

Parents' attitude towards children's first dental visit in the College of Dentistry, Riyadh, Saudi Arabia

Thakib A. Al-Shalan, MS, PhD, Basim A. Al-Musa, BDS, Abdulmoniem M. Al-Khamis, BDS.

ABSTRACT

Objectives: The objectives of this study were to evaluate parents' awareness about the timing of the first dental visit for their children, the parents' attitude toward behavior modification for their children at the first dental visit, and to determine the main reasons for bringing the child to the dentist in the first visit among the Saudi parents attending the dental school at the College of Dentistry, King Saud University, Riyadh.

Methods: A self-administered questionnaire consisting of 12 items was distributed to any adult patient reporting at the Registration Appointments and Records Division of King Saud University, College of Dentistry, Riyadh, Kingdom of Saudi Arabia, during the year 2001. The questionnaire response rate was 96.5%.

Results: Some parents reported that their child's first

dental visit should be in the 3rd year (42%) while others thought it should be in the 6th year (34.4%). Seventy-three percent of the parents prefer behavior modification during the first dental visit. Regular visit (40.3%) and emergencies (28.1%) were the main reasons to bring the children to the dentist.

Conclusion: These data indicate that there is a relatively low level of parents' knowledge about the timing of a child's first dental visit. The dental profession and pediatricians have major responsibilities to change this concept.

Keywords: Dental caries, dental visits, knowledge, parents.

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Primary teeth are not less important than the permanent teeth. Once the primary teeth start to erupt, dental plaque that is considered the major cause of dental diseases which begins to adhere to the teeth and regular dental care for the child becomes essential. It is the parents' responsibility to take care of their children's teeth in combination with the dentist's advice. This is because the child at that age lacks the awareness of the importance of the teeth, the knowledge in dental health care, and the ability to maintain the required oral health. Some parents think that there is no need to bring the child

to the dentist as long as the permanent teeth are not yet erupted. In addition, some parents consider the pain as a predictor for the first dental visit for their children. Review of records for patients, who visited the dentist under the age of 4 years, revealed that 51.9% of them were due to injuries and only 25.4% for preventive services.¹

In the United States of America, previous epidemiological studies have confirmed significant decrease in the overall caries prevalence.^{2,3} However, studies showed that caries prevalence in 3 to 5-years-old is relatively high.⁴ O'Sullivan and Tinanoff⁵

From the Department of Preventive Dental Sciences (Al-Shalan) and Interns Clinic (Al-Musa, Al-Khamis), College of Dentistry, King Saud University, Riyadh, Kingdom of Saudi Arabia.

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Address correspondence and reprint request to: Dr. Thakib A. Al-Shalan, Assistant Professor, Department of Preventive Dental Sciences, College of Dentistry, King Saud University, PO Box 60169, Riyadh 11545, Kingdom of Saudi Arabia. Tel. +966 (1) 4676648. Fax. +966 (1) 4678545. E-mail. thakib@ksu.edu.sa

reported that 16% of 3-4 year old Head Start Children in Connecticut have dental caries. In the United Arab Emirates, it has been shown that the decayed missing and filled teeth (DMFT) was 5.82.⁶ In the Kingdom of Saudi Arabia (KSA), it has been reported that the mean dmft for 6-year-old boys was 4.14 and for girls was 3.43.⁷ Additionally, a study carried out in Jeddah, KSA, showed that the prevalence of Nursing Bottle Syndrome (NBS) is 20%, and 67% of them had the most severe form.⁸ Due to significant relationship between caries in primary teeth and caries incidence in the permanent teeth,⁹ it is important to increase all possible preventive measures in the early stage of a child's life to decrease the caries incidence in the permanent teeth. Early dental visit is one of the possible preventive measures. It was recommended that the children's first dental visit should be by the age of 3 years.¹⁰ It was claimed that a child less than 3 years lacks the ability to cooperate with the dental staff.¹¹ After full understanding of the disease process and the possibility that dental diseases affect the primary teeth before 3 years of age, the American Academy of Pediatric Dentistry (AAPD) and the American Dental Association (ADA) recommend that the children should have their first dental visit at approximately the time of eruption of the first tooth or at the latest age of 12 months.¹² This visit is non-threatening and few if any infants by that age have an oral problem that requires treatment.¹² Furthermore, the children will become familiar with the dental staff and makes the future dental treatment less anxious for them. In addition, the dentist can give advice to the parents (Anticipatory Guidance). Wyne et al¹³ in a survey in Adelaide, South Australia showed that only one in 10 children had visited the dentist at or before the age of 12 months.

Previous studies indicate that there is lack of parents' awareness about the importance of the primary teeth, the early dental visit for their children and dental health knowledge.¹⁴⁻¹⁷ Therefore, the purpose of this study was to evaluate the knowledge of the Saudi parents attending dental clinics in the College of Dentistry, King Saud University, Riyadh, KSA about the first dental visit for their children as regard to timing, behavior modification and reasons for bringing children to the dentist.

