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Review: The Way To Approach A Pediatric Patient By Using Nonpharmacological Behaviour Management Techniques

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Abstract: *Behaviour management is a key factor in providing dental care for children. If the child's behavior in dental office is not managed then it is difficult, if not impossible to carry out any needed dental care. It is the responsibility of the dental practitioner to provide best treatment to child patient by gaining patient's cooperation. Different behaviour management techniques are available nowadays to manage the troublesome child. Determinants that influence the development of behavioral strategy for a young patient include disease status, child's physical and mental development, parental characteristics and provider personality and capabilities. Different techniques used including- supportive office environment, "tell-show-do", successive approximation, distraction and behaviour shaping must be matched to the characteristics of each child. Current cultural trends suggest that disciplinary forms of behaviour management techniques- such as hand-over-mouth, physical restraints and even voice control- are losing social acceptance.*

Key Words: *Behaviour, Anxiety, Communication*

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I. Introduction

Behaviour management of the pediatric patient is the most important part of pediatric dental practice by which the treatment of young patient can be completed in the shortest possible period by insuring that he/she will return for the next appointment willingly. But if the child's behaviour is not managed then it is difficult to carry out any dental care, which is needed. For such child, behaviour management techniques are used as substitute or addition to communicative management. Behaviour management methods concern communication and education. The dentist must establish the relationship based on trust with the child and the parent to ensure delivery of good dental care. A wide variety of behaviour management techniques are available namely: Tell show do, desensitization, modeling, positive reinforcement, voice control, distraction, parental presence or absence, non verbal communication, hand over mouth and protective stabilization. However no one method will be applicable in all situations, rather the appropriate management techniques should be chosen based on individual child's requirements. The main aim of this review is to suggest some strategies or techniques that will allow the practitioner to give the best possible dental care to the young children.

II. Children With Dental Anxiety

Dental anxiety is a reaction to unknown danger. Anxiety is extremely common, especially when treatment never experienced before is proposed. Common anxieties among kids include fearing the mysterious and being worried regarding a lack of manage both of which can happen with dental assessment and treatment. The capability of a child to deal with dental procedures depends upon his/her phase of development. Children could be supportive, potentially cooperative (not having the ability to cooperate). Precooperative children include very young and those with disabilities due to which cooperation may not be accomplished.

III. Factors Affecting Child's Anxiety

Anxiety is recognized personality trait, but there are some factors which can increase the likelihood of anxiety related behaviour.

1) Medical and dental experience: Children, who had negative experiences related to previous hospital visits or dental visits or medical treatment could be more anxious about the dental treatment. So it is important for the dentist to take previous medical and dental history. When taking history, dentist should enquire the

parents about previous treatment and the child's reaction to them as this may allude to possible anxiety related behaviour and permit the dentist to adopt suitable behaviour management techniques.[1]

2) Parental anxiety: Parental anxiety had a major influence on their child's behaviour. An anxious or afraid parent may influence the child's behaviour pessimistically. So the parents should be educated prior to the child's first dental visit. A relationship between maternal anxiety and difficulties in child patient management at all ages has been shown[2-8] and is particularly important for children less than four years old.[3,4] The relationship between maternal /paternal anxiety and child's anxiety is, however, not apparent in all cultures.[9]
3) Parental styles: Parenting styles have changed in recent decades. Therefore dentists should take into account the effects of different parenting styles while treating the anxious child. Where the parenting styles appear to be detrimental to behaviour management, consideration might be given in an alternative accompanying adult whose parenting style is helpful.
4) Parental presence: Research suggests that children's behaviour is unaffected by parental presence or absence.[10-15] The exception to this is young children (less than 4 years) who behave better with their mother's presence. Parent should be passive but silent helper as this may provide a comforting presence without unhelpful interference.[10] It is essential that individual practitioners explain their practice policies on parental presence to parents at the initial appointment.[15]
5) Child's awareness of dental problem: Children who know they have a dental problem are more likely to exhibit anxiety related behaviour at their first dental appointment.[3,4] Therefore, dentist should take into account that child presenting with a dental problem may be less cooperative than a child without dental problem.
6) Behaviour of dental team: The entire team has an active task to play. Previous poor relationship with dental staff has been reported by parents of anxious children which may, in turn be potential cause of dental anxiety.[8] So the dental team should have a positive relationship with child patient and their guardians.

