

Case study

The assessment of the acceptability of behavior management techniques for pediatric patients by their mothers referring to a pediatric dental clinic in Tehran

Abstract:

The use of behavior management techniques for the treatment of children who are uncooperative with a dentist is inevitable. Behavior management techniques are the methods that the dental health team could effectively treat the child and inspires a constructive dental attitude.

Objective: Determining the acceptability of behavior management techniques by mothers referring to a pediatric dental clinic in Tehran(2017).

Materials and Methods: This cross-sectional descriptive study was conducted in a pediatric dental clinic in Tehran. A film, including 4 different behavior management techniques such as general anesthesia(GA), parents' separation(PS), Tell-Do-Show and voice control(VC) was produced. Before showing each method, a brief explanation of the methods' characteristics and purposes was given by a pediatric dentist in the film. A total of 50 mothers, referred to this private dental clinic, completed a questionnaire after observing any method in this film. The data were analyzed using t-test and Chi-square

Results: 56% of the children were boys and 44% were girls and were in the age group of 3 to 10 years old, and children are ranked from first to fifth in the family. Mothers with a primary to postgraduate education were between the ages of 23-50 and had a child to 5 children. The acceptance of Tell-Do-Show by mothers was 100%, Voice Control was 92%, separating the child from parents was 50%, and General Anesthesia was 30%. There was a significant correlation between acceptance of voice control method with child's order, child's age and the number of children in a family, and also between the acceptance of general anesthesia by mothers with mother's education level and child's order ($p < 0.05$).

Conclusion: According to the findings, Tell-Do-Show method was the most common method which was accepted by mothers, and general anesthesia was the least accepted method by the mothers.

Keywords: behavior management, pediatric patients, pediatric dental clinic

Introduction

The goal of pediatric dentistry is prevention from oral health problems and treatment of dental disorders. Fortunately, many children tend to regular dental visits without imposing any pressure on themselves or on the dental health team. However, some children are uncooperative and their dental treatment is impossible without the use of behavior management techniques. The behavior management techniques are based on the basic methods and effective communication between the dental health team and children. In addition to the importance of child's collaboration and needed skills, the acceptability of behavior management techniques by parents is another major problem. Parents play a vital role in empowering children to cope with their stress. Therefore, the treatment of pediatric dentistry regarding the type of communication is different from that of adults. The treatment of adults involves direct

communication, the relationship between the patient and the dentist. While the treatment of children includes two relations. One of them is the relationship between the dentist and child, and the other is between dentist and parent. This communication in pediatric dentistry is a triangular relation. The young patient is at the head of this triangle and recently the society is located at the center of the triangle. Therefore, this study was conducted to determine the behavior management techniques' acceptance of mothers, referring to a pediatric dental office in Tehran.

Materials and methods

The research is a cross-sectional, conducted in 2017 in a pediatric dental office in Tehran. Firstly, a film with the help of a child, using the instructions of American Association of Pediatric Dentistry (AAPD), and under the supervision of a pediatric dentist about three ways including parents' separation, Tell- Do- show and voice control was produced. In the hospital, the film, related to general anesthesia from children who were under dental treatment, was made. The valid reason for presenting four behavior management techniques on a child was that the child's face did not affect the acceptability of either method by the parent. Before describing each method, a brief explanation of the methods' characteristics and purposes was given by a pediatric dentist in the film. The reason for explaining in the film rather than an oral explanation was that the conditions for the screening for all groups were the same. The duration of the screening of each method, along with the explanation, was approximately 3 minutes and the entire movie was 12 minutes. The sequence of displaying methods was: 1- General anesthesia 2- parents' separation 3- Tell- Do- show 4. Voice control.

An experimental study was carried out on ten mothers, referring to a pediatric dental office, to evaluate produced film and make changes. Following the confirmation of the film, the first section of the questionnaire (data of two graphics) was questioned and completed. The inclusion criteria of the study were the lack of any dental history and treatment for the child, and the exclusion criteria included single parenting, childhood diseases, and any long-term hospitalization.

In this way, the original sample size was 50 mothers, all selected by the objective method. The questionnaires were given every weekend, and each time, 20 questionnaires were collected according to inclusion and exclusion criteria. Then, mothers are invited to attend the study on a certain day. On the previous day of showing the film and during phone calls, again we asked mothers about dental treatments. If they were under treatment from the first appointment to the contact for referring, They would be eliminated from the study. Before showing the film, mothers were convinced of answering the questionnaire. Mothers were asked to mark each method in the questionnaire after the end of each show. After showing each method, 1 minute is taken to mark the questionnaire, and then the next method is displayed. It is important that all mothers who participated in this study were literate and had no difficulty to read the questions. Data were analyzed using SPSS software and statistical tests.

