

PRACTICAL APPROACHES TO BEHAVIOR SUPPORT IN CHILDREN WITH SPECIAL MENTAL HEALTH NEEDS – A LITERATURE REVIEW

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ABSTRACT

Aim: This review examines the challenges faced by dental professionals when treating patients with disabilities, both developmental and acquired, and proposes evidence-based recommendations to optimize care and patient-provider trust. **Materials and method:** A comprehensive review of the literature was conducted, focusing on behavioral, sensory, and procedural barriers in dental treatment for individuals with disabilities. Studies addressing clinical strategies, caregiver involvement, and environmental adaptations were analyzed to develop practical guidelines for effective management. **Results:** Patients with disabilities often exhibit communication difficulties, heightened anxiety, and sensory sensitivities, which can complicate routine dental procedures. Effective management strategies include individualized care plans, structured and predictable appointments, caregiver collaboration, and tailored behavior guidance techniques. Environmental adaptations, such as reducing sensory stimuli and using visual supports, along with positive reinforcement and pre-visit preparation, were consistently identified as critical factors in facilitating cooperation and building trust. **Conclusions:** Implementing structured, patient-centered strategies enables dental professionals to provide safe, effective, and compassionate care for patients with disabilities. Adopting these evidence-based guidelines enhances treatment outcomes, improves patient satisfaction, and fosters confidence in both patients and caregivers, supporting the broader goal of enabling individuals with disabilities to achieve optimal oral health and overall quality of life.

Keywords: disabilities, cerebral palsy, ADHD, autism, dental prevention, treatment, mental impairments

INTRODUCTION

Children with special mental health needs often present complex behavioral challenges, that extend beyond the scope of typical developmental challenges. These behaviors may stem from underlying emotional disorders, neurodevelopmental conditions, trauma histories, or co-occurring cognitive and communication difficulties. As a result, families, educators, and healthcare providers frequently encounter difficulties in managing behaviors that disrupt daily functioning, impede learning, or interfere with essential clinical care, including oral health measures.

Literature outlines various reasons

underlying the inadequate provision of dental care for individuals with disabilities. One of these is the lack of knowledge, willingness, and clinical experience among dentists to effectively manage patients with disabilities. Limited awareness of the actual oral health status within the disabled population and the absence of comprehensive healthcare programs targeting non-institutionalized individuals with disabilities could also be of reason. Furthermore, insufficient information and education provided to parents and caregivers regarding the importance of oral health, the healthcare system, and the

associated financial requirements seems to be involved. Equally important, the general neglect of home-based oral care services constitutes a significant contributing factor [1].

Traditional behavior management strategies, often designed for neurotypical populations, may not adequately address the individualized needs of these children. In recent years, however, there has been a growing shift toward person-centered approaches that emphasize functional assessment, prevention, and supportive intervention rather than reactive methods. These models recognize that effective behavior support must consider the child from a holistic point of view, including their emotional regulation capacity, environmental triggers, communication abilities, and family dynamics.

This article explores practical, adaptable strategies for behavior support tailored to children with diverse mental health needs.

MATERIALS AND METHODS

This study was conducted after searching the literature for MeSH terms like: *“child mental health”*, *“child behavior disorders”*, *“oral health care”*, *“behavior therapy”*, *“special care dentistry”*, in PubMed and Web of Science databases.

RESULTS AND DISCUSSIONS

Behavior management in pediatric dentistry for children with special mental health care needs focuses on different types of disabilities. Children with intellectual disability, cerebral palsy, attention-deficit/hyperactivity disorder (ADHD), autism spectrum disorder (ASD), and other emotional or neurodevelopmental conditions exhibit distinct behavioral and cognitive profiles that directly influence their

responsiveness to dental care. Literature shows that these children experience higher levels of dental anxiety, lower treatment compliance, and increased sensitivity to environmental stimuli compared with their typically developing peers [2,3]. Such differences require specialized and often individualized approaches to behavior management in the dental clinic.

Children with intellectual disability are frequently reported to demonstrate limited comprehension, reduced adaptive skills, and difficulty processing verbal instructions, all of which contribute to lower levels of cooperation during treatment [4-6].

