



DENTAL ANXIETY, PHOBIA AND FEAR AND ITS MANAGEMENT

Dental Science

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KEYWORDS

INTRODUCTION

Dental anxiety and fear are common problems for both the patient and for the dentist in managing such patients. Dental anxiety is a condition that causes a decrease in population addressability to the dentist with adverse consequences for long-term oral health. Paediatric dentistry deserves a special place in the dental profession. Children and adolescents comprise a group of individuals signifying a considerable variation in age, competence, maturity, personality, temperament and emotions, experience, oral health, family background and culture, which influence their ability to survive with dental treatment¹. Dental fear has been reported as one of the most important reasons for avoidance and negligence of regular dental care. Neglect of dental care may lead to severity of dental diseases and pain. In this situation further visit to the dentist which in turn enhances the patient's original dental fear and leads to avoidance behavior². There have been many measurements to assess anxiety in children, such as Frankl scale, physiological measures (e.g. pulse rate, basal skin response and muscle tension), projective techniques and psychometric scales¹³.

Anxiety

Anxiety is an apprehension or source which is unknown or unrecognized from humanistic and behaviorist perspective⁴. It is a protective state of mind induced by natural environmental threats that serve to detect and avoid danger. The source of the threat may be external (people, places and objects) or internal (thoughts, beliefs or feelings). Dental anxiety is a term defined as patient's response to stress that he or she faces specific to dental clinic or fear of dental treatment and is one of the main reason for avoidance of dental treatment⁵. In United States It was found that 75 % of population experienced anxiety ranging from mild to severe. Among them 5-10 % were such adults who were so anxious, that they avoided dental treatment^{6,7}.

Phobia

Phobia is defined as persistent, excessive, unreasonable fear of a specific object, activity or situation that results in a compelling desire to avoid dreadful object. In 1982 Shelhan⁴ divided Phobia into two types:

- **Exogenous Phobia:** to be produced from outside
- **Endogenous Phobia:** produced from within.

The stimulus is comparatively small compared to the severity of the reaction. This is a lasting abnormal fear that is usually deep rooted in a patient's emotions and often its origin cannot be explained, although this is not always the case. The patient has little or no control over the phobia and logical thought is not a feature. A phobia can significantly change a patient's behavior Embarrassment and shame are often present^{8,9,10}.

DENTAL FEAR

According to Sydney Finn fear is primary emotion acquired soon after birth. Odontophobia is a unique phobia with special psychosomatic components that impact on the dental health of the odontophobic persons⁴. A child may experience two types of fear during dental treatment as;

1. **Subjective fear:** This type of fear is based on somebody else's experiences without actually undergoing dental treatment himself.
2. **Objective fear:** This is based on the child's own experiences. Some children are fearful because they have had previous unpleasant dental experience¹¹.

Dental anxiety can have a profound detrimental impact on the quality of life of the sufferer. According to Cohen et al. impact of dental anxiety on people's lives can be divided into the five categories outlined below¹²:

- **Physiological disruption** – eg dry mouth, increased heart rate, dry mouth and sweating.
- **Cognitive changes** – eg negative and even catastrophic thoughts and feelings.
- **Behavioural changes** – eg alteration of diet, avoidance of dental environment, crying and aggression.
- **Health changes** – eg acceptance of poor oral health and sleep disturbance.
- **Disruption of social roles** – eg reduced social interactions and adverse affects on performance at work^{12,13}.

Current management techniques for Dental Anxiety and Fear⁴

- Pretreatment anxiety questionnaires
- Individual systematic Desensitization and group therapy
- Flooding/Implosion
- Cognitive behavioural therapy
- Relaxation therapy
- Computer assisted relaxation learning
- Hypnotherapy
- Pharmacological agents such as anxiolytic drugs or general anaesthesia^{4,14}

Behavioural techniques

Dentally anxious and fearful children present a considerable challenge to dentists and initial identification of such children is important in order to shorten involvement time, to allow the dentist to acknowledge their limitations and avoid frustration for the dentist and patient. Pedodontist, who treats children, must remember that anxiety is a normal response and it is actually necessary in many situations for safety and security of the child. It is not the child's anxiety, but the way he/she copes with his/her fears, determines the type of dental patient^{4,11}.

In behavioural techniques positive reinforcement is frequently used as shown by the delivery of praise to an appropriately behaved patient¹⁵.

