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Factors Affecting Saudi Parents' Perception of their Children's First Dental Visit

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Abstract

The aim of this study was to investigate the effect of different socio-demographic factors of Saudi parents on their knowledge and attitudes toward their children's first dental visit. For this purpose, a self-administered questionnaire was distributed to 909 Saudi parents attending the dental clinic of the College of Dentistry at King Saud University, Riyadh. Results showed none of the factors studied have an affect on the parents' knowledge about the timing of the first dental visit (X^2 test, $P > 0.05$). Significant differences were observed when the factors were tested on parents' attitudes toward behavior modification and management during the first dental visit ($P<0.05$). No significant differences were observed between male and female participants when asked about what should be done in the first dental visit in the absence of pain ($P>0.05$). However, significant differences were observed with the parents' ages and the number of children ($P = 0.027$ and 0.009 respectively). The majority of parents responded they would still visit the dentist after the treatment of the chief complaint. Based on the results, it can be concluded that Saudi parents lack sufficient knowledge about the timing of the first dental visit and the importance of behavior modification for their children.

Keywords: Behavior modification, timing of a dental visit, first dental visit

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Introduction

During the last few decades, contemporary dentistry has developed toward the prevention of oral diseases. The dental prevention therapy should start early in a child's life[1,2] as the available data about caries in primary teeth in 3-5 year old children is relatively high.[3-5] Epidemiological studies carried out in Saudi Arabia revealed an increase in the prevalence of dental caries.[6-8] In 2001, Wyne et al.[7] found the number of decayed, missing and filled teeth (DMFT) in primary school children in Riyadh to be 6.3 (± 3.5). However, the need for early intervention to reduce or eliminate oral disease and the lack of awareness by children of the need for oral health mandate the involvement of the parents in the prevention process for their children.

Several studies have correlated the parents' oral status and attitudes toward dentistry with their children's oral status. It has been found the more positive the parents' attitudes are toward dentistry, the better the dental health of their children.[9-11] A survey carried out in 10 regions of Saudi Arabia revealed over 80% of those aged 65-74 years claimed they do not brush their teeth with a toothbrush, but over two-thirds of them use miswak (a wooden tooth-cleaning stick).[12]

A parent's knowledge and positive attitude toward good dental care are very important in the preventive cycle. The prevention of dental caries in children is important to avoid premature loss of the primary teeth and to decrease the risk of future dental caries in the permanent teeth.[13] One of the preventive methods for children is the early dental visit. The American Academy of Pediatric Dentistry (AAPD) recommends the first dental visit occur within six months of the eruption of the first primary tooth and no later than twelve months of age.[2] In a previous study, it was reported Saudi parents have a low level of knowledge about the timing of their children's first dental visit.[14]

The purpose of this study was to assess the Saudi parents' attitudes in relation to factors such as age, gender, and number of children toward the timing of the first dental visit for their children and the need for behavior modification during that visit. Collecting such information may be beneficial to plan and implement a comprehensive oral health education program for Saudi parents.

Material and Methods

A questionnaire consisting of a cover page, personal data, and twelve questions was used in this study. The details of the questionnaire and the distribution methodology were published previously.[14] In summary, parents attending the College of Dentistry at King Saud University were asked to complete a questionnaire related to their children's first dental visit. A total of 877 questionnaires out of 909 were returned giving a response rate of 96.5%.

A total of 420 questionnaires were excluded for the following reasons:

- The questionnaire was filled out by single participants who do not have children
- The questionnaire was filled out twice by the same parent
- The questionnaire was not fully completed

The participants' responses (457) were correlated to different demographic factors of age, gender, and number of children in the family. Data were entered and analyzed using the Statistical Package for Social Sciences (SPSS vr.10.0) program. One way frequency tables were generated to show the descriptive statistics. The Chi-Square statistical test was utilized to find out any significant differences between the responses.

Results

Demographic information on the participants is presented in Table 1. The major age group ranged from 31 to 40 years old. There were 286 males and 171 females among the parents (62.6% and 37.4% respectively). In most of the families there were 1-3 children.

Parents' knowledge about the timing of the children's first dental visit

The parents' gender, ages, and number of chil-

Table 1. Demographic information of the parents participating in this study.