Results

56% of the children were boys and 44% were girls, and they were in the age group of 3 to 10 years old and ranked from first to the fifth child in the family. Mothers with a primary to postgraduate education were between the ages of 23 and 50 and had from a child to 5 children. The acceptability of methods for education included Parents'

separation, Voice control, Tell-Do- Show, and general anesthesia.

There was a significant correlation between the acceptance of Tell-Do-Show with the child's order in the family ($p = 0.04$), the age of the child ($p = 0.03$) and the number of children in the family ($p = 0.01$), so that each These variables would increase the adoption rate of mothers through this method. Also, there was a significant correlation between the acceptance of general anesthesia with child's order ($p = 0.01$) and mother's education ($p = 0.03$), so that increasing child's order lead to the acceptability rate of this method increased by the mothers. An increase in educational degrees of mothers led to a decline in their acceptance of this method.

Table 1: The acceptability of behavioral management methods by mothers

Method	Agree/Disagree	Number	Percentage
Tell-Do-Show	Agree	50	100
	Disagree	0	0
Voice Control	Agree	46	92
	Disagree	4	8
Parental Absence	Agree	25	50
	Disagree	25	50
General Anesthesia	Agree	15	30
	Disagree	35	70

Discussion and conclusion

In the present study, the most frequent was Tell-Do- Show and the general anesthesia was the least accepted method by the mothers. In the study of Kupietzaky, after watching the film, parents preferred conscious sedation (C.S) over General Anesthesia.

Similar to the current study, general anesthesia was the least acceptable method(5). In the study of Abushal and Adenubi, unlike the present study, the most common method which was accepted by mothers was general anesthesia and parental absence was less acceptable than general anesthesia (5).

The difference between the results of this study and other studies could be based on the type of describing various methods to parents and the required time to complete the questionnaire (1). In the cases of Peretz and Zadik, similar to the present study, the questionnaire was filled after observation of each method (6). However, in the study of Havelka et al., the questionnaire was completed after the end of the observation of all methods (7). The mentioned differences in results could be related to a gap between watching the film and filling in the questionnaire. The interference of different methods of behavior management, displayed in the mind of the viewer together, could be associated with aforesaid differences. As a result, the likelihood of a misinterpretation of poll results and its inaccuracy increased.

It may also be more difficult for parents to compare various methods because of a large number of methods which was presented in their study. In overseas studies, in addition to mothers, fathers were also selected as samples (6-10). However, in this study, due to various factors such as the more emotional relationship between mother to child (more realistic), housewives, most of the mothers referred to the dental clinic (their easier collection on a particular day for research), as well as the presence of more mother with a child For dental treatment (compared to fathers), mothers were studied. In addition, in some studies, instead of the two methods for accepting or not accepting,

the VAS criteria were used which were marked from 0 to 100 in a scale ruler. Also, Parents instead of the two options, yes or no, should indicate either the amount of their agreement or disagreement to the range of numbers.

In the present study, the Tell-Do-Show was more than the general anesthesia accepted by mothers. While in the study of Eaton, McTigue, Abushal, and Adenubi and Scott and Garcia-Goodyde study, the general anesthetic method was the most common method which was accepted by mothers. Compared to other studies which parents were from all socioeconomic classes, in the current study, mothers were from the lower and middle classes of the society and maybe because of their inability to pay the expensive cost of general anesthesia and admission to the hospital, they preferred the other method compared to general anesthesia.

In the present study, the second accepted method by mothers was voice control. This result had been seen in Havelka's study(7). On the other hand, in some studies, voice control was the second unacceptable method. In the study of Eaton and McTigue, sound control was the third unacceptable method(1,9). However, in the study of Peretz and Zadiak, voice control was the most accepted methods(6). These differences may be associated with the way in which the method is presented in the film.

In the study of Peretz and Zadeik, there was no significant correlation between acceptance of voice control method by mothers with child's grade (6). In contrast, in the present study, with the increase in child's order, the parents agreed with the use of General Anesthesia. This variety was not evaluated in other studies. In the study of Peretz and Zadik, and the study of Lawrence and MC Tigue, there was no significant statistical relationship between the acceptance of the voice control method by mothers and the number of children in the family (6,10). In this study, mothers with higher education level express more disagreement with the general anesthesia method. On the other hand, in other studies, there was no significant relationship between the acceptance of general anesthesia by parents and their education level (1,8,10). Overall, Tell-Do-Show was the most and the Voice control was the second accepted method by mothers. Therefore, the first method in the treatment of uncooperative children could be parents' separation. Regarding the low acceptance of general anesthesia by parents, it seems that it can be done with a little delay in creating suitable facilities for general anesthesia in a private dental clinic. Patients, referring to the nearest equipped center, also turn to this treatment.

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