

Original Research Article

Management of Fear and Anxiety among Children at the Dental Operatory

Hemalatha R*, Nirmala A, Viswaja

Department of Pediatric and Preventive Dentistry, SRM Dental College, Chennai, India

***Corresponding Author**

Hemalatha R

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Abstract: Children are highly anxious about dental clinical settings and the proceedings, which need good operator skills to be imparted by the Pediatric dentist. This paper presents a review of the various non- pharmacological approaches that can be used to win over the scenario and provide utmost dental care. The management skill sets start from good and effective communication and travels through establishment of efficient rapport building.

Keywords: Childhood dental anxiety, management review, non-pharmacological techniques.

INTRODUCTION

Children encountering dental anxiety have a global occurrence, which is accompanied by avoiding dental visits followed by total dental negligence. Treating such patients can be very challenging to the dentist since they present with behavioral problems also [1,2,4,3]. Such a situation is a threat since it can encompass a stressful environment which is detrimental to both the child and the dentist [6,5,8,7]. The dental treatment also moves from simple to complex ones due to caries progression. Fortunately there are a wide range of non-pharmacological techniques available which can be used appropriately for the intervention needed.

Fear/anxiety/phobia

The above mentioned terminologies move hand in hand though they have conceptual differences existing among them [9-11]. Fear can be defined as an emotional state which is associated with a known danger, anxiety is associated with an unknown danger and Phobia is associated with an exaggerated fear response [12-14].

Dental fear, anxiety or phobia is encountered on various treatment aspects like fear of gagging, choking, fear of injections and numbness, reclined position, drills, noise from hand pieces, rubber dam usage, fear of anesthetics, aversion to the sight or smell of blood and chemicals[15-20].

Behavior shaping has been recommended as a common non-pharmacological technique. It is a form of behavior modification based on the principles of social learning.

Tell –Show-Do (TSD Technique)

Description

It is a method of introducing the child patient to a procedure at the dental operatory in step wise manner [21-24]. It comprises of the Tell- phase wherein the procedures are explained by using euphemisms at the child's level of understanding followed by the Show- phase where the instruments are shown and the Do- phase where the procedure is demonstrated on the patient himself.

OBJECTIVES

- To allow the patient to learn and comprehend by himself in a way that minimizes anxiety.
- It is often accompanied with rewards, to gradually shape the child's behavior towards acceptance of more invasive procedures.

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Indication

In children with pre-existing fear and anxieties during first dental visits

Desensitization

Description

The child's existing anxieties are dealt with by exposing the child to a series of dental experiences, presented in an order of increasing anxiety provoking procedures, progressing to more invasive procedures, only if the child accepts the previous step in a relaxed or phased manner [25-29].

In psycho therapeutic mode, several sessions will be required to alleviate the existing fear and anxiety of an individual, whereas in Pediatric dentistry, an assumed hierarchy is used like examination with the help of a mouth mirror and probe followed by series of radiographic exposures, prophylaxis, fissure sealing, restorations, rubber dam applications and finally the most fearful local anesthetic administration.

Objectives

- To help the child overcome the anxieties
- To expose the child to a graduated series of potential anxiety inducing experiences.

Indication

In children with dental anxiety and phobia.

Modeling

Description

According to social learning theory, a large part of the child's development and learning is based on the child's observation and imitation of the vicarious conditioning of their peers.

Modeling is effective when the observer is paying attention to the model when the model is perceived to be in a similar environment. Ideally for an anxious child the model would also appear to be initially anxious but then proceed to develop a better coping behavior. Modeling can be live/video- taped or filmed. It works for patients who visit the dental clinical setup with high anxious emotions. Models can be parents, other children, siblings or dental assistants.

Objectives

- To reduce anxiety in children
- To introduce a child to dentistry

Indication

To introduce a new procedure during first dental visit

Contingency management

Synonyms-Operant conditioning, Reinforcement

Description

When a behavior that follows a stimulus is reinforced, it is strengthened and is more likely to occur in a similar circumstance. The other part is punishment when the consequence of behavior is unpleasant; it is weakened and less likely to occur in a similar circumstance.

Contingency management is either presentation or withdrawal of the reinforcer, for more likelihood occurrence of the desired behavior.

Objectives

To strengthen the desired behavior, the following types of reinforcers are used

- *Social*- Communicating appreciation after each desired behavior verbally.
- *Material*-Gifts in the form of toys, stickers and badges.
- *Activity*-Involving with the child in playing games or watching television.

The reinforcers are to be used as rewards and not as bribes.

Classification of reinforcements

Positive reinforcement-giving rewards

Negative reinforcement-withdrawing rewards

Indication

For behavior management in children.

Retraining

Children who require retraining approach the dental office displaying apprehension or negative behavior. It may be due to previous dental visit or the effect of an improper parental or peer orientation. Determining the source of the problem is helpful since the undesirable behavior can then be avoided through distraction technique[30-33].

Behavior modification techniques**Audio analgesia**

Audio analgesia or white noise is a method of reducing fear. It consists of providing a good stimulus of good intensity.

Biofeed back

It involves the use of certain instruments to detect physiological parameters that present with fear and anxiety status such as pulse rate, heart rate and blood pressure. The anxiety level is assessed pertaining to the score obtained.

Humor

Humor is recommended as an adjunctive technique.

Voice control

Change in tone and loudness of speech associated with facial expression is used which will reduce the disruptive behavior. It can quickly re-establish a positive behavior and eliminate any undesirable negative behavior.

Hypnosis

It helps to avoid nervousness and apprehension by establishing control on psychosomatic attitude of the child.

Implosion therapy

It employs continuous presentation of stimuli to distract the child from disruptive behavior.

Coping

It employs cognitive and behavioral techniques to master tolerate or reduce stressfull situations at the dental scenario.

Relaxation/distraction

The two techniques can be used alternatively to combat stress.

Aversive conditioning/HOME

It was first described by Evangeline Jordan. It is also referred to as HOME.

Objectives

- The purpose is to gain the attention of a highly oppositional child, so that communication can be established and co-operation obtained.
- To increase the child's confidence level.

Indication

In children between 3-6 years with appropriate communicative abilities

Technique

Dentist places his/her hand over the patients mouth to muffle the noise produced by the child to enable them to listen to the communication.

Contraindication

It should not be employed as a routine and to those having compromised mental capacity.

Variations of HOME

The dentists hand is held over the patients mouth in any of the combinations mentioned

- Airway obstructed/unobstructed
- With/without towel held over mouth
- Dry/wet towel held over mouth

Aversive conditioning is recommended as a safe and effective method of managing children with behavior problems.

CONCLUSION

Though there is a wide array of methods available for usage they cannot be followed all at once but needs a customized approach which may vary patient wise, which deems to need the decision of the Pediatric dentist. The child patients concerns and anxieties have to be understood, identified and addressed in order to emerge as a successful personality to accomplish the mission impossible.

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