IV. Behaviour Management Techniques

There are a number of non-pharmacological techniques that aim to help manage child patient behaviour. Some methods aim to improve the communication process, while others are intended to eliminate inappropriate behaviour or reduce anxiety. Some techniques are acceptable while others are controversial and are not employed now by some pediatric dentists or accepted by some parts of the society. According to this review behaviour management techniques are divided into 2 parts:-

7) Techniques that are universally accepted and widely used
8) Those that are controversial, not widely accepted but still used successfully by some practitioners such as HOME &restraints.

PARENT CONSENT

Parental consent should be obtained for all the management techniques. Techniques that are used to discourage inappropriate behaviour such as verbal punishment, voice control or restraint, should be discussed with parents first.[16]

TECHNIQUES FOR BEHAVIOUR MANAGEMENT

9) **Pre-appointment behaviour management**: Behaviour management starts before the patient enters the dental clinic for the first visit. This technique involves the strategies that have been used to decrease parental anxiety such as pre-appointment letters describing the practitioner's treatment style, the outline of first visit procedures and give advice on preparing the child.
10) **Communication:** Communication is the mechanism by which the dentist conveys the nature of the relationship with parents and child, the expectations of all parties, and the parameters in which all will operate.[17]

a) Verbal communication: includes words of affirmation, given to the patient from the doctor, assistant and the receptionist. Also explanations about potential behaviour management can be given to a parent convey information, multiple targets may be used. For example- affirmation can be given to child for good behaviour by telling the assistant or parents how well the child id doing.

b) Nonverbal communication: Such communication includes having a child friendly environment and a happy smiling team.[18] This form of communication occurs continuously and may reinforce or contradict verbal signs. Reassurance has been shown to be ineffective or as a method of controlling distress. In contrast, reinforcement, i.e. enquiring how the child is feeling or gentle pats and squeezes has been found to minimize the distress.[19] These nonverbal cues and signs are used to give positive encouragement and enhance other management techniques.

3) **Voice control:** Young children often respond to tone of voice rather than the actual words.[18] Voice control techniques use a controlled alteration of voice, volume, tone or pace to influence and direct a patient's behaviour. This technique is specified for uncooperative or distracted patient to gain attention as well as to establish authority. It is not used among children who due to age, disability or emotional immaturity are unable to cooperate. Once the desired behaviour is achieved, it should be positively reinforced.

4) **Tell-Show-Do:** This technique is widely used to familiarize a patient with a new procedure.[20] This method involves introducing a child patient to a procedure in a stepwise manner. The "tell" phase involves an age appropriate explanation of the procedure. The "show" phase involves demonstration of the procedure, for example demonstrating with a slow handpiece on a finger. The "do" phase involves completion of a procedure immediately without any delay.

When using this technique, the language should be appropriate to the child's age specifically, emotive or negative words are avoided. When acceptance has been obtained, the child's behaviour can be rewarded and then becomes a part of behaviour shaping.[16]

Objectives:

. To allow the child to learn about and understand dental procedures in a way that minimizes anxiety.

This technique is useful for all patients who can communicate. There are no contradictions.

5) **Enhancing control:** Here the patient is given a degree of control over dentists' behaviour through the use of stop signal. Such signals has been shown to reduce pain during the routine dental treatment[21] and during injection.[22] The 'stop signal' is usually raising an arm, which should be rehearsed and the dentist should respond quickly when it is used. There are no contradictions and this technique can be used to all patients who can communicate.

6) **Modeling:** Modeling is based on psychological principle that children learn about their environment by observing the behaviour of others. This can be achieved by using a model either live[23,24] or by videos[25,26] who exhibit appropriate behaviour in dental environment. It is particularly effective when the observer is paying attention to the model and the model is perceived to be of similar status and sex as him or himself.[16] For best effects the age of model should be same as that of target child, should exhibit appropriate behaviour and be praised. They should also be shown entering and leaving the surgery.[27] This technique may decrease the target child's anxiety by showing a positive outcome following a procedure that the target child requires themselves and will also illustrate the rewards for appropriate behaviour.

