



Original Article

## Child Behaviour in the Dental Clinic: Parent's Perception Regarding various Influencing Factors

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### Abstract

**Objective:** To evaluate the parents' view regarding factors influencing child behaviour in dental clinic. **Materials and Methods:** This was a cross-sectional study conducted among parents who brought their children to the Paediatric Dental Clinic in Malaysia. Parents completed a close-ended questionnaire (n=274). The questionnaire was divided into 4 separate categories. The questionnaire assessed parental views on the following 4 parameters: dentist, dental clinical settings, dental treatments and child related factors. Data were analyzed using descriptive statistics. **Results:** According to parent's perception, dental treatment plays the most significant role on a child's behaviour in the clinic when compared to other parameters. No significant difference between the "yes" and "no" responses for dentist, dental settings and child related factors as agreed by parents. **Conclusion:** Parental attitudes are constantly changing as the society evolves. So it is important to reassess their beliefs regularly and update our understanding of their attitudes. This will help to modify and shape the patient's attitude toward dental care and dental caregivers.

**Keywords:** Perception; Child Behavior; Dental Care for Children.

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## Introduction

Pediatric dentists provide oral health care and treat dental diseases in infants, children, adolescents and persons with special health care needs. Every child is unique and pediatric dentists have a wide range of approaches to help a child complete his/her needed dental treatment. Dentists recommend behaviour guidance methods for the child based upon their health history, special health care needs, dental needs, type of treatment required, the consequences of no treatment, their emotional and intellectual development, the parents' preferences, dentist's preferences and skills. The challenge of treating children who are unable or unwilling to cooperate has led to the development of a variety of behaviour management techniques.

One aspect of behaviour management research aims to gain an understanding of parental perceptions and determine the factors that affect child attitude in dental clinic. Societal, professional views and parenting styles have changed tremendously over the past years. Understanding parental perceptions on factors influencing child behaviour in the dental clinic is crucial and it presents an opportunity to carefully work together and select the best treatment method to make the child's visit as safe, effective and comfortable as possible.

The aim of this study was to understand parents' perception regarding the factors influencing child behaviour in dental clinic.

## Material and Methods

### Participant Selection

A total of 300 parents who visited paediatric dentistry clinic for their child treatment were included. A total of 274 parents agreed to participate in the study. Parents who did not give consent were excluded. Information on non-respondents was not collected and therefore were not part of the analysis.

A specialized questionnaire was prepared which consisted of 16 close-ended questions. The questionnaire was divided into 4 separate categories. The questions focused on 4 parameters which include dentist, dental clinical settings, dental treatments, and child related factors. Parents were required to complete the questionnaires within the treatment hours.

Inclusion criteria: Parents of children with normal developmental milestones; Parents should have minimum one previous dental treatment visit. Exclusion criteria: Parents of children who require special needs or have associated systemic conditions.

### Statistical Analysis

From collected information, data were tabulated, processed and a descriptive analysis was performed.

## Results

The results of 274 participants were as shown in Tables. Probabilities of the t-test for the 4 parameters evaluated are Dentist ( $p= 0.3358$ ), Dental settings ( $p= 0.0878$ ), Dental treatment ( $p= 0.0042$ ), Child related factors ( $p= 0.4246$ ). The p-values for dentist, dental settings and child factors were over 0.05 ( $p>0.05$ ), indicating that there was no significant influence of the above parameters, whereas p-value for dental treatment factors were under 0.05 ( $p<0.05$ ), which indicates that there is a significant difference between the two responses (Yes or No). Therefore, according to parent's perception, dental treatment plays the most significant role on child's behaviour in the dental clinic.

**Table 1. Characteristics of Parents**

Variables	N	%
Age (years)		
21-30	168	61.3
31-40	88	32.1
41-50	18	6.6
Gender		
Male	109	39.8
Female	165	60.2

**Table 2. Parents' opinion on various factors affecting the behaviour of their child in the clinic.**

Do you think the following factors affects your child behaviour in the clinic?	Yes		No	
	N	%	N	%
<b>Dentist</b>				
Dentist attitude (friendly, stern, etc)	232	84.7	42	15.3
Dentist attire (with or without lab coat)	169	61.7	105	38.3
Gender	126	46.0	148	54.0
Total	527	64.0	295	36.0
<b>Dental Settings</b>				
Pleasantness of dental setup (color, decoration, etc)	202	73.7	72	26.3
Friendliness of staffs	223	81.4	51	18.6
Total	425	78.0	123	22.0
<b>Dental Treatment</b>				
Duration of procedure	232	84.7	42	15.3
Type of procedure (filling, scaling, extraction, etc)	211	77.0	63	23.0
Dental appointment timing (morning/afternoon)	154	56.2	120	43.8
Sound and noise of instrument	203	74.1	71	25.9
Absence / presence of parents during procedure	201	73.3	73	26.7
Behaviour of other children undergoing treatment	169	61.7	105	38.3
Total	1170	71.0	474	29.0
<b>Child</b>				
Age of the child	217	79.2	57	20.8
Gender of child	119	43.4	155	56.6
Previous dental experience of the child	210	76.6	64	23.4
Diet Consumed by child	94	34.3	180	65.7
Previous dental experience of peers and/or siblings	153	55.8	121	44.2
Total	795	58.0	577	42.0