Methods. A questionnaire, consisting of a cover page, personal data and 12 questions was designed to be used in this study. The cover page includes invitation of the parents to participate in this study. In addition, each participant was informed in writing for the electiveness of participation. To test the questionnaire, 28 copies of the questionnaire were distributed to interns (both males and females) and they were requested to write any note regarding the questionnaire. Then, the questionnaires were collected and modified. To test the patient's opinion on the questionnaire, 28 copies of the questionnaire

were distributed to the first attended patients in the Registration Appointments and Records Division (RARD) both in Malaz University Campus (MUC) and Derreiyah University Campus (DUC), Riyadh, KSA as a pilot test. The questionnaire was collected at the same visit and used to further modify the questionnaire to be ready for the proper study. Nine-hundred copies of the questionnaires were distributed to the patients who attended at the RARD in both MUC and DUC and they were requested to answer the questionnaire and return it to the receptionist during the same visit. The questionnaire was distributed and collected by the receptionist to any adult Saudi patient regardless of the marital status. Data was entered and analyzed using Statistical Package for Social Science (SPSS versus 10.0) program. One way frequency tables were generated to show the descriptive statistics. Chi-square statistical test was utilized to find out any significant differences between the responses.

Results. Out of 909 questionnaires, 877 were returned to the receptionist to give a response rate of 96.5%. The questionnaire that was answered by any single patient, repeated by the same patient or was incomplete (at least the personal data and most of the questions should be answered) were excluded. After exclusion process, the total number suitable for analysis was 457. **Table 1** shows some parental factors (age, gender, and number of children less than 10 years). The majority of parents were aged 31-40 years (38.3%) followed by 21-30 years (23.9%). The percentage of male in the study was 62.6% and female was 37.4%. Most of the parents have 1-3 children aged less than 10 years.

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) |
| n of children <10 years* | |
| one year | 94 (23.7) |
| 2 years | 97 (24.4) |
| 3 years | 96 (24.2) |
| 4 years | 41 (10.3) |
| >4 years | 69 (17.4) |
| * not all patients answered the question. n - number | |

Table 2 - Parents' opinion on timing of children's first dental visit.

| Question | Response | n (%) | χ^2 test p-value |
|---|--|---|-----------------------|
| First dental visit should be at what age?* | 1st year 3rd year 6th year others | 69 (15.5) 187 (42) 153 (34.4) 36 (8.1) | 0.0001 |
| Its important to visit the dentist in the first year? | Correct Incorrect | 106 (24.3) 331 (75.7) | 0.0001 |
| Reasons for not seeing the dentist in the first year.*§ | Teeth are not yet completed and not affected by diseases. Teeth are not yet completed and no benefit from visiting the dentist. Child will be uncooperative in the first year. Others | 76 (23.3) 103 (31.7) 148 (45.5) 15 (4.6) | 0.0001 |
| * not all patients answered the question. § more than one answer. n - number, | | | |

When asked regarding the timing of the first dental visit, some parents (42%) reported that the 3rd year was the best age while others (34.4%) thought it should be in the 6th year (**Table 2**). Most of the parents (75.7%) thought that visiting the dentist in the first year of age was inappropriate. The reasons for this response were due to the child's uncooperative behavior or probable non-compliance (45.5%), lack of benefit (31.7%) and incompleteness of teeth (23.3%). Statistically significant differences were found between the parents' responses for all the questions (χ^2 tests, $p=0.0001$).

Nearly three quarters of the participants preferred behavior modification during the first dental visit (**Table 3**). In contrast, 13.5% of them will visit another dentist if no treatment other than behavior management was provided at the first visit. Encouraging the child to visit the dentist was the

selected approach by most parents (74.3%). On what should be carried out at the first visit if there was no pain, 42.2% of parents like the dentist to start with behavior modification, while 38.5% of them will not bother to visit the dentist in the absence of pain. The main reasons for bringing the child to the dentist were to have regular treatment (40.3%), emergency treatment (28.1%) and check up (25.6%) as shown in **Table 4**. A quarter or one in 4 of these parents (26.5%) believed that there was no need for the child to visit the dentist again after the chief complaint had been treated. The χ^2 tests showed statistically significant differences in the parents' responses ($P=0.0001$).

Discussion. Preventive dental care is fundamental in dentistry for children, since a study found a relationship between caries in the primary

Table 3 - Parents' opinion on timing of children's first dental visit.

| Question | Response | n (%) | χ^2 test p-value |
|---|---|---|-----------------------|
| First visit without complaint and with behavior modification by dentist.* | Disagree Prefer Visit another dentist | 44 (10) 321 (73.3) 59 (13.5) | 0.0001 |
| Best approach in bringing the child to the first dental visit is:* | Force child Enhance child Not to tell child | 59 (13.3) 329 (74.3) 53 (12) | 0.0001 |
| In the first dental visit (if no pain) what should the dentist do?* | What the parents want No treatment but behavior modification I do not visit the dentist if there is no pain Others | 57 (12.5) 193 (42.2) 176 (38.5) 12 (2.6) | 0.0001 |
| * not all patients answered the question. n - number | | | |

