

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 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 group could effectively treat the child and induce a positive attitude toward dentistry. Objective: To determine the acceptability of behavioral management methods by mothers referring to a pediatric dental clinic in Tehran.

Materials and Methods: This cross-sectional study was conducted in 2017 in a pediatric dental clinic in Tehran. A film containing 4 behaviors (general anesthesia, parental absence, Tell-Do-Show and voice control) were constructed. Before showing each method, a brief explanation was given by the pediatric dentist about the nature and purpose of each method. A total of 50 mothers, referred to this private dental clinic, completed a questionnaire after observing any method in this film. Data were analyzed by t-test and Chi-square

Results: 56% of the children studied were boys and 44% were girls and were in the age group of 3 to 10 years old and ranked first to fifth in the family. Mothers with a primary to postgraduate education were between the ages of 23-50 and had 1 to 5 children. The accept of Tell-Do-Show by mothers was 100%, the voice control method was 92%, separating the child from parents was 50%, and the general anesthesia method was 30%.

There was a significant correlation between acceptance of voice control method with child's grade, child's age and the number of children, and also between the acceptance of general anesthesia by mothers with mother's education level and child's grade ($p < 0.05$).

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

Key words: behavior management, pediatric patients, pediatric dental clinic

Introduction

The goal of pediatric dentistry is to prevent or resolve dental and oral problems of children. Fortunately, most children easily lead dental visits without any unwanted pressure on themselves or in the dentistry group. However, some children do not cooperate and their dental treatment is impossible without the use of dental control methods. The methods for controlling the behavior of the basic methods and the basis of proper communication between the dental group and the patient is a few years old.

Another important issue is the child's parents, in addition to the child's collaboration and dentistry skills in using behavioral control techniques. Parents play an important role in creating the required skills for the child to cope with stress. Therefore, the treatment of pediatric dentistry in terms of the type of communication is very different from that of adults. The treatment of adults involves direct communication, the relationship between the patient and the dentist. But the treatment of children involves two relationships, which is the relationship among the dentist and child and parent. This type of communication in the pediatric dentistry has created the relationship triangle. 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 acceptability of behavioral management techniques for the pediatric dental patient by mothers referring to a pediatric dental office in Tehran.

53 **Materials and methods**

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55 This cross-sectional study was conducted in 2017 in a pediatric dental office in Tehran. Firstly, a film with
56 the help of a child, using the American Association of Pediatric Dentistry (AAPD), and under the supervision
57 of a pediatric dentist about three ways including parental absence, Tell- Do- show and voice control was
58 made. The film related to general anesthesia was also provided at the hospital and from the child who was
59 undergoing dental treatment. The reason for showing four behavioral management techniques on a child was
60 that the child's face did not affect the adoption of either method by the parent. Before describing each method
61 in the film, a brief explanation was given by the pediatric dentist about the nature and purpose of the
62 procedure. The reason for explaining to the film rather than oral explanation was that the conditions for the
63 screening for all groups were the same. The duration of the screening of each method, along with the
64 explanation, was approximately 3 minutes and the entire movie was 12 minutes. The sequence of displaying
65 methods was: 1- General anesthesia 2- parental absence 3- Tell- Do- show 4. Voice control.

66 An experimental study was carried out on ten mothers who were referred to the patient to evaluate the film
67 and make changes. Following the confirmation of the film, the first section of the questionnaire (information
68 of two graphics) was questioned and completed. The inclusion criteria of the study were the lack of any
69 history of any dental treatment for the child, and the exclusion criteria included single parenting, childhood
70 disease, and any long-term hospitalization.

71 In this way, the original sample size was 50 mothers, all selected by the objective method. The questionnaires
72 were given every weekend, and each time, 20 questionnaires were collected according to inclusion and
73 exclusion criteria. Then, mothers are invited to attend the study on a certain day. On the previous day of
74 showing the movie and during the telephone call, mothers were again asked about dental treatment. They
75 were eliminated from the study if they were under treatment from the first appointment to the contact for a
76 follow-up appointment. Before the movie was displayed, the mothers were convinced of answering the
77 questionnaire. Mothers were asked to mark each method in the questionnaire after the end of each show.
78 After displaying each method, one minute is taken to mark the questionnaire, and the next method is
79 displayed. It is important that all mothers who participated in this study were literate and had no problem to
80 read the questions. Data were analyzed using SPSS software and statistical tests.

