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Behaviour Management Strategies In Treating Children With Dental Fear

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Abstract
Anxiety and fear remain the primary emotion of a child entering a dental office. It is natural to have a fear of the unknown and this fear can show itself as misbehavior in the dental office. Successful dentistry depends not only on the dentist's technical skills, but also on his ability to acquire and maintain a child's cooperation. One's goal is to have the child be comfortable during dental treatment. Another is to provide the optimum in dental treatment safely and easily for the patient. Still another is to encourage the child to continue regular dental visits in the future.[1] It is more important to focus on a positive interaction between dentist and child rather than the completion of the dental procedure .This paper describes the various behavior management techniques like the tell-show-do, reinforcements, voice control, and hand over mouth exercise that, from a behavioral science perspective, offer promise for dentists managing disruptive children also it presents an overview of behavioural management techniques in the dental situation, and to prepare guidelines for the treatment of dentally fearful children, focusing on the behavioural management approach.

Key Words
Behavior management , Anxiety, Fear, Needle phobia

Introduction

It has been said that the major difference between adult and pediatric dental patients is that the latter did not request the treatment and frequently they do not even understand why they are at the dentist's office! Essentially, from many children's perspective, a dentist has little to offer to them except short-term pain and long-term gain, the latter being a difficult concept for many a young mind to grasp. Children frequently display behaviors that make traditional dental care delivery a challenge. It becomes the job of the dental practitioner, therefore, to understand the unique issues at stake and to make these patients and often their parents too, feel at ease. Behavior management is as fundamental to the successful treatment of children as are handpiece skills and knowledge of dental materials.[2] Disruptive behavior can interfere significantly with providing quality dental care, resulting in increased delivery time and risk of injury to the child.[3] These difficulties have lead to the development of a well established child behavior management armamentarium for dentists.

Is it necessary to let patient cry throughout the treatment…? Or post the patient to general anesthesia….?!!

Children have relatively limited communication skills and are less able to express their fears and anxieties. Their behaviour is essentially a reflection of their inability to cope with their anxiety. When children cannot cope, they attempt to escape the impending event. The subsequent change in behaviour seen is often a manifestation of anxiety or discomfort in a child who has no other way to cope or of informing you of their difficulty. Children often have anxiety when they experience something new.

Behaviour management aims to give children appropriate coping strategies. The goals of behavior management in dentistry are to establish effective communication, to alleviate patient fear and anxiety and build a trusting relationship with the child that will ultimately allow the dentist to deliver quality dental care and promote in the child a positive attitude towards dental care and oral health. If they had a bad experience or are very nervous, our goal is to help them overcome this and help them realize that they can do it ! so start with "baby steps" until you gain the trust of the child.

- Often the first potential source of conflict to be encountered is whether to allow the parents to accompany a child into the dental operatory. There is currently no real consensus regarding parental presence in the operatory, however it is agreed that it may sometimes be effective in gaining cooperation for treatment.[4] Children vary in their response to their parents presence or absence ranging from very positive to highly detrimental. Occasionally the presence of a parent has a negative effect on the necessary communication between the child and the dentist. It is difficult to manage the combination of a 'demanding child and an anxious parent without separation. The separation should take place as comfortably as possible. Therefore, it needs to be explained in a professional manner to the parent prior to the treatment and the parent must willingly agree to it.
- Another important detterent to seeking dental care is "needle phobia ".Why are children scared of injections ? Often, parents threaten a child by saying something like" because you don't brush your teeth properly or because you eat too many chocolates, doctor will give you an injection."Commonly stated fears reported by children regarding the

dental experience can be either - Real - such as those based on a previous negative experience; acquired fears such as needle (pain); Potential fear responses- include those that may be induced by the emotional state of dentist or assistant, or Protective fears - such as fear of the unknown, fear of bodily harm, of a stranger or of separation from the parent.[4] While treating children, we must realize that we are behavior therapists and not merely dentists. We must believe that if we use child management methods properly, 85-90% children can cooperate for all dental procedures (many of them enjoy them, too !