## Discussion

As per the results (Table 2), 64% of parents agreed that attitude, attire and gender of the dentist affects the child's behaviour in the dental clinic. Among the results, 85% of the parents

claimed that dentist's attitude played an important role in child behaviour and dentist attire (62%) also played a part in child behaviour. There was no large difference in results regarding the gender of the dentist in the parent's perception. When it comes to apparel for the dental team, there has been a concern that professional clothing and white lab coat worn by the dentist can increase anxiety in children. If a child has had previous poor experiences with a professional in a white coat, it is possible that these fears could be generalized to the dental environment. It was found that wearing a mask during dental treatment represents a stressor for the young child, and so it is recommended to introduce the child to the dental environment without the use of a protective mask [1]. Personal protective equipment could potentially interfere with the communication process between providers and the patient. It also aggravates dental fears by decreasing the providers voice quality and obstructing the nonverbal cues [2]. Studies have shown that 58% of parents significantly preferred non-white coat attires among dentists [3] and preferably in a formal attire [4]. The dentist should also pay attention to his attitude when dealing with children in the dental clinic in order to gain the child's confidence and trust. The behaviour of the dentist and dental staff members are the primary tools used to guide the behaviour of the pediatric patient. The dentist's attitude, body language, and communication skills are crucial in creating a positive dental visit for the child and also to gain trust from the child and parent [5].

As per the results, 65% of parents agreed that pleasantness of dental setup (colour, decoration) and friendliness of staff affects the child's behaviour in the dental clinic. Among the results, 80% of the parents claimed that dental setting plays an important role on child's behaviour in the dental clinic. These results are in accordance with a similar study, which showed the effects of dental atmosphere on child's emotion and behavioural intentions [6]. American Academy of Pediatric Dentistry (AAPD) reveals that the orientation of dental environment plays an important role in determining the child's behaviour during the treatment [5]. The use of child friendly colors like yellow and blue in the dental work place could enhance a positive dental attitude in the child's mind [7]. Children had positive reactions to bright colors (e.g., pink, blue, red) and negative emotions for dark colors (e.g., brown, black, gray) [8].

The healthcare industry realizes that service spaces have an important impact on customers [9]. In today's competitive dental healthcare environment, patients are more demanding; therefore, it is important for healthcare providers to understand what patients experience in their facilities [10]. All these results show that the dentist should also pay attention to the dental settings in addition to focusing on the treatment provided in the clinic. The overall function of the dental settings should dictate the form of its design and layout rather than adapting function to a prearranged design. This will eventually attract the child to undergo the treatment in a well behaved manner. Thus, the dentist needs to incorporate the future technological advancements in office designs and plan accordingly.

In our study, the majority (71%) of parents agreed that dental treatments do affect child's behaviours in the clinic. Among the results, 84% of the parents agreed that treatment duration

affects child's behaviour, which is similar to previous study [11]. Furthermore, 74% of parents agreed that dental instruments' sound and noise have an effect on child's behaviour. Similar studies showed that 77% of parents agreed that type of procedures such as dental drilling / restoration and sight of instruments cause anxiety and fear in children. However, injection and extraction may cause higher level of anxiety [12]. Eliminating four of the primary sensory triggers in the dental setting: sight (air-turbine drill, needles), sounds (drilling), sensations (high-frequency vibrations [the annoyance factor]), and smells can help alleviate anxiety [13]. Besides that, 73% of parents believed the presence of parents during the procedure might influence child's behaviour but however, a study showed that presence / absence of parents has no effect towards children behaviour [14].

Based on our survey results, 58% of parents stated that child related factors (age of child, Gender of child, previous dental experience of child, diet taken by child and previous dental experience of child's sibling) has influence on their behaviour in dental clinic. Among the results, 79% of parents think that child's age has influence in their behaviour in dental clinics. Longitudinal behaviour analysis studies conducted by Cunha and his colleagues showed that child undergoing dental care was directly influenced by child's psychomotor development [15].

In our study 43% of parents agreed that child's gender has an impact on child's behaviour in dental clinics. However, Alsaheed's study on "child's perception concerning their visit to dentist" has shown that girls are more willing to visit and cooperate with dentists when compared to boys of same age [12], 76% of parents believed previous dental experience of the child has some relevance to their behaviour in dental clinic. According to some authors, the most common emotional upsets seen during dental treatment are anxiety and fear, which might originate from a previous traumatic experience in the dental office or during hospitalization for other reasons [16].

Diet consumed by child has some influence on their behaviour in dental clinic as believed by 34% of parents in our study. Diet can affect cognitive ability and behaviour in children and adolescents [17]. In our study, 56% of parents said that previous dental experience of child's sibling has impact on the child's behaviour in dental clinic. Also some authors stated that first-born children would demonstrate less negative behaviour than later-born children in the dental procedures [18].

## Conclusion

In developing countries, the need for pediatric oral health care is increasing. The success of pediatric dentist practice is dependent not only on the technique applied or the technical skills of the pediatric dentist but it also relies on patients and their parents. Positive interaction between pediatric dentists, children and parents is very important to improve the work efficiency. Parental attitudes are constantly changing as society evolves, so it is important to regularly reassess their beliefs and update our understanding of their attitudes. This will help to modify and shape the patient's attitude toward dental care and dental caregivers. Further research should examine in a prospective intervention, whether understanding parenting perception is an effective route in preventing childhood dental anxiety problems.

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