Table 4 - Attitude for bringing the child to the dentist.

| Question | Response | n (%) | χ^2 test p-value |
|---|-----------|------------|-----------------------|
| Reasons for visiting dentist* | Emergency | 122 (28.1) | 0.0001 |
| | Regular | 175 (40.3) | |
| | Check up | 111 (25.6) | |
| | Others | 26 (6) | |
| If chief complaint treated no need to visit dentist* | Correct | 118 (26.5) | 0.0001 |
| | Incorrect | 327 (73.5) | |
| * not all patients answered the question. n - number | | | |

and the permanent teeth.⁹ The preventive process should begin early to ensure a successful outcome. The ADA and the AAPD recommend that the first dental visit should be within 6 months of the eruption of the first primary tooth or at the latest age of 12 months.^{12,18} The goal of early dental visit is to build the relationship between the child and dental staff. In addition, parents can be informed about different preventive methods. Therefore, the infant oral health care visit should be seen as the foundation on which a lifetime of preventive education and dental care can be built.¹⁸ The benefits of using a questionnaire is to explore parental attitude had been reported.¹⁹ To design a reliable and valid questionnaire and to test the patient response, the questionnaire was distributed as a pilot test. In order to be practical and to achieve the ease of distribution, the questionnaire was given out by the receptionist to any adult patient, and a high response rate (96.5%) was accomplished. Although an appreciable number of the returned questionnaires was excluded, an acceptable sample was still achieved (457). It was thought that the distribution of the questionnaire by a 3rd person and not by the investigators would be advantageous, as the bias would be reduced if the parents answered the questionnaire away from the dentist. Another probable source of bias might be from the place of recruitment of the participants. The questionnaire and data collection methods in this study may have certain limitations. For example, the educational level and socioeconomic status of the participants were not included though this could affect the results. Also, the sample was drawn exclusively from one area which is not representative of the whole community. To overcome these drawbacks, future studies are recommended.

Parents in this study reported that first dental visit for one-year-old child is inappropriate due to the inability of the child to cooperate. This view might be due to lack of appropriate information to the parents. The knowledge of the parents on preventive treatment is very important, as this will be reflected

in their children's oral health. Several studies have shown that the mother's educational status is inversely related to early caries prevalence and incidence.^{14,15} Furthermore, during the childhood period, parents have the opportunity to shape their children's behavior by encouraging and discouraging particular habits. A study carried out in Kuwait reported that only 6% of the mothers were aware of the importance of bacteria and sugar in dental caries.¹⁶ Incorrect tooth brushing was reported by one third. A recent study conducted in KSA showed that 33.9% of the parents thought that the primary teeth are not important and 45.1% thought it is better to extract the primary teeth if there is pain instead of treating them.¹⁷ Therefore, the dental profession in KSA has a major responsibility to improve the low level of parents' knowledge of a child's oral health, particularly the benefits of a child's first dental visit at the age of one year. Perhaps, there is also the need for family physicians and pediatricians, who see these children early in life, to advise the parents to take their children to the dentist for routine check up once they are one year old. A first dental visit at the age of one enables the dentist to lay the foundation on which a lifetime of preventive education and dental care can be built, in order to help assure optimal oral health care into childhood.¹⁸

This study showed that most of the parents preferred behavior modification during the first visit (73.3%). A considerable number still disagreed with the importance of behavior modification and would visit another dentist if no treatment other than behavior management was provided at the child's first visit. Others will not even visit the dentist if there was no pain. This indicates the lack of knowledge on pediatric dentists' approaches when treating children. This approach may be accepted by parents if explained properly. Allen et al²⁰ found that 60% of parents considered information about the behavioral management techniques important for their informed consent. Dentists in KSA have the responsibilities to educate the parents and provide the necessary knowledge regarding the objectives of the various behavior management techniques. Probable reasons for visiting the dentist were investigated. Results showed that a good percentage of the parents would bring the child to the dentist regularly for treatment (40.3%). However, a previous study in KSA reported high dmft.⁷ This reflects that the parents may have the knowledge but they do not practice it. This discrepancy between the knowledge and the actual practice had been reported also by Al-Rowily et al²¹ When the parents were asked what should be carried out in the first visit, 38.5% of them stated that they would not visit the dentist if there was no pain. When asked about the reasons for visiting the dentist, 28.1% considered the emergency as the main reason. These results contradict previous findings¹ that injuries are the main reason for dental

visits. The difference in the findings might be due to the place of participants' recruitments. Participants were recruited from the dental college which may cause them to be biased in answering the questions. Recruiting participants directly from the community may give a more representative information.

Finally, this study showed that participants prefer behavior modification in the first dental visit. Parents did not accept the concept of early dental visit at ≤ 1 -year. This indicates that there is a real need to improve the parents' knowledge of dental care for the young child.

In conclusion, most Saudi parents reported that the child's first dental visit should not be in the first year of age. Nearly all the parents thought that it was better to start with behavior modification during the first dental visit. The most common reasons for children dental visits were for regular treatment, emergency, and check up.

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