This technique is useful for all the patients.

11) **Behaviour shaping and positive reinforcement:** Behaviour shaping and behaviour modification is the most commonly used non pharmacological method for the children who are developmentally mature enough to behave. This procedure involves definite series of steps towards ideal behaviour. This is most commonly achieved by selective reinforcement. Reinforcement is the strengthening of a pattern of behaviour being displayed again in the future.[28] Whatever thing that child finds enjoyable or satisfying can act as a positive reinforce such as stickers and badges at the end of successful appointment. The most powerful reinforcers are social stimuli such as facial expressions, positive voice modulation, verbal praise and approval by hugging.

12) A child centered, empathic response giving specific praise, for example, "I like the way you keep your mouth open" has been shown to be more effective than general comment as "Good such girl".[29] This technique is useful for all the patients who can communicate.
13) **Negative reinforcement:** Negative reinforcement is the strengthening of the pattern of behaviour by removal of a stimulus which the individual perceives as unpleasant (negative reinforcer) as soon as required behaviour is exhibited. However, this should not be confused with punishment, which is the application of an unpleasant stimulus to inappropriate behaviour.
14) A well known example of negative reinforcement is selective exclusion of the parent. When inappropriate behaviour is exhibited, the parent is asked to return, thus reinforcing the behaviour.[11] For this technique, informed consent must be obtained from the parent and the parent should be able to hear, but be out of sight of child.
15) **Distraction:** Distraction is the approach in which the attention of the patient is shifted from the dental setting to some other situation or away from the treatment procedure. This could be in the form of cartoons, books, stories, music. Audio distraction, however proven effective for the adults, has been shown to have variable success in children.[30-33] Short term distractions such as pull the cheek or lip and chatting to the patient when applying local anesthesia, are also useful.
16) **Systematic desensitization:** Systematic desensitization is a technique in which specific fears or phobias of the child are overcome by repetitive contacts. During dental treatment, fears are usually related to specific procedures such as use of local anesthetic. The child's existing anxieties are dealt with by revealing him or her to a series of dental experiences in an order of increasing anxiety suggestion and then only progressing to the next when they feel able.
17) For true phobias several relaxation sessions with a psychologist or dentist who has received the training in relaxation or hypnosis technique may be required. This technique is useful for the child who can clearly identify their fears and who can verbally communicate.
18) **Positive stabilization:** This technique involves limiting the patient's movements to decrease this risk of injury to everybody while allowing safe conclusion of the treatment. Informed consent must be obtained about the use of protective stabilization from the family member or caretaker. If a family member has a problem at any time to the use of protective stabilization, the technique should be stopped immediately. Varieties of protective stabilization can be engaged ranging from family member/care taker holding the kid's hands to the utilization of stabilization tools (for example: papoose board, pedo wrap).
19) **Hand Over Mouth (HOM):** HOM involves restraining the child in dental chair, placing a hand over mouth (to allow the child to hear). The nose of the child must not be covered. Then, the dentist talks quietly to the child by explaining that hand will be removed as soon as the crying stops. As soon as this happens, the hand is removed from the mouth and the child is praised.[34] The technique aims to gain the child's attention and enable communication, reinforce good behaviour and establish that avoidance is futile. Those who advocate the technique recommend it for children aged 4-9 years when communication is lost or during temper tantrums. Parental consent is important and the technique should never be used on children too young to understand or with intellectual or emotional impairment.[35-37]
20) However, this technique is controversial. Its legality (with regard to restraint and individual rights) has also been questioned.

V. Conclusion

21) A wide variety of behaviour management techniques are available to the pediatric dentist. No one technique will be applicable in all situations rather the appropriate management technique should be chosen based on the individual child's requirements and the individual dentist's experience. Practitioner must take into account cultural, philosophical and legal requirements in the country of dental practice of every dentist concerned with dental care of children, solely for the benefit of child.

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