Student Scene

The Oral Care Spectrum: Tips for Providing Oral Health Care for Children with Autism Spectrum Disorder

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Autism spectrum disorder (ASD) is a lifelong neurodevelopmental condition affecting various aspects of an individual's life, including behaviour, sensory processing, communication, cognition, and social interaction.[1] Its prevalence is increasing, with 1 in 66 children and youth between the ages of 5 and 17 diagnosed in Canada in 2015.[2] Research suggests children with ASD face a heightened risk of caries and periodontal disease, yet many are hesitant to attend preventive care appointments.[3,4] This reluctance can lead to worsening oral health conditions and the need for more complex dental procedures requiring anesthesia or sedation.[3] The pediatric dentistry unit in Halifax, Nova Scotia, part of the IWK Health Centre, provides specialized care for individuals under 16 years of age, including those with ASD.[5] Currently, the average wait time for surgical procedures stands at 801 days,[5] possibly contributing to patients experiencing ongoing oral pain, sleep disturbances, and disruptions to schooling and extracurricular activities.

Ideally, children with ASD would access preventive care within their own communities, reducing the burden on our health care system and alleviating long wait times. However, children diagnosed with ASD often find it challenging to cope with new experiences.[6] The oral health care environment, with its variety of sounds, smells, and visual stimuli, can intensify feelings of anxiety and fear for them.[6] In addition to heightened fear and anxiety, research highlights other barriers[1] that may contribute to an overall reluctance to access preventive oral health care, such as:

- challenges understanding verbal and non-verbal cues
- comfort with personal space
- difficulty adapting to change
- trouble with verbal communication
- hypersensitivity leading to anxiety and discomfort
- negative behaviour responses to stress

Considering the rising prevalence of ASD diagnoses, it is important for oral health professionals to equip themselves with the necessary skills and strategies to provide preventive oral care to this demographic in their communities. Navigating the intricacies of ASD requires a thoughtful approach, but research suggests that simple, cost-effective measures can yield remarkable results. The following strategies have been shown to be effective:

1. DENTAL DESENSITIZATION

Children with ASD may react strongly to new environments and stimuli such as noises and smells.[7,8] Offering a tour of the dental office can help familiarize them with the setting, staff, and equipment used during their appointment. This approach is most effective when the tour occurs shortly before the appointment.[7,8]

2. SOCIAL STORIES

Social stories provide clear, step-by-step information, clarifying ambiguous situations or activities.[9] Dental offices can customize social stories to their clinic and team members, starting from outside the building and detailing a typical appointment sequence for the child.[9,10]

3. TELL, SHOW, DO

"Tell-show-do" introduces procedures in a stepwise manner. The child first understands the procedure through explanation, then it is demonstrated in a way that involves the appropriate senses before the procedure is performed on the child.[11] For example, before applying fluoride varnish, explain what the fluoride varnish is used for, show the child the fluoride varnish, use the brush on their finger, then apply fluoride to their teeth.[11]

4. NOISE-CANCELLING HEADPHONES

About 70% of children with ASD experience heightened sensitivity to auditory stimuli, potentially leading to adverse behavioural reactions. Noise-cancelling headphones offer a cost-effective solution, and while highly effective in reducing low-frequency noises, human voices remain audible.[12]

5. ALTERNATIVE TOOTHBRUSHES

Children with ASD may exhibit uncooperative behaviour due to touch sensitivity, particularly in relation to oral sensations.[13] Work with parents/guardians/caregivers to discover the best toothbrush option. Various alternatives such as three-sided, electric, singing or silicone toothbrushes are readily accessible.[14,15]

6. VISUAL AIDS

Visual aids are invaluable tools for improving oral hygiene skills and cooperation in children with ASD.[6] These aids help familiarize children with oral health care environments, reduce anxiety, and facilitate learning. Pictures or videos are effective for non-verbal or non-fluent patients, increasing the likelihood of cooperation during oral health care.[6]

7. AUDIOVISUAL INTERVENTIONS

Audiovisual distractions have been shown to be successful in reducing children's pulse rate, and can be effective in reducing fear, anxiety, and uncooperative behaviour.[4] One study revealed that a tablet device fixed to the operatory chair was superior in pain control during an IAN block when compared to AV glasses, a VR box or no intervention. While audio aids are more commonly accessible, audiovisual aids exhibit greater effectiveness overall.[4]

8. VIDEO OR PEER MODELLING

Children show a preference for visual information, such as television or videos.[4] Consider showing a video of another child's preventive oral care treatment, covering all aspects of a typical appointment.[4] In one study, children with ASD watched a desensitizing video before their appointment, which resulted in decreased anxiety and improved cooperation.[3]

9. LIGHT SENSITIVITIES

The impact of lighting on children with ASD is profound and can influence both their mood and behaviour. Neutral lights create a calming atmosphere. LED lightbulbs are preferred over fluorescent bulbs.[16] Additionally, having the ability to adjust or dim the lighting can significantly enhance the child's emotional state and behaviour during their visit.[16]

The many barriers faced by children with ASD emphasize the importance of individualized, patient-centred care, as there is no "one size fits all" solution. Utilizing these simple accommodation strategies can aid in increasing clinician confidence and patient comfort during oral health care visits. Additionally, it can contribute to easing the burden on surgical wait times while fostering inclusivity and understanding within our communities.

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The Oral Care Spectrum…cont'd

A CLINICIAN'S TOOLBOX FOR PROVIDING EXCEPTIONAL CARE TO CHILDREN WITH ASD

- Electronic screen media, such as tablets, can serve as an engaging distraction, providing a positive focus.[3]
- Visual aids and video peer-modelling offer visual cues, helping comprehension and eliminating uncertainty.[3]
- Desensitization appointments provide a structured, gradual introduction to the oral health care environment, helping to ease anxiety in children with ASD.[6]
- Social stories help with executive functioning and sequencing.[9]
- "Tell-show-do" allows clinicians to demonstrate procedures step-by-step, enhancing predictability for the child with ASD.[10]
- Using earmuffs or noise-cancelling headphones helps minimize sensory overload, creating a quieter and more controlled atmosphere.[11]
- Alternative toothbrush options cater to individual sensory preferences.[12]
- Neutral and controllable lighting contributes to a calming environment, accommodating those with sensitivities to bright and/or flickering lights.[16]

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