Factor		N	%
Age	<20 Years	33	7.2
	21-30 Years	109	23.9
	31-40 Years	175	38.3
	41-50 Years	85	18.6
	> 50 Years	55	12
Gender	Male	286	62.6
	Female	171	37.4
No. of Children less than 10 Years *	One	94	23.7
	Two	97	24.4
	Three	96	24.2
	Four	41	10.3
	> Four	69	17.4

* Not all of the parents answered the question.

dren in the family were not found to be associated with their knowledge about the timing of the first dental visit (Table 2). Most male and female parents thought bringing the children in the first year of life was inappropriate (74.2% and 78.2% respectively). No significant differences were found between the different factors and the parents' knowledge (X^2 test, $P > 0.05$).

Attitudes toward behavior modification during the first dental visit

Overall, respondents preferred behavior modification of their children during the first dental visit (Table 3). Among parents who disagreed with behavior modification at the first visit, there was a statistically significant difference by gender, age, and number of children with P-values of 0.022, 0.014, and 0.041 respectively. However there was little variation in response by gender (74.5% of males and 71.35 of females) in parents who preferred behavior modification. Respondents above the age of 50 years were the least willing to accept behavior modification in the first dental visit (49.0%). Disagreement with behavior modification was highest (18.3%) among those families who had only one child.

Opinions about what should be done in the child's first dental visit in absence of pain

There was no statistical difference (P>0.05) between males and females as 46.3% of males and 40.5% of females preferred starting with behavior modification in the absence of pain (Table 4). There were statistically significant differences among parents' ages and the number of children (P=0.027 and 0.009 respectively). Still the youngest parents (<20 years) had the least favorable attitudes toward behavior modification. The highest preference for behavior modification occurred in the respondents aged 21-30 years and in families who had four children (53.3% and 52.5% respectively). Regardless of the demographic factors, a considerable percent of parents reported there was no need to visit the dentist if there was no pain.

Opinions about visiting the dentist after treatment of the chief complaint

When participants were asked about the need to visit the dentist after the chief complaint had been treated, the opinion of the majority of participants was to visit the dentist even if the chief complaint had been treated (Table 5). Twenty-one to 30 -year old parents and those families with more than four children constituted the highest percent (77.8% and 81.8% respectively) of parents who reported the need to continue dental visits for their children. No statistically significant differences were found in the parents' responses by sex, age, or number of children (P>0.05).

Discussion

Parents are a child's primary source of information about oral health. Parents' practice of oral

Table 2. Percent distribution of respondents' knowledge about the timing of a child's first dental visit.

The children's first dental visit should be in the first year of life.			
Factor		**Correct %**	**Incorrect %**
Gender	Male	25.8	74.2
	Female	21.8	78.2
	P- value*	0.332	
Age	<20 years	21.2	78.8
	21-30	25.7	74.3
	31-40	25.6	74.4
	41-50	24.1	75.9
	>50	19.2	80.8
	P- value*	0.883	
Number of Children	One	20.9	79.1
	Two	28.1	71.9
	Three	14.9	85.1
	Four	30.0	70.0
	>Four	29.7	70.3
	P- value*	0.106	

* X^2 test.

Table 3. Percent distribution of the respondents' attitude toward behavior modification during the first dental visit.

Factor		**Disagree %**	**Prefer %**	**Visit another dentist %**	**Others %**
Gender	Male	12.4	74.5	10.1	3.0
	Female	6.4	71.3	18.7	3.5
	P- value*	0.022			
Age	<20 years	15.2	78.8	6.1	
	21-30	7.5	74.8	14.0	3.7
	31-40	11.3	75.0	10.7	3.0
	41-50	4.9	80.2	11.1	3.7
	>50	16.3	49.0	30.6	4.1
	P- value*	0.014			
Number of Children	One	18.3	72.0	6.5	3.2
	Two	5.3	75.5	17.0	2.1
	Three	8.6	69.9	18.3	3.2
	Four		82.5	15.0	2.5
	>four	10.8	70.8	12.3	6.2
	P- value*	0.041			

* X^2 tests.

Table 4. Percent distribution of respondents' opinions on what should be done during the first dental visit in the absence of pain.

Factor		Do what parents want %	Behavior modification %	Do not visit the dentist %	Others %
Gender	Male	11.1	46.3	40.4	2.2
	Female	16.1	40.5	39.9	3.6
	*P- value**	0.328			
Age	<20 years	24.2	27.3	48.5	
	21-30	9.5	53.3	33.3	3.8
	31-40	14.8	41.4	43.2	0.6
	41-50	9.0	50.0	34.6	6.4
	>50	13.2	35.8	47.2	3.8
	*P- value**	0.027			
Number of Children	One	7.7	31.9	58.2	2.2
	Two	14.6	50.0	35.4	
	Three	14.0	38.7	41.9	5.4
	Four	17.5	52.5	25.0	5.0
	>Four	17.2	48.4	29.7	4.7
	*P- value**	0.009			

* X^2 tests.

