Aetiology and management of dental anxiety

Sukriti KC and Neesha Patel look at dental anxiety and discuss methods of relieving patient fear

Dental anxiety is a very common psychological condition characterised by a panic response to dental procedures and treatments. The psychology of patient anxiety triggered in a dental setting can be explained by understanding various factors such as predisposed fears, influenced fears, verbal and non-verbal approaches of the dental team and the presence of other psychological disorders.

By understanding the psychological underpinnings of dental anxiety, the dental team can suggest relevant psychological or clinical interventions as well as utilise various coping techniques to help patients overcome their fear and achieve better oral healthcare.

**Dental anxiety**

Dental anxiety can be described as an extreme fear of dental procedures and the dental team, characterised by a distressing response that can be attributed to perceptions of threat to dental stimuli or the feeling of loss of control.

The psychological fear is exacerbated by physiological manifestations, including heart palpitations, sweating, dizziness, and a gag reflex, which act as a physical corroboration of their mental fear (Carr, McNulty, 2006).

Dental anxiety often acts as an impediment to receiving dental care by affecting the patient's willingness to visit the dentist for a consultation thus resulting in missed or postponed appointments in a bid to delay any treatment as much as possible.

This treatment avoidance gradually worsens the oral health condition and hence a more invasive treatment may be necessary to treat a problem that could have been easily diagnosed earlier or prevented.

As a result, the fear of treatment is further reinforced, leading to more treatment avoidance and prolonged dental problems (Figure 1) (Armfield, 2010).

This vicious circle is also strengthened by the fact that anxiety levels increase with the increase in time lapsed since the previous appointment (Biggs, Kelly, Toney, 2003).

**Prevalence**

In the UK, it is estimated that one third of people report some anxiety in relation to dental treatment (Naini, Mellor, Getz, 1999). It is the most common psychological condition seen in clinical settings with a prevalence range of 4.2% to 15.3% reported in general population.

Research has shown that people who report having encountered painful dental treatment and sensed a lack of control in the dental scenario were roughly 14 times more inclined to report higher levels of dental fear, and about 16 times less willing to return to the dentist for subsequent appointments (Dempster, Locks, Swindon, 2011).

**Factors causing dental anxiety**

**Predisposed fear**

Some patients have a predisposed fear to certain stimuli used in a dental setting (eg, pinch of needle, sound of drills, gag reflex). This fear often results in the fear of overall dental treatments (Barr, 2006).

**Indirect and influenced fear**

Dental anxiety can also be developed through vicarious learning or by impersonated fear of someone else’s bad experience. A child who has seen a parent stress about dental treatments is likely to develop a fear of dentists. Also, people who have heard stories of bad experiences are more than likely to conceive an influenced fear in their mind, leading to the development of anxiety conditions (Berggren et al, 1997).

**Proxemics**

In order to provide effective dental care, the notion of ‘intimate zone’ and ‘personal space’ is very much disregarded in a dental setting. Inserting multiple instruments into someone’s mouth while obscuring their field of vision with masked faces leaning over them is often enough of a reason to cause distress (Vrabel, nd).

This is thought to be one of the reasons why many children do not like visiting the dentist, as they are not comfortable with the idea of ‘strangers’ encroaching their personal zones (Barr, 2006). Even in adults, the need for disregarding proximity barriers while providing treatments often stimulates dental anxiety.
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Figure 1: The dental anxiety cycle

Attitude of the dental team
Patients are influenced by verbal as well as non-verbal communication cues displayed by the dental team. Pain caused by a dentist who is perceived as caring is much less likely to result in psychological trauma (Weiner, 1999). Similarly, patients are found to be more comfortable being treated by a dentist who takes time to understand them while maintaining a friendly yet professional relationship (Corah et al, 1998).

Comorbidity with other psychological problems
Dental anxiety is often but not necessarily always co-related to other psychological problems such as ‘generalised anxiety disorder’, panic disorder/agoraphobia, clautrophobia and depression.

Treatment
Medical interventions
Medical interventions include sedation, general anaesthetic, and anxiolytic medication.

Psychological interventions
Psychological interventions include:
• Systematic desensitisation. Anxiety inducing stimulus hierarchy is identified, coping techniques are taught, patients are encouraged to use the coping techniques while being exposed to the stimulus in a counter balancing order to gradually overcome the fear (Luscre, Center, 1996)
• Exposure therapy. Stimulus of fear is identified and exposed to patients while controlling the sense of danger associated to it (Gitin, 1998)
• Modelling therapy. Patients are allowed to watch others being treated in order to build their trust and compliance
• Hypnosis. Used in conjunction with other approaches, patients are assisted to accessing their subconscious mind in an induced state of ‘trance’ to achieve their anxiety management goals.

Anxiety management
In addition to medical and psychological interventions, there are various ways to manage anxiety during dental visits, such as:
• Breathing techniques. Deep breathing is encouraged by instructing the patients to count to five while slowly inhaling and exhaling. They are also asked to place their hand on the abdomen and breathe while focusing on the abdominal rise and fall. Anxious patients tend to either hold their breath or breathe rapidly, so these methods allow the muscles to relax and hence lessen the tension (Miller, 2006)
• Muscle relaxation. Patients are asked to tense and relax two to three major muscle groups; one at a time, for whole body relaxation and slowing the heart rate (nd, 2010)
• Distraction. Patients are encouraged to shift the focus to something else while undergoing treatment. Distracting the mind from the source of fear helps to lessen the anxiety. This can be achieved by asking the patient to focus on the lyrics of the song being played or wriggling their toes (nd, 2010). Audio as well as visual distractions are found to be very effective in pain management as attention is more focused towards the A/V distraction rather than the feared stimulus. Traditional A/V distraction systems use television monitors above the patient chair while more modern A/V systems are lightweight, goggle-style with a built-in TV monitor and stereo earphones. Such A/V systems can be offered to any patient without medical or psychological contraindications and has been found to be particularly effective in anxious patients. However, for patients with high anxiety levels using self-induced relaxation techniques, visual aids can prove to be more of a distraction than an aid (Freer et al, 2001). In such cases, audiotapes can be used as an alternative distraction medium. Commonly used in dental settings, audio analgesia encourages integrating feelings, thoughts as well as movement and helps to smooth motor behaviour (Siever, 2006)
• Communication. Negative and technical terms need to be avoided wherever possible as they tend to trigger fear responses (Kobyasova, 2011; nd, 2010) For example, phrases such as: ‘I’m going to give you an injection’ should be replaced with ‘I’m going to numb the tooth’ for adults or, ‘I’m going to put the tooth to sleep’ for children. Similarly, ‘drill’ can be referred to as ‘handpiece’ or ‘noisy toothbrushes’. Constant positive feedback and reassurance also help to alleviate fear by boosting the patient’s self-confidence. Explaining the treatment process to the patient (depending on the level of information they are comfortable knowing) helps them to understand the procedure and overcome the fear of the unknown. Thus, patients can comprehend the treatment procedure and become more compliant and less stressed (Bernson et al, 2011).

Conclusion
Dental anxiety greatly impedes an individual’s access to oral healthcare, which results in deterioration of both general as well as oral health. It is therefore important to understand dental anxiety and address this issue in order to help patients to trust the dental team as well as endure the procedure with minimal stress.

This understanding also facilitates the dental team to provide a high quality of dental care through a mutual process of understanding (Bernson et al, 2011).

References
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