Basic Behavior Guidance Techniques

Behavior shaping means providing the child with cues and reinforcements that direct them toward more desirable behaviors.

Creating a positive first impression

The manner in which a child is welcomed into the dental office may influence his/her future behaviour during treatment. Communication starts before a word is said and the first few minutes of an encounter are vital as it is difficult to alter a first impression. Smile, eye contact are key factors in it.

Traditional behavior shaping strategies effective in the dental office include:

Tell-Show-So (TSD)

Tell-show-do is the first technique learned by many dental professionals in dental school. An advantage of this method is that, with appropriate use of language and technical terminology, it can be used with children of all ages and comprehension abilities.[4] The dentist explains to the child what is to be done using simple terminology and repetition and then shows the child what is to be done by demonstrating with instruments on a model or the child's or dentist's finger. Then the procedure is performed exactly as described. Praise is used to reinforce cooperative behavior.[5] As the name suggests, it involves:

1. Tell: the dentist explaining to you what they'd like to do. i.e.clean the soft part of the tooth away" (not "drill the tooth")."whistle" (not drill), "make your tooth sleepy" (not give a needle, shot, or injection).

2. Show: showing you what is involved (e. g. showing the equipment and demonstrating it on a finger)

3. Do: performing the procedure

Modeling

Children are great copycats. An extension of Tell-show-do is behavior modeling, using the ability of the child to imitate others modeling the desired behaviors.[3] The modeling technique pairs a timid child in dental treatment with a cooperative child, sometimes a sibling. They quickly learn that what the other child is doing is easy! Permitting children to observe other children adaptively undergoing dental treatment is an effective way of preparing them to accept treatment and to demonstrate what is expected of them.[6] Simply being observed by peers during dental procedures was sufficient to decrease levels of disruptive behavior. The researchers felt that these children were more cooperative because being observed by the next patient placed them in the role of a coping model. An important advantage of live modeling is that no additional equipment, personnel, or alterations in the dental routine are required.[7]

Distraction

Distraction is a powerful tool when it comes to dealing with phobias. It involves diverting the patient's attention from what would be perceived as an unpleasant dental procedure in order to avert or delay negative or avoidance behavior. e.g. listen to music via earphones. Distraction is thought to gain control over an aspect of the patient's capability to respond (i.e.,paying attention) that is incompatible with disruptive behavior.[8]

Reduction in anxiety can be attributed to two reasons. First, a child listening to music will tend to close his eyes to concentrate on audio presentation thereby screening out the sight of dental treatment[9]. Second the sound of music will eliminate unpleasant dental sound like sound of handpiece . and these two advantages coupled with the effect of music will provide relaxation and allow the dentist to effectively manage the anxious patient.[10]

Voice Control

The modification of the intensity or pitch one's voice dominates the interaction between the pediatric dentist and the child. The tone of voice can change from gentle to firm. To show the child that this is a serious matter.

Contingent Escape

Dentists have long recognized that giving children a sense of trust and control is an important strategy in coping with dental procedures. Using nonverbal communication techniques (e.g., raising a hand) to allow child to stop treatment when they experience discomfort is one way that dentists have allowed children to gain that trust and instill a sense of control.[11]

A key component of all of these behavior guidance techniques is immediate positive reinforcement, both verbal (praise - e. g. "You're doing great", "That's good") and non-verbal (smiles, nods, appropriate physical demonstrations of affection) where the child is given positive feedback when they are exhibiting appropriate behaviors. It is very important that even with the extremely anxious, disruptive and uncooperative child, that any positive behavior is immediately rewarded. Two factors are considered very important in use of this technique:

1. The reward is most effective when it comes directly from dental professional and
2. Use of a reward may provoke additional anxiety in some patients (i.e. patient concludes the reward must follow an unpleasant activity!)

