of males and 59% of females visited dentists only when there is pain. In India the same reason (There is no need unless pain was present) was considered as the most common barrier among the middle age to visit

Table 4. Dental beliefs survey

Variables	Gender	Never		little		Somewhat		Often		Nearly always		P - value
		No.	%	No.	%	No.	%	No.	%	No.	%	
I feel dentists put me down (make light of my fears)	Male	38	55.1	20	29	9	13	1	1.4	1	1.4	0.816
	Female	181	52.2	96	27.7	60	17.3	8	2.3	2	.6	
I am not sure I can believe what dentists saw about work that is needed	Male	28	40.6	19	27.5	18	26.1	3	4.3	1	1.4	0.728
	Female	142	40.9	119	34.3	71	20.5	10	2.9	5	1.4	
I feel uncomfortable asking questions	Male	28	40.6	20	29	14	20.3	5	7.2	2	2.9	0.436
	Female	159	45.8	93	26.8	55	15.9	37	10.7	3	.9	
I feel dentists do not really listen to what I say	Male	24	34.8	25	36.2	12	17.4	6	8.7	2	2.9	0.421
	Female	162	46.7	93	26.8	59	17	25	7.2	8	2.3	
Dentists are efficient but it often seems they're in a hurry, so I feel rushed	Male	17	24.6	22	31.9	18	26.1	7	10.1	5	7.2	0.830
	Female	82	23.6	132	38	71	20.5	37	10.7	25	7.2	
The thought of "hearing all the bad news," or completing all the work needed could be enough to keep me from going for finishing treatment	Male	33	47.8	13	18.8	11	15.9	6	8.7	6	8.7	0.348
	Female	169	48.7	96	27.7	42	12.1	24	6.9	16	4.6	
I worry if dentists are technically competent and do a good quality job	Male	14	20.3	21	30.4	17	24.6	9	13	8	11.6	0.466
	Female	62	17.9	115	33.1	58	16.7	66	19	46	13.3	
I feel dentists do not take my worries (fears) seriously	Male	25	36.2	27	39.1	14	20.3	1	1.4	2	2.9	0.182
	Female	105	30.3	130	37.5	63	18.2	37	10.7	12	3.5	
Dental professionals say things to make me feel guilty about the way I care for my teeth	Male	18	26.1	25	36.2	15	21.7	5	7.2	6	8.7	0.384
	Female	99	28.5	116	33.4	68	19.6	48	13.8	16	4.6	
I think dentists saw things in a way to try and fool me	Male	34	49.3	21	30.4	10	14.5	3	4.3	1	1.4	0.763
	Female	200	57.6	88	25.4	39	11.2	16	4.6	4	1.2	
When I am in the chair, I don't feel like I can stop the appointment for a rest, if I feel the need	Male	37	53.6	15	21.7	8	11.6	5	7.2	4	5.8	0.515
	Female	150	43.2	91	26.2	51	14.7	39	11.2	16	4.6	
I feel dentists will do what they want, no matter what I might say I want	Male	24	34.8	22	31.9	16	23.2	6	8.7	1	1.4	0.768
	Female	132	38	112	32.3	65	18.7	25	7.2	13	3.7	
If I were to indicate that it hurts, I think the dentist would not stop and try to correct the problem	Male	30	43.5	16	23.2	14	20.3	6	8.7	3	4.3	0.832
	Female	144	41.5	95	27.4	54	15.6	35	10.1	19	5.5	
I think dentists do not like it when a patient makes a request.	Male	24	34.8	22	31.9	17	24.6	5	7.2	1	1.4	0.617
	Female	126	36.3	115	33.1	62	17.9	30	8.6	14	4	
I feel dentists do not provide clear explanations	Male	16	23.2	23	33.3	20	29	9	13	1	1.4	0.151
	Female	90	25.9	125	36	64	18.4	42	12.1	26	7.5	

the dentist (62.5%) [28]. The percentage reported in the present study is relatively high percentage considering that the patient will visit a dentist only if they had symptoms. Therefore according to our findings there is lack of awareness about the maintenance of good oral health and regular visits among the concerned population. These results suggested the importance of incorporating dental education into the general education system in order to raise the positive awareness of the society toward dental health.

Financial barriers to dental visit are one of the most commonly mentioned barriers in most countries including Saudi Arabia [29]. In the present study, cost was the second most common cause to avoid visiting the dentist between both genders (39.9%). In Canada, one in five Canadians experience financial barriers to dental care [30]. On the contrary, cost was considered the least cause for avoiding visiting the dentist in India with a percentage of 10.6%. This could be explained by the fact that dental care services are provided free of charge or at a minimal cost through government health services in India [27]. Despite the free dental treatment in the governmental hospitals in Saudi Arabia, the long waiting list for appointments together with the high cost of dental treatment in the Special Dental Centers make the cost an important factor to be considered regarding the reasons to avoid dental visit.

Female participants of this study reported lack of transportation more often as a barrier than males with the highest significant difference. This may be explained by the limitations of transportation methods for the female and the lack of Public Transportation in general in Saudi Arabia and in particular in Al- Madinah Al-Munawarah.

Finally, there are some limitations for this study. First, the self-administered questionnaire may have less accurate data than that obtained by observation. To minimize this problem, a pilot study was done before distributing the final questionnaire. Also the questions were written in simple words as much as possible. Second, this study was carried out on the university students, therefore the results should not be applied to the general population in Al-Madinah Al-Munawarah. Third, although the sample size of the study may be considered low however it will pave the road for further large scale studies.

5. CONCLUSION

In conclusion, most of the participants of this study reported the frequency of dental visit to be mostly less than 1 every two years. They also reported having a dental visit in the last 6 months. Lack of time, cost and no importance to visit the dentist if there is no pain, were the most common causes that prevented visiting to the dental clinic. Lack of transportation was recorded only by females as a barrier preventing dental visit.

CONSENT AND ETHICAL APPROVAL

The study protocol was reviewed and approved by the Ethical Committee at College of Dentistry, Taibah University. Request was being made to waive informed consent. A self-administered, anonymous questionnaire was used in the study and an introductory part was added at the beginning of the questionnaire explaining its title, nature, confidentiality and voluntary participation.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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