




## Parental Presence in Dental Operatory as a Behaviour Management Tool on Children in Bhubaneswar, Odisha, India

Sonu Acharya<sup>1</sup>, Priyanka Jena<sup>2</sup>, Sheetal Acharya<sup>3</sup>

<sup>1</sup>Department of Pediatric Dentistry, Institute of Dental Sciences, Siksha 'O' Anusandhan (Deemed to be) University, Bhubaneswar, Odisha, India. 0000-0003-1006-1993

<sup>2</sup>Post-Graduate Program, Department of Pediatric Dentistry, Institute of Dental Sciences, Siksha 'O' Anusandhan (Deemed to be) University, Bhubaneswar, Odisha, India. 0000-0001-7062-2735

<sup>3</sup>Periodontics and Implantology Department, Institute of Dental Sciences, Siksha 'O' Anusandhan (Deemed to be) University, Bhubaneswar, Odisha, India. 0000-0002-4786-6237

Author to whom correspondence should be addressed: Dr. Sonu Acharya, Department of Pediatric and Preventive Dentistry, Institute of Dental Sciences, Siksha 'O' Anusandhan (Deemed to be) University, Bhubaneswar, Odisha, India. 751030. Phone: +91 9937793095. E-mail: [sonu\\_ain@yahoo.com](mailto:sonu_ain@yahoo.com).

Academic Editors: Alessandro Leite Cavalcanti and Wilton Wilney Nascimento Padilha

Received: 03 September 2018 / Accepted: 08 January 2019 / Published: 16 January 2019

### Abstract

**Objective:** To interpret the change in child's behaviour in presence/absence of parents during dental care. **Material and Methods:** Sixty children were examined till the age of 12 years visiting the out patient department of pediatric dentistry where parents along with the child were allowed in the operatory. After sometime parents were asked to leave and behavioural changes were noted. During revisit again the behaviour was noted according to Frankl scale. McNemar test was applied to test the behaviour response of children with parental absence/presence. The significance level was set at 5 %. **Results:** In 1st visit, 78.3% showed positive behaviour and 21.7% showed negative behaviour in parental absence, indicating that the child has more likelihood of showing positive behaviour in the presence of parents ( $p < 0.001$ ). More positive behaviour of the children is noticed, when the parents are present in 3-5 year age group. In other 6-8 and 9-12 year age group, no difference was noticed in the presence or absence of the parents ( $p > 0.05$ ). In second visit, the negative behaviour reduced. When parents were absent 21.7% showed negative behaviour ( $p = 0.000$ ). This indicated that the child has more likelihood of showing positive behaviour in the presence of parents. Age group-wise analysis revealed that in the 3-5 years age group presence or absence of parents is a significant factor for child's behaviour. This factor is a non-issue in the elder age group like 6-8 years and 9-12 years. When the parents are absent, no significant difference was observed ( $p > 0.05$ ). **Conclusion:** There was no significant difference in parental presence/absence in elder children while the same can't be said for younger children.

**Keywords:** Emotions; Child Behavior; Dental Care for Children; Parents.

## Introduction

Every child is unique, and each child has specific needs. The parent-child relationship forms the basics of influence of parents on children's behavior. The mother-child relationship is given more importance as mother is often the primary care giver [1]. Children experience many new things while growing up: their first tooth, first words, first steps, first birthday, and first haircut. Parents should be prepared for every step of their child's new life experiences, including dental visits [2].

Various psychological theories (Freud's, Erikson etc) have explored the relationship between parents and their children. Many characteristics of parents are transferred to their children unknowingly. The acquisition of dental fear occurs by three pathways: direct conditioning, modeling, information / instruction [3]. Parent's dental anxiety can greatly influence their child, that's why parents should control their natural behaviour in a dental office.

Lack of co-operation of child is the big problem we as paediatric dentist face in our day-to-day life. There has been a controversy on parental presence in the dental operator. There are many factors responsible for an uncooperative child among which we are going to focus only on the parental factors [4]. Parental factors influencing the behavior in dental clinic: (1) Parent-Child relationship; (2) Parental dental anxiety; (3) Parental attitudes and perceptions regarding child's behavior; (4) Parent's past dental experiences and (5) Parental presence in the dental operator. Therefore, the aim of this study was to interpret the change in child's behavior in presence/absence of parents.

## Material and Methods

### Study Design and Sample

This is a cross-sectional study conducted in Bhubaneswar, India. Sixty children till the age of 12 years were selected from the out patient Department of Pediatric Dentistry. The following inclusion criteria were adopted: All children till the age group of 12 years and children accompanied with parents. As exclusion criteria, it was established: Medically compromised child and mentally challenged child.

### Data Collection

The parents along with the child were allowed in the operator and behaviour of the child was noted using Frankl behaviour rating scale [5]. After sometime parents were asked to leave and behavioural changes of the child were noted according to Frankl behaviour rating scale. During revisit again the behaviour was noted.

**Table 1. Frankl behaviour rating scale [5].**

Rating	Behaviour
Definitely Negative	Refuses treatment, cries forcefully, extremely negative behavior associated with fear.
Negative	Reluctant to accept treatment and displays evidence of slight negativism.
Positive	Accept treatment, but if the child has a bad experience during treatment, may become uncooperative.
Definitely Positive	Unique behavior, looks forward to and understands the importance of good preventive care.

## Data Analysis

Data was analysed using SPSS Statistics Software, Version 23.0 (IBM Corp., Armonk, NY, USA). To describe about the data descriptive statistics, mean and standard deviation were used. Non-parametric McNemar tests was undertaken to test the null hypothesis that behaviour responses of children are unchanged in the presence or absence of parents also between 1st and second visit. The significance level was set at 5 %.

