Parental Acceptance of Behavior Management Techniques for Children With Clefts

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ABSTRACT

Purpose: The purpose of the present study was to assess the acceptance of 4 techniques employed for child behavior management during dental treatment.
Methods: Four hundred caretakers of 4- to 10-year-old children with cleft lip and/or palate presented for dental treatment at the Hospital for Rehabilitation of Craniofacial Anomalies, University of São Paulo, Bauru, São Paulo, Brazil. They were interviewed after explanation and presentation of photographs illustrating the sequence of the following techniques: tell-show-do; voice control; physical restraint; and hand-over-mouth.
Results: The levels of acceptance of the techniques were 98%, 96%, 81%, and 85%, respectively. A large acceptance was observed for all techniques investigated. The caretakers' fear that the techniques might make the child afraid of the dentist was commonly mentioned as nonacceptance for all techniques.
Conclusions: It was concluded that it is important for pediatric dentistry professionals to inform parents about each technique's objectives before application to avoid possible misunderstandings and to foster a trusting relationship between the child, the parents, and the dentist. (J Dent Child 2005;72:74-77)

KEYWORDS: BEHAVIOR MANAGEMENT, PARENTS ATTITUDES, CHILD BEHAVIOR, CLEFT LIP AND PALATE

Patient compliance is fundamental for allowing pediatric dentistry treatment to be as minimally exhausting as possible for both the professional and the child. Compliance may be achieved when the patient trusts the dentist, which may only be reached and maintained if the child's caretakers also trust the dentist, since adults' opinions have a large influence on children's lives.[1] Massler[2] reported that the child personality is influenced by past experiences and by the family environment where he or she lives.

There are many means for the management and modification of a child's behavior. There is not a single sequence for the treatment of all children in the dental clinic,[1,3,4] and different techniques should be applied according to the needs. Some of them may be misunderstood by the caretakers, however, if they do not receive proper information.[5] Providing caretakers with previous information on behavior management techniques is an important aspect of child dental care.[5-8] Tavares et al[9] reported that there are no rules on this theme in Brazil and suggested following the American Association of Pediatrics guidelines, which recommend obtaining parental or caretaker consent before application of techniques that may be misinterpreted. According to Ramos,[10] in Brazil, the following is considered as ethical infraction: "not providing proper explanation on the purposes, risks, costs, and treatment options," as well as "initiating treatment of underage patients without authorization from their caretakers or legal representatives, except in case of urgency or emergency."

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Reviewing the behavior management techniques, the American Academy of Pediatric Dentistry (AAPD)[7] classified them into 2 groups:

1. basic techniques of behavior management, including:
   a. tell-show-do;
   b. voice control;
   c. nonverbal communication;
   d. positive reinforcement;
   e. distraction;
   f. presence/absence of the parents;
   g. inhalation of nitrous oxide.
2. advanced behavior management techniques, including:
   a. hand-over-mouth;
   b. physical restraint;
   c. sedation;
   d. general anesthesia.

The tell-show-do and voice control techniques are preferred by the dentists, whereas physical restraint and hand-over-mouth techniques are less frequently employed. Approximately 50% of the dentists, however, employed these 2 techniques at least once during their professional lives.[9] According to Barton et al,[11] the hand-over-mouth and physical restraint techniques, when indicated, may be safely employed, because they do not cause trauma and the child seldom remembers their application.

Knowledge on each technique's level of acceptance by the caretakers is recommended to:

1. properly orient them;
2. prevent possible misunderstandings between professionals and caretakers;
3. maintain their trust in the treatment, enabling better outcomes for the child.

Therefore, this study's aim was to assess the level of acceptance of the following techniques employed for child behavior management during dental treatment: (1) tell-show-do (TSD); (2) voice control (VC); (3) physical restraint (PR); and (4) hand-over-mouth (HOM).