Table 5. Percent distribution of respondents' opinions about visiting the dentist again after chief complaint had been treated.

No need to visit dentist again, If chief complaint is treated.			
Factor		Correct %	Incorrect %
Gender	Male	27.0	73.0
	Female	25.7	74.3
	*P- value**	0.767	
Age	<20 years	24.2	75.8
	21-30	22.2	77.8
	31-40	29.2	70.8
	41-50	25.9	74.1
	>50	28.8	71.2
	*P- value**	0.750	
Number of Children	One	30.1	69.9
	Two	30.9	69.1
	Three	27.4	72.6
	Four	22.5	77.5
	>Four	18.2	81.8
	*P- value**	0.374	

* X^2 tests.

hygiene as well as their knowledge of oral health is reflected in their children. Mothers have the greatest influence on the type and number of bacterial strains in their children; it has been shown streptococcus mutans is transmitted from mothers to their infants.[15-17] The importance of early prevention has been supported by the fact children who are infected after the age of 3 years had a significantly lower caries incidence than those who were infected earlier.[16,18]

Therefore, the first dental visit of a child is considered to be one of the major dental caries prevention measures; hence, the recommendation by the AAPD that an infant's first oral healthcare visit should be within 6 months of the eruption of the first primary tooth.[2] Infant oral healthcare begins with oral health counseling for the parents and should include an oral examination of the child as well as some initial health education. An analysis of dental visits in American children revealed only 20.4% aged 0-5 years had a diagnostic and preventive service visit.[19] In Saudi Arabia, it has been reported the majority of parents independently thought ages 3 or 6 years were the best ages for the first dental visit; 45.5% of the parents considered their children to be unable to cooperate with the dentist if seen earlier.[14]

Results showed a low number of parents think the first dental visit should be in the first year with no difference between fathers and mothers. Similarly, Wyne et al.[20] showed approximately 75% of 2 to 3 year old children in Adelaide, Australia, did not visit the dentist. This may indicate parents generally lack sufficient knowledge about dentistry. Furthermore, no difference was seen between parents' ages and their response to the timing of the first dental visit. The number of children in the family had no affect on participants' responses.

In pediatric dentistry, it is advisable not to perform any operative procedure during the first dental visit. Behavior modification and management are important steps in the treatment of a child. Since the first dental visit is associated with fear and anxiety, the dentist's objective is to reduce these two factors to make future dental visits less stressful to the child and the parents. Parental anxiety, previous medical experience, and a child's peers have been shown to influence a child's behavior.[21,22]

The present study shows a significant difference between mothers and fathers when asked about the behavior management pediatric dentists commonly use during the first dental visits. A previous study has shown most parents are willing to schedule extra appointments dedicated to behavior management to avoid creating possible lifelong fear of dental treatment.[23] Results from this study showed the majority of parents prefer to have behavior management carried out in the first dental visit. A higher percentage of mothers indicated they would visit another dentist if no treatment was accomplished other than behavior management of the child at that visit. For older parents (>50 years), a lower percentage preferred behavior management techniques in the first dental visit (49.0 %) compared with 75-80% in the age group of 20-50 years. This might be attributed to the fact older parents are not overly protective parents as compared to younger parents. Other possible reasons could be the previous dental experience with their children, or simply the extra time required for frequent visits might not be acceptable to older parents. In addition, results showed parents who have more than one child tend to visit another dentist if the first dentist did not perform dental treatment other than behavior management during a child's first dental visit.

Conclusion

In general, results from this study suggest that a child's first dental visit is related to some parental factors. Saudi parents lack sufficient knowledge about the timing of the first dental visit and the importance of behavior modification for their children prior to treatment. Specific interventions such as education of parents by dentists and physicians, especially pediatricians, may increase the awareness of the importance of early dental visits for children. Physicians and pediatricians assume more responsibility since parents seek care for their young children from them more often as compared to the dentist at the early age of children. Physicians and pediatricians are encouraged to guide parents to seek dental care for their children at an early age for early detection and/or prevention of dental or oral anomalies and diseases.

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