Providing dental care to individuals with intellectual disability requires the practitioners to adapt their treatment approach in order to accommodate the patient's unique social, cognitive, and emotional characteristics. These patients may exhibit attention-deficit and hyperactivity symptoms, become easily agitated, or experience mood fluctuations during dental procedures [7]. To apply a good behavior management, several practical strategies can be used [8]:

- Arrange a brief orientation tour of the dental office before the first treatment session
- Introduce the dental team to the patient, allowing the patient to become familiar with staff
- Allow the patient to hold a favorite object, such as a soft toy, blanket, or comfort item throughout the appointment
- Use a simple and calm language and repeat information as needed to ensure understanding
- Give instructions one step at a time, allowing the patient to process and respond before proceeding
- Use positive reinforcement such as

praise, tangible rewards, or other incentives to encourage cooperative behavior.

- Actively listen to the patient, paying attention to their verbal and nonverbal cues, and respond with empathy and patience

Children with different degrees of intellectual disability often experience communication impairments, making it essential for the dentist to be attuned to their nonverbal cues, gestures, and attempts to communicate [7]. To facilitate more effective interaction and ensure patient comfort, dental professionals should adopt the following strategies [8]:

- Actively involve caregivers or family members in the communication process, as they can help interpret the patient's verbal and nonverbal signals
- Keep treatment appointments short, tailoring the session's duration to the patient's attention span and tolerance
- Gradually introduce more complex procedures, such as anesthesia or restorative work, and only after the patient has become familiar with the dental environment, its routines, and the staff
- Wherever possible, schedule appointments in the early part of the day, when patients may be more alert and less fatigued, which can help reduce anxiety and improve cooperation.

Individuals with cerebral palsy also present certain difficulties regarding oral health care, including motor impairments, oro-motor dysfunctions and involuntary movements that can complicate dental procedures and require physical support or modified positioning techniques [9-11].

Practitioners who are unfamiliar with the

clinical manifestations of cerebral palsy may mistakenly perceive these children as uncooperative or difficult to manage. Moreover, pediatric dentists who lack knowledge of the physical and cognitive limitations associated with this disease may experience discomfort or, in some cases, may even be reluctant to provide care [3,4].

In order to offer safe and effective dental treatment, several strategies have been recommended in the management of these patients:

- Provide care while the patient remains in their wheelchair, if applicable, to enhance comfort and safety [11].
- Ensure the patient's head is well-supported and remains stable throughout the procedure.
- Verify that the patient is seated comfortably, checking the positioning of the extremities to prevent strain or involuntary movements [9].
- Employ appropriate immobilization techniques to control limb movements when necessary.
- Select suitable mouth props to manage involuntary jaw activity.
- Avoid sudden movements, loud noises, or unexpected lighting changes without prior warning to minimize sensory overstimulation.
- Keep procedures as efficient and concise as possible to reduce fatigue, anxiety, and the risk of involuntary movements [10,11].

By adopting these measures, dental practitioners can provide patient-centered care that accommodates the motor and cognitive challenges associated with CP, ultimately improving both safety and treatment outcomes.

Children diagnosed with ADHD (attention deficit hyperactivity disorder) often prove symptoms of inattention and impulsivity that

significantly influence their behavior during dental visits. These characteristics are linked with challenges such as shortened attention span, difficulty remaining still in the dental chair, and a greater need for structured and shorter appointment segments to maintain cooperation and engagement. Research has shown that higher levels of impulsivity and hyperactivity in children with ADHD are associated with more frequent behavior management difficulties and an increased risk of dental trauma in clinical settings, indicating that tailored behavior guidance and scheduling strategies can improve care outcomes in pediatric dentistry [12,13].

Certain measures can be effective in the behavior management of children with ADHD in the dental setting [14-16]:

- Book appointments in the morning or at a time of day when the child is least fatigued and most attentive — to improve cooperation and ability to remain seated.
- Have the detailed medical history of the child, with current medications, dosage, and timing of last dose, as stimulant medications can affect attention and cooperation on the dental chair.
- Use pre-visit imagery or social stories (office photos, books, picture schedules) so the child knows what to expect during the dental visit.
- Use Tell/Show/Do method, give one instruction at a time, using simple language directed to the child; speak in a reassuring, steady tone; avoid raised or stern voices, as calm communication reduces anxiety.
- Praise cooperative behaviors frequently; consider small rewards (stickers, tokens) for sitting still, following directions, or good cooperation.

