



DENTAL ANXIETY IN CHILDREN

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ABSTRACT

Anxiety refers to a feeling of uneasiness and panic. Dental anxiety Is a common issue faced by many children across the globe. Lack of understanding and loss of control makes a child susceptible to dental anxiety. A child can show various symptoms such as panic aggression, hysteria etc before a dental appointment to avoid or delay the treatment. To manage dental anxiety in children, a parent and dentist need to work together as a team and try various pharmacological and non -pharmacological methods to make the dental visit easy and comfortable. It is very important for a child to understand the importance of maintaining good dental hygiene to lead a life of quality which can be established by maintaining a good dentist patient relationship starting from young age.

Keywords: dental, fear, anxiety, children

INTRODUCTION

Dental fear or anxiety refers to the strong negative feelings associated with dental treatment whether or not the criteria for a diagnosis of dental phobia are met.[1]

ODONTOPHOBIA recognized by the WHO refers to the “phobia of the dentists “[2]

Children can start developing dental anxiety around the age of 5 avoiding or delaying dental treatment deteriorating their oral health. These children show an extreme aversion towards visiting the dentist and often display a variety of symptoms ahead of their scheduled dental visit. Different countries reported a prevalence of 5-33% of dental anxiety among children and adolescents.[1][2]

CAUSES OF DENTAL ANXIETY IN CHILDREN

A variety of factors can lead to development of dental anxiety in children.

A traumatic dental visit

A child on his second visit to the dentist Is more susceptible to dental anxiety.A child may associate a general cleaning appointment with discomfort, toothaches, or loud, frightening sounds, rather than the positive effects of clean, healthy teeth.[3][4]

Poor hygiene and additional treatment

It can cause embarrassment or fear of punishment to receive a poor dentist's report, especially when compared with a sibling.[5]

Lack of control

Dental anxiety might arise from feeling helpless when seated in a dental chair. When objects are put in a child's mouth, it can also make them panic.[5]

Lack of understanding

There are many fears that children have about new experiences, and the sounds, sights and smells of a dental office can be intimidating to them. [6]

Loss of personal space

Most of the dental procedures require close proximity with the patient and such invasive nature can intimidate a child increasing dental anxiety.[6]

CONTRIBUTING FACTORS IN CHILDREN WITH DENTAL ANXIETY

AGE

One of the elements that significantly affects children's dental anxiety is thought to be the child's age. It is nearly universally acknowledged in the literature that younger children experience dental anxiety more so than older children do.[7]

NUMBER OF SIBLINGS

The number of siblings and the birth order of the children have a direct relationship with dental anxiety. The first-born kid has a disproportionately greater level of dental anxiety.[8][9]

SOCIO-ECONOMIC STATUS

Children with low socioeconomic status and little formal education typically worry more about getting their teeth cleaned. This may be a result of families with low socioeconomic status and educational attainment having less dental awareness, which raises dental fear.[9]

MOTHER/PARENTAL ANXIETY

Children who observe their parents' dental anxiety or learn about it through their parent's distressing knowledge are more likely to reflect it and adopt a similar outlook, which will lead to the development of dental anxiety.[3]

NUMBER OF DENTISTRY VISITS

As a child develops a positive patient-doctor connection based on trust and understanding, dental anxiety in children decreases with time and visits.[4][5]

CLINICAL SETTINGS

Because of the drilling noise and other anxious youngsters waiting for their turn, it has been observed that longer wait times at the dental office might make a child more apprehensive. Additionally, dental anxiety in children has demonstrated associations with the appearance and gender of the dentist as well as the fragrance of the environment.[9]

SYMPTOMS AND SIGN OF DENTAL ANXIETY IN CHILDREN

The signs and symptoms of dental anxiety manifests as racing heart, palpitation, extreme aggression, throwing tantrums, crying uncontrollably etc. [10]

MANAGEMENT OF DENTAL ANXIETY IN CHILDREN

WHAT CAN PARENTS DO TO HELP?

PARENTAL PRESENCE/ABSENCE

Children who know what to expect in advance can better handle dental procedures, which reduces dental anxiety. Parents can assist with this by explaining what will happen as well as the feelings the kid might feel (specifically, what type of noises he might hear, what type of vibrations he might feel, or what he might taste). Parental presence during the visit can make the child feel more comfortable and safe[11][12]

TELL SHOW DO

The tell-show-do method was created to ease anxious kids' dental anxiety. The tell-show-do method can be thought of as a quick method of desensitisation in which anxiety is decreased by becoming accustomed to the thing that generates it.

Tell: Parents outlining their preferred activities to you

Show: demonstrating to you what is involved, such as by displaying the tools

Do: the dentist can make the child do it on a pretend patient to make the child familiar with the procedure.[13]

RELAXATION TECHNIQUE

Children who are anxious can benefit greatly from relaxation techniques. They aid in reducing the body's physical response to worry or dental phobia. Parents can teach their children to practise deep breathing exercises that involve calm, quiet exhalations after deep inhalations. The child can also begin practicing progressive muscle relaxation, which involves tensing and relaxing a group of muscles while keeping your eyes closed.[14][15]

SYSTEMIC DESENSITIZATION

Systematic desensitisation entails exposing a person who is afraid of something to it gradually while enticing them to utilise relaxation techniques to calm their worries. As systematic desensitisation is revealed, the individual starts to form more reasonable expectations and beliefs about the procedure. The child is more likely to behave moderately rather than aggressively. [16]

POSITIVE REINFORCEMENT

The work of behaviourist psychologist B. F. Skinner is linked to the idea of positive reinforcement. It is his fundamental idea in operant conditioning, which is the introduction of a pleasurable or desired stimulus following a behaviour, such receiving a reward.

