

Patient -Centered Approaches to Dental Anxiety: A Narrative Review

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Abstract

Dental anxiety is something many of us are familiar with, especially when it starts early in life. For children and adolescents, fear of the dentist can become a major hurdle—not just in receiving care, but in feeling safe and supported during what can already be a stressful experience. This review looks closely at where dental anxiety comes from—whether it’s a past negative experience, fear of pain, a loss of control, or even the influence of anxious parents or peers. Drawing from recent studies and clinical insights, it also explores a wide range of approaches that can help—from simple behavioral strategies like tell-show-do and positive reinforcement to tools like sedation and relaxation techniques. More than anything, this piece emphasizes the importance of empathy, communication, and creating a dental environment where kids feel heard, respected, and reassured. When we take the time to understand their

fears, we’re in a much better position to help them overcome them.

Keywords: Dental anxiety, Patient Management, Behavior Modifications, Tell-Show-Do

Introduction

Dental anxiety or phobia can be defined in many terms; it is typically a phobia that emerges in childhood. This fear is observed in both children and adolescents. It poses a significant barrier to patients seeking essential dental care¹. Avoidance of treatment results in further health issues. It has been studied that dental fear can cause sleep disorders and affect psychosocial functioning^{2,3}. Research indicates that dental fear can not only interfere with dental visits but can also lead to sleep disorders and negatively impact a child’s overall psychosocial well-being⁴. The prevalence of dental anxiety is 15%, which is higher in younger adolescents and is more prevalent among women^{1,5}.

Dental anxiety cannot be pin pointed to single source rather it arises from diverse sources which may include trust issues can arise from inappropriate treatment provided by dentists or a lack of knowledge, which has led to poor or misdiagnosis, past traumatic dental experiences, such as soft tissue injuries, can contribute to anxiety, previous injuries to the head and neck may also play a role, patients often experience a feeling of loss of control during dental procedures⁶. For example, any soft tissue injury, previous injuries to the head and neck, a feeling of loss of control during procedures, vicarious learning from anxious family members^{7,8}.

Stress, Anxiety, & Fear are simultaneously negative or aversive emotional states, full of symptoms that can motivate through a process of threat appraisal. The interaction of the intensity of an emotional response with threat appraisal determines the content of the behavior that will follow (whether or not to show up at the dentist's office, to submit to an injection, to accept the need for an extraction or filling, etc.)⁹

Various approaches can be beneficial in managing dental anxiety such as psychological techniques like deep breathing, meditation, distraction, guided imagery, and progressive muscle relaxation can empower patients to cope with their fears, sedation options, including nitrous oxide and intravenous (IV) sedation, provide safe and effective relief from anxiety during treatments. This is also known as painless dentistry, medications, such as oral anxiety-relief options like temazepam, can help calm anxious minds before appointments, general anesthesia offers a solution for those who need to feel completely relaxed by being fully asleep throughout the procedure, behavioral modification techniques for children include positive reinforcement, systemic desensitization, tell-show-do, and modeling, aromatherapy is another alternative approach that can be used in the dental

office.^{1,2} In aromatherapy, essential oils of aromatic plants are used to produce positive physiological or pharmacological effects through the sense of smell. Inhaling pleasant scents such as essential oils have an anxiolytic effect and improves mood.¹

Helping children feel safe and comfortable in the dental chair begins long before any instruments are picked up. For many young patients, a visit to the dentist can be intimidating or even frightening. This fear—commonly referred to as dental anxiety—is more than just a moment of nervousness; it can become a barrier to receiving the care they need. That's why it's so important for dental professionals to understand not only how this anxiety develops, but also how to respond to it with empathy and intention.^{1,4}

Dental anxiety in children often stems from a variety of sources—previous negative experiences, fear of pain, separation from their parents, or simply the unfamiliar sights and sounds of the dental office. These feelings can manifest in different ways, from visible distress and crying to quiet withdrawal or refusal to cooperate. If we overlook these early signs, we risk reinforcing a child's fear, making future visits even more difficult.¹