## Ethical Aspects

This research project was approved by the Ethics Research Committee of the Institute of Dental Sciences, Siksha 'O' Anusandhan (Deemed to be) University and all procedures followed were in accordance with the Helsinki Declaration.

## Results

It can be seen from Table 2 that, in the presence of parents all sixty children showed positive behaviour, while in the parents absence 78.3% showed positive behaviour and 21.7% showed negative behaviour. This indicated that the child has more likelihood of showing positive behaviour in the presence of parents ( $p < 0.001$ ).

**Table 2. Childs behaviour: Comparison between parent's presence and absence (1st visit).**

Parents Absent - 1st Visit	Parents Present - 1st Visit			p-value
	Positive N (%)	Negative N (%)	Total N (%)	
Positive	47 (78.3)	-	47 (78.3)	<0.001
Negative	13 (21.7)	-	13 (21.7)	
Total	60 (100.0)	-	60 (100.0)	

All children showed positive behaviour when parents were present, while 12 out of 19 behaved negatively in the absence of parents ( $p < 0.001$ ). More positive behaviour of the children is noticed, when the parents are present in 3 -5 year age group. In other 6-8 and 9-12 year age group, no difference was noticed in the presence or absence of the parents ( $p > 0.05$ ) (Table 3).

**Table 3. Childs behaviour: Comparison between parent's presence and absence (1st visit) by age groups.**

Age Group (Years)	Parents Absent - 1st Visit	Parents Present - 1st Visit			p-value
		Positive N (%)	Negative N (%)	Total N (%)	
3 - 5	Positive	7 (11.7)	-	7 (11.7)	<0.001
	Negative	12 (20.0)	-	12 (20.0)	
	Total	19 (31.7)	-	19 (31.7)	
6 - 8	Positive	21 (35.0)	-	21 (35.0)	>0.05
	Negative	1 (1.6)	-	1 (1.6)	
	Total	22 (36.6)	-	22 (36.6)	
9 - 12	Positive	19 (31.7)	-	19 (31.7)	>0.05
	Negative	0 (0.0)	-	0 (0.0)	
	Total	19 (31.7)	-	19 (31.7)	

When the parents are absent, in the first visit out of 23 children 6 behaved negatively, while 3 children behaved negatively during 2nd visit. However, the difference is not significant ( $p=0.453$ ). During the 1st visit, all sixty children showed positive behaviour and none exhibited negative behaviour while parents were present (Table 4).

In case when parents were absent, 13 (21.7%) showed negative behaviour ( $p=0.000$ ). This indicated that the child has more likelihood of showing positive behaviour in the presence of parents. Age group-wise analysis revealed that in the 3-5 years age group presence or absence of parents is a significant factor for child's behaviour. This factor is a non-issue in the elder age group like 6-8 years and 9-12 years. When the parents are absent, in the first visit out of 23 children 6 behaved negatively, while 3 children behave negatively during 2nd visit. However, the difference is not significant ( $p>0.05$ ).

**Table 4. Childs behaviour: In parent's absence between 1st and 2nd visit.**

Parents Absent - 1st Visit	Parents Absent - 2nd Visit			p-value
	Positive N (%)	Negative N (%)	Total N (%)	
Positive	15 (88.2)	2 (11.8)	17 (73.9)	0.453
Negative	5 (83.3)	1 (16.7)	6 (26.1)	
Total	20 (87.0)	3 (13.0)	23 (100.0)	

## Discussion

The young child is potentially always an ideal patient and it is possible to gain a perfect patient doctor relationship that will positively affect their dental future [6]. However, it is necessary that paediatric dentists, or any dentists treating children, are aware of the principles of paediatric psychology [7]. The need for the dentist to recognize the parental role arises because parental involvement in their children's health care has changed dramatically in recent years [8].

Previous research evaluated very young children aged 41-49 months and found a negative effect of parental separation, which was similar with the results of our study [5]. Another study found no difference whether the parent was in or out which was similar to our results where we found no significant difference in presence or absence of parents in children above 5 years of age [9]. Others authors found no difference in behavior between children treated with or without parents, which was similar to our results [10].

Among British children no significant differences were found in presence or absence of parents in children above 5 years of age [11]. Parental presence affects a child's behaviour in an initial dental visit, which is better when the parent is excluded [12]. The American Academy of Pediatric Dentistry has recognized parental presence/absence as a behavior guidance technique [13].

Uncooperative children displayed positive behaviour as the initial appointment progressed. Parental anxiety transmitted to the child, thus making him more anxious and less accepting the treatment [14]. Pre-school children, children lacking in cooperative potential, and those with a

history of fearful or unpleasant previous experience, arbitrary exclusion of parents from the dental operatory appears increasingly perceived as unproductive and unwarranted [15]. Now trends appear to emerge in the direction of increasing willingness of pediatric dentists to permit parent presence for examination and treatment visits [16].

This study has some limitations. First, the sample size analyzed was small. Second, children's revisits were not recorded. Thirdly, behaviour changes noted only according to Frankl rating scale other scales could also be used for good results.

## Conclusion

Parent should be a partner in the behavior guidance of the child, whose role should be guided by the dentist. In order to do this the dentist should recognize the ways in which the parent influences the child's behavior and customize the guidance for the parent. The dentist should keep in mind that parents often have increasingly lower expectations for their children and higher expectations from the dentist

**Financial Support:** None.

**Conflict of Interest:** The authors declare no conflicts of interest.

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