Anxious patients should always be given a stop signal as this transfers an element of control to the patient. A commonly used signal is simply raising a hand and it can be helpful for the patient to rehearse this briefly before treatment. The trust of a patient can take a long time to build up but can be very quickly undermined or destroyed^{8,16}. Patients with needle phobias can often be cured of their phobia by employing a systematic desensitization^{11,12}. In particular, reinforcement and distraction might work well for all children while providing more information about the treatment procedures might be less valuable depending upon the age and interest of the child. There are also behaviour management approaches which are particularly suitable for children rather than adults, and these shall be discussed below¹⁷. Much of the preceding discussion of non-pharmacological management approaches for dental fear and anxiety is as applicable to children as it is to adults. However, children also present their own set of unique challenges for the clinician. Also, the effectiveness of some of the above mentioned approaches will be greater or lesser when working with children^{4,17}. In this regard, the developmental level of the child might be of critical relevance. In particular, reinforcement and distraction might work well for all children while providing more information about the treatment procedures might be less valuable depending upon the age and interest of the child. There are also

behaviour modification techniques which are particularly suitable for children rather than adults, and these shall be discussed below^{4,18}:

- TSD for all children
- Contingency for all children
- Distraction
- Modeling
- Parental Separation for children above age 4
- Voice Intonation
- Physical restrains
- Aversive
- Frankel Rating

Behavior management when used judiciously can result in the most satisfying of all results a child eager to return to the dental operatory for his next appointment.

REFERENCES

1. Sravanthi K, Rajasekhar V, Swapna M. Evaluating the Effectiveness of combined Behaviour management Techniques in Younger Children for reducing Dental Anxiety. *International Journal of Scientific Research* 2019;8: 31-33.
2. Raghavendra H et al. Dental anxiety levels among children and their parents before and after video modelling health education technique. *International Journal of Scientific Research* 2018;7:58-60.
3. Milgrom P et al. Unmet dental need in community-dwelling adults with mental illness: results from the 2007 Medical Expenditure Panel Survey. *J Am Dent Assoc* 2013;144:e16-23.
4. Damle SG. *Textbook of Pediatric Dentistry*. Fifth edition 2017;61-73.
5. Appukuttan D, Datchnamurthy M, Deborah SP, Hirudayaraj GJ, Tadepalli A, Victor DJ. Reliability and validity of the Tamil version of Modified Dental Anxiety Scale. *J Oral Sci* 2012;54(4):313-20.
6. Van Ameringen M, Mancini C, Farvolden P. The impact of anxiety disorders on educational achievement. *J Anxiety Disord* 2003;17(5):561-71.
7. Milgrom P, Newton JT, Boyle C, Heaton LJ, Donaldson N. The effects of dental anxiety and irregular attendance on referral for dental treatment under sedation within the National Health Service in London. *Community Dent Oral Epidemiol* 2010;38(5):453-59.
8. Pohjola V, Mattila AK, Joukamaa M, Lahti S. Anxiety and depressive disorders and dental fear among adults in Finland. *Eur J Oral Sci* 2011;119:55-60.
9. Armfield JM, Pohjola V, Joukamaa M, Mattila AK, Suominen AL, Lahti SM. Exploring the associations between somatization and dental fear and dental visiting. *Eur J Oral Sci* 2011;119:288-293.
10. Donaldson D. Anxiety: its management during the treatment of the adolescent dental patient. *Int Dent J* 1982;32(1):44-55.
11. Coric A, Banozic A, Klaric M, Vukojevic K, Puljak L. Dental fear and anxiety in older children: an association with parental dental anxiety and effective pain coping strategies. *Journal of Pain Research* 2014;7:515-521.
12. Sharif MO. Dental anxiety: detection and management. *J Appl Oral Sci* 2010;18:i. 41.
13. Newton JT, Buck DJ. Anxiety and pain measures in dentistry: a guide to their quality and application. *J Am Dent Assoc* 2000;131:1449-1457.
14. Marya CM, Grover S, Jnaneshwar A, Pruthi N. Dental anxiety among patients visiting a dental institute in Faridabad, India. *West Indian Med J* 2012;61(2):187-90.
15. Armfield JM. How do we measure dental fear and what are we measuring anyway? *Oral Health Prev Dent* 2010;8:107-115.
16. Marshman Z et al. Assessing children's dental anxiety: a systematic review of current measures. *Community Dent Oral Epidemiol* 2013; 41:130-142.
17. Humphris GM, Morrison T, Lindsay SJ. The Modified Dental Anxiety Scale: validation and United Kingdom norms. *Community Dent Health* 1995;12:143-150.
18. Mahipala NA et al. Influencing factors of paediatric dental anxiety levels in an undergraduate dental clinic. *Eur J Paediatr Dent* 2015;16(2):159-162.
19. Kaki M et al. Pediatric behavior management techniques: A survey of Predoctoral Dental students. *Journal of Dental Education* 2007;71(4):532-539.