METHODS

Four hundred persons were individually interviewed. All subjects were caretakers of 4- to 10-year-old children with cleft lip and/or palate attending the pediatric dentistry clinic of the Hospital for Rehabilitation of Craniofacial Anomalies of the University of São Paulo (HRAC/USP), Bauru, São Paulo, Brazil, for ambulatory dental treatment from May 2002 to August 2003. The subjects were randomly selected, and the only inclusion criterion was that the caretaker should live with the child.

The study was initiated after approval from the Ethics Committee of the HRAC/USP. Before the interview, the caretakers were informed about the objectives of the study and signed an informed consent document agreeing to participate. A photograph album—with pictures of a dentist, a child, and a dental assistant showing a sequence of the TSD, VC, PR, and HOM techniques being performed—was presented to participants. Each technique was individually explained in clear language to the parents. Special emphasis was given to their goals and application, as described by the AAPD,[7] as well as a visual demonstration via clinical photographs showing the sequence of technique application. After explanation of each technique, the subject was asked to give his or her opinion according to the following criteria: (1) accepts; (2) accepts with modifications; and (3) does not accept. In case of the last 2 responses, the aspect that should be changed to make the technique acceptable or the reason for nonacceptance was questioned. The responses "accepts with modifications," however, were regarded as nonacceptance for application of the statistical test, since the suggestion of modification implies the nonacceptance of the technique itself.

The results were calculated in percentages, and a comparison between the techniques was performed using Cochran's test (an extension of McNemar's test).

RESULTS

From the 400 caretakers interviewed, 342 (86%) were females and 58 (15%) were males. Most of the sample consisted of mothers (81%), followed by fathers (14%), grandmothers (4%), aunts (1%), and grandfathers, stepmothers, and uncles (less than 1% each).

Data on the level of acceptance of the 4 techniques evaluated are shown in Table 1. Two reasons mentioned for nonacceptance of the TSD technique were:

1. it might provoke fear;
2. there was no need to provide a previous explanation of the procedures to the child.

The modifications suggested by the caretakers were:

1. fast application of the technique to save time;
2. utilization in older children who would be more capable of understanding it.

Regarding the VC technique, the reason mentioned for nonacceptance was that it might cause fear to the child. The modifications suggested for this technique were: (1) not using the technique; or (2) its application by the parent.

The most commonly mentioned reasons for nonacceptance of the PR technique were: (1) it might induce trauma or fear; (2) appearance of an aggressive technique; and (3) distrust in its effectiveness. The participants suggested postponing the appointment or using pharmacological methods (sedation or general anesthesia).

The suggestions proposed by those who accepted the PR with modifications were:

1. talking to the child for a longer period;
2. applying the technique in the presence of the caretaker;
3. utilizing it only in urgent treatments.

Table 1. Level of Acceptance of Behavior Management Techniques

Technique*	Accepts	Accepts with modifications	Does not accept
TSD	391 (98%)	2 (1%)	7 (2%)
VC	385 (96%)	10 (3%)	5 (1%)
PR	325 (81%)	14 (4%)	61 (15%)
HOM	339 (85%)	10 (3%)	51 (13%)

TSD=tell-show-do; VC=voice control; PR=physical restraint; HOM=hand-over-mouth.

Concerning the HOM technique, the reasons mentioned for nonacceptance were: (1) it might cause trauma or fear; (2) aspect of an aggressive technique; and (3) distrust in its effectiveness.

The suggestions to replace it were: (1) conversation between the dentist/caretaker and the child; (2) postponing the appointment; or (3) utilization of pharmacological resources.

The modifications suggested were:

1. previous conversation between the child and the caretaker or the dentist, with application of the technique in case the child is still noncompliant;
2. application in the presence of the caretaker.

The levels of acceptance of each technique were compared via Cochran's statistical test, and a statistically significant difference was observed among them. Comparison of the techniques by pairs did not reveal a difference between TSD and VC and between TSD and HOM, even though the latter pair showed a tendency toward statistical significance (P=.063; Table 2).

DISCUSSION

Most subjects in the present study were females, especially mothers, who were the main caretakers of children and who usually accompany their children on customary activities, including dental treatment.

