

BEHAVIOR OF CHILDREN IN DENTAL CLINIC

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ABSTRACT

The study Behavior of children in dental clinic was to analyze and assess the behavior of children during their dental visit to the Pediatric Dental Clinic, College of Dentistry, Ibn Sina university of Medical and pharmaceutical Sciences, Baghdad, Iraq. They were assessed by gender and age. The study was conducted in 48 children who reported to the Pediatric Dentistry clinic during (Academic Year 2021 – 2022). All included children were without any systemic diseases. The children's behaviors were recorded in accordance with the Frankl's behavior scale. The data were summarized and described using relative frequencies and percentages for categorical variables. When the outcome variables were categorical chi – square test was used to examine differences between groups for statistical significance. Statistical significance was set at $p \leq 0.05$. Forty eight children were included in this study. The range of patient's age was 5-12 years. Boy / Girl no. was 25/23. All children were without any systemic diseases. Concerning parents' education; majority of children's father have College and Postgraduate and the lowest have Primary and no education, meanwhile, majority of children's mother have Secondary and high school and the lowest have Primary and no education, Concerning Frankl's Rating Scale; majority of children showed Rating 3 followed by Rating 4, Rating 2 and the lowest was Rating 1. Concerning behavior of children according to gender, non- significant differences was recorded at $p > 0.05$. Concerning types of behavior management techniques used; the majority was Communication followed by modulation, voice control, Tell show do and Positive /Negative Reinforcement, respectively.

KEYWORDS: The children's behaviors were recorded in accordance with the Frankl's behavior scale.

INTRODUCTION

Assessment of children based on their behavior is one of the most important skills for a pediatric dentist. The major aspect of child management in the dental care is managing dental anxiety and fear as it is considered to be the main barrier for successful completion of dental treatment. Children are known to have unfound fear and anxiety. The preschool children do not have the ability to understand a situation. They are in the very early stage of behavior development and little concern with the effect of their behavior on the observer. As the child enters the school, the child initiates the process of socializing and learning the conforming boundaries of behavior. Invariably, the pediatric dentists prefer to use pharmacological measures to achieve a required level of cooperation from very young children (preschool).^[1]

Many behavior rating scales are available to assess and evaluate the behavior of a child on each dental visit. Frankl et al classified child's behavior into four groups according to the child's attitude and cooperation or lack of cooperation during dental treatment. This

classification is known as Frankl behavior rating scale, which is one of the most reliable tools developed for behavior rating of children in dental sittings.^[2]

The child's behavior on dental visit can be influenced by variables like age, parental behavior, parental anxiety, past medical and dental history, awareness of their dental problem, type of dental settings, behavior management and procedural techniques followed by the dentist.^[3]

Several techniques for managing children in the dental office have been developed to modify a child's behavior. The nonpharmacologic tell-show-do technique which consists of verbal explanation of the procedure to the patient, demonstration for the patient of the (visual, auditory and tactile) aspects of the procedure and completion of the procedure, remains the most commonly used technique in pediatric dentistry.^[4,5]

Modeling, nonpharmacologic behavior management technique was described by Bandura in 1967 as a process of acquiring behavior through observation of a model.

Observing a peer (whether live/filmed) successfully undergoing dental treatment is effective in reducing children's fear and anxiety about the dental treatment.^[6-8]

AIMS OF THE STUDY

The aim of the study was to analyze and assess the behavior of children during their dental visit to the Pediatric Dental Clinic, College of Dentistry, Ibn Sina university of Medical and pharmaceutical Sciences, Baghdad, Iraq. The behaviors of children in dental clinic were assessed by gender and age.

MATERIALS AND METHODS

SAMPLES

This study was conducted in 48 children who reported to the Pediatric Dentistry clinic at College of Dentistry, Ibn Sina University of Medical and pharmaceutical Sciences, Baghdad/ Iraq, during (Academic Year 2021 – 2022). All included children were without any systemic diseases.

QUESTIONNAIRE OF BEHAVIOR OF CHILD IN DENTAL CLINIC

The behaviors of the children were recorded in accordance with the Frankl's behavior scale. For each patient, the below information were recorded **Table (1)**.

Table 1: questionnaire - behavior of child in dental clinic.

