

# Acceptance of Different Behaviour Management Techniques used in Pediatric Dentistry by Parents

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## 1. Introduction

'Behaviour Management' as the name suggests is a practice of inculcating positive behaviour in the children regarding the treatment they are receiving. The various techniques of behaviour management are directed at altering the behaviour of the child, thus, helping to build a positive relationship between child, parent and doctor, hence maintaining a good relation between each other and harbouring a positive dental attitude in the child. In recent times there has been a major change in the approach towards children while providing paediatric dental care. But still many dental professionals face major hurdles during the treatment of child patient because of the different behavioural patterns encountered in the clinic. Majority of the dentists have been slower in incorporating child friendly approaches into dental care, although slowly many changes are being seen in recent times. All child patients differ in two major aspects i.e. capacity and perception [1]. Some children have zero capacity while others have a great deal of it. Perception is another important component in managing the child's behaviour as different children have different way of perceiving the situation they are in. Some of these behaviour management techniques aren't equally acceptable to all the parents. What might be acceptable to one might be unacceptable to another. The acceptability of behaviour management techniques depends on the treatment needs of the child and its urgency and treatment type which influence the type of management techniques to be used and their acceptance by the parents [2]. With the evolution of the society the parental attitude have been changing too, so it is necessary to regularly assess the parental beliefs and update our understanding of the parental attitude towards behaviour management techniques [3]. Therefore, the aim of this study was to assess the parents' acceptance towards the behavior management techniques commonly used in the pediatric dentistry.

## 2. Material and Methods

The study was designed as a cross-sectional study to evaluate the parental participation in accepting behaviour management techniques for their child's oral care. The study was conducted in the outpatient department of our hospital. Informed consent was obtained from the parents after outlining the goal of the study.

### Participant Selection

A total of 100 parents (age 20 to 40 years) accompanying their children (age 3 to 6 years) to the outpatient department were invited to participate in the study. The method to

explain about various techniques used was a Power Point presentation and a questionnaire was filled afterwards. The questionnaire was explained in the local language also. Socio-demographic variables were assessed, e.g. education, socio-economic status, etc.

Attitude toward the following behaviour management techniques were examined.

- 1) Voice control
- 2) Tell-Show-Do
- 3) Positive reinforcement
- 4) Mouth prop
- 5) Modelling
- 6) HOME
- 7) Physical restraint
- 8) Oral premedication
- 9) N2O-O2 sedation
- 10) General anesthesia.

Each of the behavior management techniques used in this study has been approved by the American Academy of Pediatric Dentistry (AAPD). According to the AAPD guidelines of behavior management techniques, the techniques were divided into two broad categories: (1) Basic behavior management and (2) Advanced behavior management. Various behavior management techniques were explained to parents through Power-Point presentation individually. Parents were asked to arrange various behavior management techniques from most accepted technique to least accepted technique, according to their view. Parents were requested to rate the techniques using Visual Analog Scale (VAS), which has been widely used in behavioral and neurophysiological disciplines. VAS is a 100-mm horizontal line with words "completely acceptable" and "completely unacceptable" at the left and right ends of the line. The words "completely acceptable" and "completely unacceptable" were illustrated by using images - green-colored (happy) face and red-colored (glum) face - at the left and right ends of the VAS to facilitate easy understanding of the scale. Anchor points depicted by coffee cups with different volumes of the liquid at respective places were incorporated at regular intervals of 25 mm for accurate marking of the perceptions. The subjects were asked to mark their opinion using a vertical mark that crossed the horizontal reference line. Following each technique, 10 sec were allotted for the subjects to rate the technique using VAS, as well as to express their consent to use the technique with "their" child if deemed essential during the dental procedure. The most acceptable rating possible was 1 and the least acceptable rating possible was 99. The ratings on the scale were considered acceptable/unacceptable

depending on their position relative to 50. A score below 50 was considered acceptable; the lower the score more acceptable was the technique, and vice versa (Figure 1).