- Allow brief pauses during treatment so the child can reset focus and reduce restlessness; use stop signals and agree on a simple cue (e.g., “thumbs up to continue”) so the child feels control over the process.
- Minimize loud noises and bright lights; allow noise-reducing headphones or sunglasses if helpful; short wait times in the lobby and provide a calm space before treatment, to lower anxiety and sensory stress levels.
- In children with sensory challenges, sensory-adapted dental environments (soft lighting, predictable sounds) can reduce stress.
- In severe cases (severe anxiety or extremely limited cooperation), deeper sedation or behavior support under clinical guidelines may be indicated, following AAPD recommendations [17].

Children with autism spectrum disorders (ASD) commonly experience behavioral challenges during dental care that may arise from sensory processing differences, reluctance to changes in routine, and communication barriers. Sensory hypersensitivities, such as increased reactivity to sounds, lights, tastes, and touch, can make the dental environment overwhelming, resulting in heightened levels of dental fear and more disruptive responses to typical dental stimuli. Studies of dental anxiety in ASD populations report that a large proportion of children with ASD exhibit clinically significant dental anxiety and behavioral distress in response to routine dental procedures, often related to sensory overload or unfamiliar experiences [18,19].

We identified a series of clinical strategies that can be effective in the management of children with autism spectrum disorders

[17,20,21]:

- Schedule appointments earlier in the day to reduce waiting-room stress and sensory overload.
- Ask caregivers before the visit about their child's sensory sensitivities, communication styles, and effective calming strategies.
- Offer desensitization visits where the child can become familiar with the clinic environment, staff, and instruments without pressure to perform dental tasks.
- Speak in short, concrete phrases ("open wide", "now rinse"), avoiding complex language, metaphors or medical jargon; maintain consistent communication throughout the visit and explain each step before it happens.
- Incorporate picture cards, visual cue sequences, and social stories to show what will happen next during the appointment; let the child use yes/no cards, stop/go pictures, or happy/sad faces cards to communicate their needs.
- Dim overhead lights and reduce auditory stimuli (turn off music, offer noise-canceling headphones); minimize strong smells and tactile surprises (cold instruments, unexpected sensations); keep the clinic room calm, quiet, and clutter-free to reduce sensory overload.
- Whenever possible, have the same dentist and staff see the child on each visit to build familiarity and trust.
- Use methods like Tell-Show-Do and visual pedagogy to break procedures into predictable, manageable parts.
- Provide praise, stickers, or a small preferred item for cooperation and

progress; reinforce every small step toward cooperation, not just task completion.

- Involve parents/caregivers in providing individualized strategies and cues that work at home or in familiar settings; allow the caregiver to stay with the child if that helps communication and trust.
- For severe anxiety or lack of cooperation, consider sedation options in accordance with clinical guidelines and child's needs.

Other conditions, such as anxiety disorders, communication disorders, and mood dysregulation also contribute to heightened emotional reactivity and reduced tolerance for dental procedures, further increasing the need for individualized behavior management strategies in children with special mental health needs. Collectively, the evidence across studies underscores the importance of tailored behavioral approaches that integrate structured communication, sensory accommodations, caregiver involvement, and patient-centered techniques [17].

CONCLUSIONS

Behavior management in children with special mental health needs, such as intellectual disability, autism spectrum disorders, ADHD or cerebral palsy requires individualized and adaptive strategies that account for cognitive, emotional, and sensory differences. Structured appointments, visual supports, and stepwise explanations contribute to predictability, which reduces anxiety and facilitates cooperation in the dental setting.

The active involvement of caregivers, combined with positive reinforcement and reward systems enhances engagement and builds trust, while sensory-friendly

environmental modifications including reduced noise, dimmed lighting, and minimized tactile stimuli might help reduce

overstimulation and behavioral distress of children in the dental office.

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