<ul style="list-style-type: none"> • Child's name: • Age: • Gender: • Systemic disease: • Drug allergy: • Father's education: - College and Postgraduate - Secondary and high school - Primary and no education • Mother's education: - College and Postgraduate - Secondary and high school - Primary and no education • Frankl's Rating Scale <ul style="list-style-type: none"> ○ Rating 1: Definitely negative refusal of treatment crying, forcefully, very fearful. ○ Rating 2: Negative reluctant to accept treatment, then cooperates with some evidence of negative attitude. ○ Rating 3: Positive accepts treatment with cautions. ○ Rating 4: Definitely positive, good rapport with the dentist, interested in dental procedure. Technique(s) used to control child's behavior <ul style="list-style-type: none"> ○ Communication. ○ Voice control ○ Tell show do ○ Modulation ○ Positive / Negative Reinforcement.
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STATISTICAL ANALYSIS

The data were summarized and described using relative frequencies and percentages for categorical variables. When the outcome variables were categorical chi – square test was used to examine differences between groups for statistical significance. Data were analyzed using SPSS software, version 12.0 (SPSS Inc., Chicago, IL, USA) for Windows. Statistical significance was set at $p \leq 0.05$.

RESULTS

Forty eight children were included in this study. The range of patient's age was 5-12 years. Boy / Girl no. was 25/23. All children were without any systemic diseases.

Table (2) demonstrated the parents' education, behaviors of children in dental clinic and the behavior management's techniques.

Concerning parents' education; majority of children's father have College and Postgraduate and the lowest have Primary and no education, meanwhile, majority of children's mother have Secondary and high school and the lowest have Primary and no education,

Concerning Frankl's Rating Scale; majority of children showed Rating 3 followed by Rating 4, Rating 2 and the lowest was Rating 1.

Concerning behavior of children according to gender, non- significant differences was recorded at $p > 0.05$.

Concerning types of Behavior Management Techniques used; the majority was Communication followed by modulation, voice control, Tell show do and Positive / Negative Reinforcement, respectively.

Table 2: demonstrated the parents' education, behaviors of children in dental clinic and the behavior management's techniques.

Variables		No.	Gender	
			Boy	Girl
Father's education	College and Postgraduate	22		
	Secondary and high school	14		
	Primary and no education	12		
Mother's education	College and Postgraduate	18		
	Secondary and high school	18		
	Primary and no education	12		
Frankl's Rating Scale	Rating 1	5	2	3
	Rating 2	9	4	5
	Rating 3	21	11	10
	Rating 4	13	8	5
Behavior Management Techniques	Communication.	28		
	Voice control	8		
	Tell show do	3		
	Modulation	8		
	Positive / Negative Reinforcement	1		

* Chi – square test : P = 2.331 Non-Significant

DISCUSSION

The present study was carried out to determine the behaviors of children in dental clinic according to gender and parents' education, as well as determination the behavior management's techniques used for the children.

Forty four children were included in this study. The range of patient's age was 5-12 years which considered including pre-adolescent children those can communicate with them more easily than smaller children because dental students attempted to select more cooperative children to carry out their dental work.

Concerning parents' education; the result of this study agreed with Veerasamy et al., (2016)^[9], who found that in families when the parents with higher education levels their children tend to have more cooperative behavior in dental clinic.

Concerning children's behavior, the majority of children showed Rating 3 (Positive accepts treatment with cautions) followed by Rating 4 (Definitely positive, good rapport with the dentist, interested in dental procedure) those gave facilities to the dental student's to performed their dental treatment work. Meanwhile, Rating 2 (Negative reluctant to accept treatment, then cooperates with some evidence of negative attitude) and Rating 1 (Definitely negative refusal of treatment crying, forcefully, very fearful) reported to be low frequencies among overall children of this study. These results agreed with other studies those reported that school age children found to be more cooperative in dental clinic and with correct behavior management techniques can manage and control and reshape children's behavior to the degree allow performing the required dental treatment (3).

Concerning types of behavior management techniques used; the majority was Communication followed by modulation, voice control, Tell show do and Positive / Negative Reinforcement, respectively. These results agreed with other studies those demonstrated that all these non – pharmacological behavior management techniques revealed effective and significant reshaping child behavior in dental clinic (4, 5).

CONCLUSIONS

- Most dental students' choice school age patients because they showed more cooperative behavior in dental clinic.
- Concerning behavior of children according to gender, non- significant differences was recorded at $p > 0.05$.
- The children's behavior in dental clinic greatly affected by the parents' education level.
- Majority of children acceptable level of cooperation in dental clinic.
- Concerning types of Behavior Management Techniques used; the majority was Communication followed by modulation, voice control, Tell show do and Positive / Negative Reinforcement, respectively.

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