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82 **Results**

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84 56% of the children studied were boys and 44% were girls, and they were in the age group of 3 to 10 years
85 old and ranked first to a fifth child in the family. Mothers with a primary to postgraduate education were
86 between the ages of 23 and 50 and had 1 to 5 children. Adoption of methods for education included: Parental
87 absence, Voice control, Tell-Do- Show, and general anesthesia.

88 There was a significant correlation between the acceptance of the tell-do -show method with the child's
89 rating ($p = 0.04$), the age of the child ($p = 0.03$) and the number of children in the family ($p = 0.01$), so that
90 each These variables would increase the adoption rate of mothers through this method. Also, there was a
91 significant correlation between the acceptance of general anesthesia with child's grade ($p = 0.01$) and
92 mother's education ($p = 0.03$), so that by increasing the grade of the child, the adoption rate of this method
93 increased by the mothers. An increase in educational degrees of mothers led to a decline in their acceptance
94 of this method.

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96 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

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100 **Discussion and conclusion**

101 In the present study, the most frequent was Tell-Do- Show and the general anesthesia was the lowest
102 accepted method by the mothers. In the study, Kupitzaki's parents, after observing the film, considered the
103 method of conscious sedation (C.S) to be superior to general anesthesia. As with the current study, general
104 anesthesia was the least acceptable method. In the study of Abuhl and Adnobi, unlike the present study, the
105 most common method which was accepted by mothers was general anesthesia and parental absence was less
106 acceptable than general anesthesia.

107 The difference between the results of this study and other studies could be based on the different methods in
108 these studies and the time to complete the questionnaire. In the cases of Pratz and Zadik, such as the present
109 study, the questionnaire was filled after observation of each method. However, in the study of Havelka et al.,
110 the questionnaire was completed after the end of the observation of all methods. This situation could be
111 related to the time interval between watching the film and filling in the questionnaire and the interference of
112 different methods of behavioral control displayed in the mind of the viewer together, the likelihood of a
113 misinterpretation of the result of the poll increased and its accuracy reduced.

114 It may also be more difficult for parents to compare various methods because of a large number of methods
115 which was presented in their study. In overseas studies, in addition to mothers, fathers were also selected as
116 samples. However, in this study, for reasons such as the more emotional relationship between mother to child
117 (more realistic), housewives, most of the mothers referred to the dental clinic (their easier collection on a
118 particular day for research), as well as the presence of more mother with a child For dental treatment
119 (compared to fathers), mothers were studied. In addition, in some studies, instead of the two methods for
120 accepting or not accepting, the VAS criteria were used which were marked from 0 to 100 in a scale ruler.
121 Also, Parents instead of the two options, yes or no, should indicate either the amount of their agreement or
122 disagreement to the range of numbers.

123 In the present study, the Tell-Do-Show was more than the general anesthesia accepted by mothers. While in
124 the study of Eaton, McTig, Obsohel, and Adenobey and Scott and Garcia-Goodyde study, the general
125 anesthetic method was the most common method which was accepted by mothers. In the current study, the
126 mothers were from the lower and middle classes of the society and maybe because of their inability to pay the
127 expensive cost of general anesthesia and admission to the hospital, they preferred the other method compared
128 to general anesthesia, but in other studies, parents were from all socio-economic classes.

129 In the present study, voice control was the second approach adopted by mothers, which was also found in
130 Hawk's study. While in some studies voice control was the second unacceptable method. In the study of
131 Eaton and McTig, sound control was the third unacceptable method. But in the Feather and Todd study, voice
132 control was the most accepted method. Perhaps these differences are associated with the way in which the
133 method is presented in the film.

134 In the study of Prince and Zadeik, there was no significant correlation between acceptance of voice control
135 method by mothers with child's grade. However, in the present study, with the increase in the grade of the
136 child, parents agreed to use the general anesthetic method. This variety was not evaluated in other studies. No
137 significant statistical relationship was found between the acceptance of the voice control method by parents
138 and the number of children in the family in the study of Pratz and Zadik, and the study of Lawrence and
139 McTig. In this study, mothers with higher education level express more disagreement with the general
140 anesthesia method. While in other studies, there was no significant relationship between the acceptance of
141 general anesthesia by parents and their level of education. In general, Tell-Do-Show method was the most
142 and the Voice control was the second accepted method by mothers. Therefore, it may be possible to separate
143 the child from the mother as the first method of treatment in the treatment of non-cooperative children.

144 Regarding the low acceptance of general anesthetic by parents, it seems that it can be done with a little delay

145 in creating suitable facilities for dentistry under general anesthesia in Tehran, and patients wishing to receive
146 such treatment referred to the nearest equipped center.
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