As clinicians, we have the opportunity—and the responsibility—to change that narrative. It starts with creating a welcoming environment where children feel seen, heard, and respected. Simple efforts, like explaining procedures in age-appropriate language, allowing a parent or guardian to stay nearby, or offering choices when possible, can go a long way in giving a child a sense of control and comfort. Even small gestures—a gentle tone, a smile, or praise for bravery—can build trust and shift a child's perspective on dental care.³

Beyond environment and communication, it's also essential for dental professionals to be equipped with effective behavioral management techniques. Strategies

like tell-show-do, distraction, positive reinforcement, and guided breathing can help reduce anxiety in real-time. In some cases, when fear is more severe, additional support such as desensitization therapy, sedation, or referrals to pediatric specialists may be necessary. The key is to tailor the approach to each child, taking their unique needs and temperament into account.⁴

When we respond thoughtfully to dental anxiety, the benefits are far-reaching. Children are more likely to complete treatment, return for regular checkups, and develop lifelong habits of good oral health. Parents feel more at ease, knowing their child is in compassionate hands. And as providers, we experience fewer disruptions, more cooperative appointments, and the rewarding sense of making a real difference.³

Ultimately, helping a child overcome dental anxiety is about more than managing behavior—it's about building trust, promoting resilience, and fostering positive health experiences from a young age. With patience, empathy, and the right tools, we can turn fear into confidence, and routine dental visits into something children no longer dread—but maybe even look forward to.⁷

Methodology: To review the literature, Studies were selected from PubMed, Scopus, Web of Science, and Google Scholar with restrictions on publication year from 2015-2025, to provide a comprehensive overview of current knowledge on patient management to routine dental practice. The review focused on managing dental anxiety. The search items included: “Patient management”, “Dental anxiety”, “Behavior Modifications”, “Tell-show-do”. The research encompassed, Case reports, clinical studies, and systemic review

Etiology: Dental anxiety is not pinpoint to one causative factor, there are many causes which can give rise to dental anxiety. One of the most common causes is a

previous negative experience — maybe a painful procedure, or perhaps a dentist who was too rushed or dismissive. That kind of memory can stick. Even if future care is gentle and pain-free, that early experience leaves a lasting impression.²

For others, anxiety doesn't come from their own experience at all, but from someone else's. A parent who's visibly anxious before an appointment or a friend who shares horror stories can unintentionally pass on their fear. This is especially common in children, who are incredibly tuned in to the emotions of those around them.⁸

But it's not always about the dentist specifically. People having past traumatic medical experiences — particularly those involving the head, face, or mouth — may find the sounds, smells, and even the positioning in the dental chair triggering. Add to that a fear of needles, a strong gag reflex, or even embarrassment about the state of their teeth, and it's easy to see how dental visits can quickly feel overwhelming.⁷

Some patients usually feel very helpless while seated in the dentist's chair. They often have to lean back with their mouths wide open, they cannot see what is happening and they do not have control over the situation. This can cause a lot of dental anxiety. Fortunately, talking to the doctor beforehand can reduce some of this stress. The doctor can explain the procedures, answering all of the patient's questions beforehand so there are no surprises.²

In adolescents, anxiety may be tied to a desire for control or fear of judgment. Many teens are already navigating heightened self-awareness and body image concerns, so the idea of someone inspecting their mouth in detail can feel especially vulnerable.⁹

Some patients with badly damaged or decayed teeth may feel embarrassed about the state of their oral health or

hygiene. They may also be a bit self-conscious about possible mouth odor. This embarrassment may make them anxious about going to a dentist and talking about the state of their teeth. Fortunately, experienced dentists have the training to deal with all types of dental health issues and they will be able to help. Therefore, the patient can be sure that the state of their teeth will not shock the dentist and they do not have anything to be ashamed or embarrassed about.¹⁰

Management

Tell-Show-Do is a common technique, especially with children. Tell-show-do is the backbone of the educational phase of developing an accepting, relaxed child patient. In this technique, you tell the child what is going to happen, you show the child what is going to happen, and then perform the actual procedure in the mouth. Tell-show-do works especially well when treating a child with a different cultural background.¹⁰

Positive reinforcement is key — especially for younger patients. A kind word, a sticker, or just hearing “You’re doing great” can help build confidence and ease fear over time.