A behaviour is more likely to occur again in the future if a favourable outcome (i.e., reinforcement) is given in response to it. On the other hand, a behaviour is less likely to occur again if a negative consequence (i.e., punishment) is given in response to it.

There are four sorts of reinforcements

- Natural reinforcers that come about naturally are those that are a direct result of the behaviour.
- Social reinforcers include showing support for constructive actions.
- Realistic rewards are tangible reinforcers.
- token reinforcers are rewards like points or tokens given for completing specific tasks. These can then be traded for valuable items.[17][18]

DENTIST'S ROLE IN MANAGING DENTAL ANXIETY

NON- PHARMACOLOGICAL MANAGEMENT

1. DISTRACTION

There is proof that patients with mild to severe dental anxiety may benefit from focusing their attention on particular alternative visual or aural stimuli while in the dental office. Music, video games, and toys that provide a sensory distraction can all be used to divert a youngster [19][20]

2.HYPNOSIS

Hypnosis is described as an interactive procedure in which a hypnotist makes an effort to affect a subject's perceptions, emotions, thoughts, and behaviour by encouraging them to focus on ideas and images in order to elicit a desired response.[14]

3. DIRECTED IMAGERY

Similar to distracted speech and guided images involves patients transporting themselves in their minds to a pleasant or tranquil location. By taking the focus off the dental process, this technique can be coupled with relaxation methods to great effect.[14][21]

4. CLINICAL SETTING

It is thought that certain patients experience anxiety and pain anticipation when they are exposed to the distinctive sights, sounds, scents, and sensations of the dental environment. Children receiving a scale and polish from a dental hygienist experienced more relaxation in a more extensive environmental change that included a partially dimmed room with lighting effects, vibroacoustic stimuli, and constant body pressure (a so-called Snoezelen environment, according to the Australian Dental Association 399Management of fear and anxiety in the dental clinic).[21]

5.MODELLING

The relevance of observation and imitation is emphasised by modelling theory. The things depicted in the media, and how it affects how people behave, know things, feel about things, and hold ideals. Effective modelling calls for motivation, retention, reproduction, and attention.

The theory behind modelling is that by fostering a positive environment, one person's positive reaction to a dental procedure can change another child's apprehension toward the same procedure.

Modelling can be a beneficial or harmful practise. Violence is a negative role model, but any rewarding action, such as volunteering, is a positive role model.[22][23]

7.VOICE CONTROL

One method used in paediatric dentistry to restore lost communication with the child is voice control. This technique involves altering your vocal tone. The primary goal is to seize the attention of the child and make the child listen to you.[14]

8.RESTRAINT

The forced restriction of a child's movement is a common component of behavioural control tactics, which are sometimes euphemistically referred to as "protective stabilisation." These include hand-over-mouth exercises, technological restraints like the "papoose board method," and physical restraints such holding the child down by the parent or dental professional.[24]

HOME (hand over mouth technique) A patient-management approach used with pedodontics dental patients in which the dentist gently covers the child's mouth with his hand and promises the child that his hand will be taken off as soon as the child is quiet, able to listen without being noisy, and can control his or her behaviour.[22]

PHARMACOLOGICAL MANAGEMNET OF DENTAL ANXIETY IN CHILDREN

CONSCIOUS SEDATION

To achieve a calm, relaxed patient who can guard their own airway, sustain their own respiration, and listen to verbal orders, sedation requires administering pharmacological drugs.[25]

SEDATIVE MEDICATIONS

NITRATE OF OXIDE

Inhalational nitrous oxide (N₂O) anaesthetics are distinguished by their inert nature and low metabolic activity. As it needs additional substances to generate surgical anaesthesia, it is a poor anaesthetic but a potent analgesic. Nitrous oxide enables an immediate onset and rapid recovery after injection due to its weak solubility in the blood, lack of irritation, and high MAC.[26]

PROPOFOL

A single induction dose of 2 to 2.5 mg/kg of the intravenous anaesthetic propofol results in unconsciousness within 40 seconds, and it is followed by a quick recovery with no postoperative disorientation.[26]

COMPLICATIONS OF SEDATION

Postoperative headache, nausea, retching, and vomiting are minor side effects of general anaesthesia for paediatric dentistry, especially when there has been blood swallowed. Soft tissues or teeth close to the surgical site may sustain damage. Due to tracheal intubation or throat-pack irritation, postoperative cough and sore throat may happen. Complete respiratory blockage brought on by foreign substance inhalation is one of the major consequences. Airway blockage may also result from the placement of the throat pack, mouth-gag, or support, as well as from the presence of blood or debris, especially when using a nasal mask on children who are seated. Positioning during surgery may result in a temporomandibular joint dislocation or injury to the neck.[27][28]

CONCLUSION

Dental anxiety is a common problem seen in children as well as the adults. Children however are more susceptible because of their lack of understanding. Dental anxiety is manifested in various forms and it is of utmost importance for both parents and the dentist to make the child feel comfortable and understood before any treatment which can be achieved by various techniques and in some cases, sedation becomes necessary to make the dental visit peaceful and easy.

Children should be taught the importance of good oral health from a young age to increase their chances at a healthy adult life and this can only be made possible with the conscious efforts of parents and the dentist.

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