Advanced Behavior Management

Not all undesirable behaviors in children can be so easily modified however. For these more extreme patients, advanced behavior management techniques may be required to bring about compliant behaviors. Only if the child is uncooperative after above mentioned methods have been attempted, the need for advanced behavior arises.

These advanced methodologies can be divided into the following areas:

1. Physical Management
2. Aversive Management
3. Pharmacological Management

Techniques that fall within the first two areas require training and practice to be used safely and to maximum effect while most that fall under "Pharmacological management" should only be practiced after appropriate advanced instruction and in accordance with relevant state licensure practices.[3]

1.Physical Management

It might sound crazy or overboard, but some children require physical restraint to ensure that the dentist can carry out their jobs safely and effectively. This is the last resort used for handling uncooperative children or handicapped children. It involves the restriction of movement of the child's head, hands, feet or body.

The physical restraining force may be of human origin (so-called "active" restraint where the hands of a parent or dental assistant are used to restrain the child) or provided by mechanical adjuncts ("passive" restraint such as the use of a Papoose board, Pedi-Wrap or a combination thereof. Before any use of active or passive restraint, it is vital to obtain and document in the patient's record the informed consent of a parent.[4]

2. Aversive Techniques in Behavior Management

This area includes the use of both voice control and time-out, but it is probably most clearly represented by the "Hand-over-mouth" (HOM) technique. The purpose of the Home technique is to gain the attention of a child so that communication can be achieve . If the child continues the physical resistance, screaming or crying little communication is taking place. The dentist then places the hand over the child's mouth to stifle the noise .At the same time, in close proximity to the patient the dentist says calmly but firmly. Once the patient discontinues resistance, the dentist should remove the hand and reinforced the improved behavior[12]. Hand-over-mouth-excercise (HOME): The disruptive child is told that a hand is to be placed over the child's mouth. When the hand is in place, the dentist speaks directly into the child's ear and tells the child that if the noise stops the hand will be removed. When the noise stops the hand is removed and the child is praised for cooperating. If the noise resumes the hand again is placed on the mouth and the exercise repeated.[5]

INDICATIONS - 3 TO 6 YRS OLD, Healthy child who can understand but who exhibits defiance and hysterical behavior during treatment, a child who can understand simple verbal communication, Children displaying uncontrollable behavior.

Behavior management strategies for pediatric dental patients have evolved greatly over the past two decades, with adverse techniques such as hand-over-mouth exercise and hand-over-mouth with airway restriction having lost considerable popularity.[13]

3. Pharmacological Management

Although most of children can be managed with routine behavioral techniques but few require aggressive (restraint) or pharmacological support. This may include the use of anxiolytic medications, conscious or deep sedation or general anesthesia. Behavioural management and prevention, coupled with local anaesthesia when required, form the foundation of the delivery of pain-free dentistry to children. Although behavioural management may need to be augmented with conscious sedation for some anxious children, pharmacological agents are not substitutes for effective communication and the persuasive ability of the operator. There is certainly no place for invasive and high-risk sedative techniques such as deep sedation or polypharmacy in the dental management of anxious children within paediatric dental care .Indeed, even in parts of the world where deep sedation techniques are more common, their use is often limited to hospitals.[14]

The most commonly used anxiolytic agent for conscious sedation in pediatric dentistry is nitrous oxide (NO) - Rapid onset of action and recovery (5/10mins), easy titration and patient acceptability (more than enteral/parenteral forms of conscious sedation), however it displays only minimal analgesia (so patients will require local anesthesia for painful dental procedures). Nitrous oxide is administrated in a mixture with oxygen (30% or more) to safeguard the patient's oxygen supply.[4]

Behavioral Strategies for the child management and to relieve anxiety in the dental environment

The child must be made comfortable in dental set-up.It should be prime focus of dentist in first few visits of child simple procedures such as consultation and treatment planings. Radiographs fluoride application small restorations etc. can be carried out prior to treatment. A child sitting comfortably is less likely to resist treatment. Following approach will be helpful in smooth completion of treatment , getting adequate patient cooperation and effectively reducing time required in dealing with pediatric patient:

1 Preparation of parent prior to treatment

- A discussion with parents prior to any procedure should help them prepare themselves better for child's dental care.
- Dentists should encourage parents to bring their children to the dentist by age two, or earlier if there is noticeable discoloration of the baby teeth or if the child is signaling pain. The sooner the child is seen, the less likely the child will have extensive dental problems.
- Educate and explain the parent that in initial visits, dental team needs time to assess child cooperation and modify the child behavior so do not insist on completing the treatment in first visit itself .
- Never voice their own fears about dentistry (pain, injections, extraction, blood etc.) in front of child.
- Ask the parents not to feed the child immedietly before bringing him to dentist otherwise child tends to gag.
- Do not promise anything about the nature of treatment and time required for it, just tell them to say that they don't know.
- Report the doctor any past negative experience.

2. Never deny a child's fear. Conduct the first session in a non-dental setting.[15] Use age appropriate behavior modification techniques.
3. Explain the procedure in brief, firm yet friendly manner e.g. local anesthesia as to put the medicine to put the tooth to sleep and tell him it may hurt you as an ant bite for only few seconds.
4. Express concern. Ask the child how she is feeling or whether she is comfortable.
5. Do not ask about past negative experience
6. Praise all cooperative behaviors. Compliment a child who is sitting still and cooperating.
7. Give specific directions. Use direct and specific requests (e.g., "please open your mouth now," "turn this way").
8. Use positive suggestions. Positive suggestions (e.g., "Today we are going to clean your teeth with a magic toothbrush") have been shown to decrease resistant behaviors.
9. Keep cool. Do not show anger in response to a child who is upset.
10. Always use a topical anesthesia prior to injecting local anesthetic.

11. Use the thinnest gauge needle (27-30G for infiltration, 26-27G for blocks.)
12. Do not show the child the syringe while being loaded. If the child sees the needles do not panic, just demonstrate how it works by injecting a few drops on hand.
13. Have an assistant on left side to avoid any sudden unwanted movements during the procedure.
14. Distract the child by continuously talking with him/her during the injection.
15. Once pain control is achieved with adequate anesthesia, it is advisable to carry out maximum work; single visit endodontics etc.
16. Establish a signal which permits the patient to temporarily interrupt the procedure when their anxiety or pain has increased.[15]
17. Remember that all children can be treated using appropriate modality.

Last but not the least, with adult patients waiting outside and having a child in the chair , refusing to open his mouth for treatment, time seems to be more valuable than ever". Child management and time management go hand in hand in dentistry. However, the importance of time management while handling pediatric patient need not to be stressed.[16] Few things can be kept in mind:

- If possible, keep a separate session of pediatric patients in a week for treatment procedure in a busy dental clinic
- Preferably schedule a new child just after a conditioned child and let him observe the cooperative child.
- Use material which takes less time such a resin modified GIC for fillings and prefilled syringes of calcium hydroxide and iodoform for pulpectomy.

Conclusion

One of the most challenging aspects of dental practice is working with the "difficult," challenging, or uncooperative patient. It is during these times that the dentist's clinical and patient management skills are most thoroughly tested. Success requires a personal knowledge of the patient and an understanding of human behavior, development.[2] Proper assessment of children's behavior helps the dentist to plan appointments and render effective and efficient dental treatment. Appropriate use of management techniques can improve the child's behavior in subsequent dental visits. Finally, the most effective communication always reflects the personality of the dental professionals themselves. Use of the management strategies described in this article will increase the likelihood that dental appointments will go smoothly and will ultimately be completed. In dealing with a child with dental anxiety, it is extremely important to complete the treatment. Treatment completion not only has implications for the patient's heath, but will also allow the child to realize that the procedure was not nearly as aversive as had been expected. This sense of mastery will likely enable the child to confront future dental appointments with less anxiety. Given the prevalence of dental anxiety, as well as its implications, it is important to consider a broad range of management strategies that can easily be implemented in the dental setting.[17]

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