Figure 1: Visual Analogue Signal

### 3. Results

All parents invited to participate agreed to complete the questionnaires (100% compliance). Among 100 children, 60 children (N = 60%) ranged in the age from 2 – 4 years and 40 children (N = 40%) ranged in the age from 4 – 6 years. Among 100 parents, 64 (N = 64%) parents ranged in the age from 20 to 30 years and 36 (N = 36%) parents ranged in the age from 30 to 40 years. Description of demographic variables is shown in Table 1. In the present study population, the most preferred behavior management technique was Tell-Show-Do (86%) followed by positive reinforcement (76%) and the least preferred behavior management technique was HOME followed by voice control and physical restraint (Table 2).

Table 1: Distribution of socio-demographic variables for the study

Socio-demographic Variables	N	%
Gender		
Male	64	64.0%
Female	36	36.0%
Socioeconomic Status		
High	38	38.0%
Medium	32	32.0%
Low	30	30.0%
Education		
No education	-	-
below high school	06	60%
High school	50	50.0%
Degree	44	44.0%

Table 2: Ranking and acceptability of each technique

Technique	Rank	Acceptability in %
Tell Show Do	1	86.0
Positive Reinforcement	2	76.0
Modelling	3	76.0
General Anaesthesia	4	56.0
Sedation	5	44.0
Mouth Props	6	42.0
Oral Premedication	7	40.0
Voice Control	8	28.0
Physical Restraints	9	26.0
Hand Over Mouth	10	24.0

### 4. Discussion

In the last several decades, the acceptability of various behaviour management techniques have changed with pharmacological techniques like sedation and general anesthesia getting better acceptance than previously described. It is interesting to note that the acceptability of some techniques has changed, while the acceptability of other techniques has remained more constant over time.

Examining the results, oral premedication (sedation) and general anesthesia were ranked the lowest acceptable techniques in 1984 and 1991 [1]. However, acceptability for both pharmacologic methods increased in subsequent studies from 2005 till 2015. Now it is quite interesting to speculate the reasons of this paradigm shift towards pharmacological methods. Changing attitudes toward acceptability of behavior management techniques may be attributed to changes in parenting styles over the past years. A recent study reported parents are more overprotective and less likely to set limits on children's behavior. As a result, there may be a shift towards more pharmacologic behavior management techniques. Furthermore, there has been a significant increase in the number of outpatient surgical centers and outpatient surgeries, due to simpler and safer procedures; thereby, increasing parental accessibility and familiarity with outpatient general anesthesia. Apart from this, increased use of the internet for information and the trend of medical television shows may have increased exposure and awareness of both general anesthesia and oral premedication (sedation). Changes in medications, with increased safety profiles and efficacy, used for oral premedication (sedation) over the years may also contribute to the rising acceptability. Overall, parents may perceive oral premedication (sedation) and general anesthesia to be less risky, more cost-effective, more comfortable for their children than in the past. Most parents in the present study preferred Tell – Show – Do followed by Positive reinforcement to be employed on their children. These findings were consistent with a previous study, in which the most preferred techniques were Tell-Show-Do, Positive reinforcement and Distraction. Findings were also consistent with previous study, which found that most parents preferred an explanation as proper approach for treating their children. Most parents in the present study did not prefer HOME followed by physical restraint and voice control. These findings were consistent with another study which found physical restraint technique unacceptable by parents, however, the parents accepted GA in emergency dental situations. The acceptance of general anesthesia and sedation has shown an increase in the present study when compared other studies conducted on Indian populations [5]. In the present study, parents received explanations on the various behavior management techniques intended to be used by the dentists involved in the research, what may be the reason why parents showed general acceptability toward various behavior management techniques. This finding is consistent with the finding of the studies conducted previously. The most significant outcome of the study was the increased acceptance of pharmacologic behaviour management techniques.

### 5. Conclusion

The changing trends in parenting styles have influenced the acceptance of behaviour management techniques in pediatric dentistry. In our study, tell-show-do technique was the most accepted behavior technique and HOME the least accepted behavior technique. Parents seem to be more acceptable to pharmacologic methods than in previous studies.

## References

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