In general, there was a large acceptance of all techniques evaluated in the present study, including those regarded as advanced for child behavior management (Table 1). This may be due to the caretakers' trust in the professionals and the treatment offered at HRAC/USP. The extensive, continuous, and multidisciplinary nature of the rehabilitation process of cleft lip and palate patients should be considered. This establishes an early link between the patient's family and the hospital staff, which includes the pediatric dentist. It also provides a trusting relationship that is necessary and important during rehabilitation.

Tollara et al[12] evaluated maternal behavior toward the dental treatment in early childhood in public and private dental clinics and observed that mothers attending public dental care centers had a higher level of trust and acceptance than those at private clinics. The authors suggested that the differences observed were due to the different social, cultural, and economic aspects of the groups studied. Since the HRAC/USP is a public hospital that mainly serves families of lower socioeconomic level, this influence should be considered, even though it was not investigated in the present study.

Halveka et al[13] considered social status one of the determining factors for parents to accept the behavior techniques, emphasizing the importance of the informed consent.

Providing caretakers with information about these behavior management techniques before they are applied—ideally at the first pediatric dentistry appointment—can also help ensure their acceptance. The importance of providing this information, which can also properly prepare 4- to 10-year-old children for dental treatment, is widely reinforced in the literature.[5-8,13] Brandes et al,[14] however, observed that sharing information on the techniques does not enhance their acceptance.

Brazilian parents are similar to parents of other nationalities because they also need to trust their pediatric dentist, which is usually related to the way the professional manages the child during the treatment. Therefore, it is fundamental to provide a previous explanation on the techniques to be used with the children. Once they trust the team responsible for their child's rehabilitation, parents of children with cleft also need this explanation. Furthermore, the pediatric dentist, as part of this team, must be aware of their need.

Even though the 4 methods evaluated displayed a high level of acceptance, the statistically significant differences found between basic and advanced behavior management techniques (TSD vs PR; VC vs PR; VC vs HOM) demonstrated that HOM and PR are the least accepted. The dental literature[8,13,15,16] shows that the technique most accepted by parents or caretakers is TSD, whereas HOM had a low level of acceptance. This rejection may be related to the possible psychological effects on the child and to the legal aspects of its application. It may also be observed that comparison of the acceptance between TSD and HOM techniques demonstrated a tendency (P=.063) toward a higher acceptance of TSD (Table 2).

Analyzing the reasons for rejecting the 4 methods by means of the caretakers' answers revealed that the main cause was the possibility of inducing fear or trauma to the child. As for PR and HOM, the caretakers' opinion that they seem to be aggressive techniques should be considered. These aspects reinforce the need to provide previous and detailed explanations to caretakers, so that they may feel more comfortable in case such procedures are required.

Concerning the proposed suggestions for and modifications to the techniques, it was observed that the VC method would only be accepted if applied by the parent and not the dentist. Excluding the operator in the application of physical restraint—which was considered more acceptable if applied by the dental assistant—has also been reported by Murphy et al[16] and Fields et al.[17]

Even though the present study has not related application of the techniques to some type of dental treatment, it was observed that some caretakers would agree with the PR restraint technique in cases of urgent treatment. Brandes et al[14] and Fields et al[17] reported that parental acceptance of the different child behavior management methods was related to the types of dental procedures accomplished.

Table 2. Cochran's Test (an Extension of McNemar's Test)

Techniques*	P
TSD vs VC vs PR vs HOM	.000
TSD vs VC	.119†
TSD vs PR	.002
TSD vs HOM	.063†
VC vs PR	.000
VC vs HOM	.023
PR vs HOM	.000

***TSD=tell-show-do; VC=voice control; PR=physical restraint; HOM=hand-over-mouth.**
†P>.05.

CONCLUSIONS

This study's results demonstrated wide acceptance of the 4 behavior management techniques evaluated by the caretakers. Despite this observation, it is important for pediatric dentistry professionals to inform parents about each technique's objectives before application to avoid possible misunderstandings and to foster a trusting relationship between the child, the parents, and the dentist.

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