Relaxation techniques like deep breathing, calming music, and guided imagery can help patients of all ages get through appointments with less tension.¹¹

Sedation Mild cases may benefit from nitrous oxide, also known as laughing gas, which helps take the edge off without putting the patient to sleep.¹² In more intense situations, oral medications or even general anesthesia might be necessary — particularly for patients with phobias, special needs, or those needing extensive dental work. Oral drug such as MIDAZOLAM (Versed Injection, Syrup, or Nasal Spray)- an anti-anxiety (benzodiazepine) drug that relaxes and makes child sleepy. Closely related to diazepam (Valium).¹²

Used in adults and children to reduce anxiety and fear. In adults, it is given through a vein in the arm. During the last 20 years, it has almost totally replaced diazepam as the drug of choice for IV sedation. It causes less burning and pain during injection. In children, it is usually given orally as a sweet-tasting syrup. Some dentists may elect to give midazolam as a nasal spray.¹³

Aromatherapy — using gentle scents like lavender to create a more soothing environment. While it’s not a standalone treatment, it can be a helpful addition to other techniques.¹⁴

Rubber Dam: a main advantage of using a rubber dam is it aids in child management. It seems to quiet and calm the patient because it acts as a separation/barrier both physically and psychologically between the patient and dentist. Thus, the rubber dam works for a very nervous or anxious patient. Contraindications: presence of fixed orthodontic appliances, a patient with congested nasal passages/nasal obstruction, or a recently erupted tooth that will not retain a clamp.¹⁵

Observational Learning (Modeling or Behavior Shaping)- a behavior acquired through initiation of a behavior observed in a social context. There are two distinct stages in observational learning: acquisition of the behavior by observing the behavior and the actual performance of the behavior. Having an open dental office design may aid in the dentist in this method. Children can watch other cooperative children, and this may rub off on them. Modeling is a technique in which the person learns a desired response by observing it being performed. Relative maturity modifies expectations of a child’s behavior in that a child cannot be expected to learn a mode of behavior until he has matured to a stage at which he is ready for such learning.^{11,15}

Systemic Desensitization-a technique used to eliminate maladaptive anxiety associated with phobias. The

procedure involves the construction by the person of a hierarchy of anxiety producing stimuli and the general presentation of these stimuli until they no longer elicit the initial response of fear.¹⁶

Behavioral rehearsals—providing a patient with the opportunity to practice coping strategies (e.g., diaphragmatic breathing) while experiencing a simulated procedure or part of a procedure.¹

Cognitive coping (reframing)—assisting patients in changing their thinking about something to a more adaptive or realistic thinking style (e.g., helping the patient to change his or her thought from “I can’t do this” to “This may be difficult for me, but I can manage this. I did okay last time.”).¹⁵

Use praise—demonstrate progress; set realistic expectations. Ask patients to practice coping skills at home and when in the office.^{1,15}

Distraction—giving the patient a competitive attentional focus can be useful (e.g., listening to music, watching a video).¹⁶

Diaphragmatic (paced) breathing and relaxation—educate the patient regarding the relaxing benefits of deep breathing. Demonstrate this technique. Practice four to five breaths with the patient. Remind the patient to use these skills during the visit and to practice the skill at home.¹⁷

Progressive muscle relaxation— It was originally discovered by Dr. Edmund Jacobson for relaxation, a two-step technique that involves systematically tensing and relaxing certain muscle groups, directing the patient to attend to the differences in sensation between tension and relaxation. It is especially useful for children and adolescents with dental anxiety, as it gives them a sense of control and helps calm their bodies before and during treatment.¹⁷

Conclusion

At the heart of it, helping a child manage dental anxiety is about more than just getting through an appointment—it’s about earning their trust. Every child brings their own story, their own experiences, their own fears, and their own way of coping. As dental professionals, we have a powerful role in shaping how those early experiences unfold. Whether it’s taking a few extra minutes to explain what’s happening, offering a calm and welcoming space, or celebrating small victories, these moments matter. When we meet kids where they are—with patience, kindness, and the right tools—we’re not just easing fear in the moment; we’re helping build a foundation for a lifetime of healthy habits and positive dental visits. And sometimes, that shift—from fear to confidence—is the most meaningful part of what we do.

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