



Empowering Oral Health Care for Individuals with Autism Spectrum Disorder: Understanding Challenges and Tailored Strategies

by Emily-Marie Roberts, BScDH, RDH • emilymarieroberts1@gmail.com

CDHA/CJDH STUDENT WRITING COMPETITION

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INTRODUCTION

According to the 2019 Canadian Health Survey on Children and Youth, approximately 2% of Canadian children between the ages of 1 and 17 are diagnosed with autism spectrum disorder (ASD).¹ ASD is a chronic neurodevelopmental disorder that significantly impedes an individual's autonomy, manifesting as a complex spectrum of difficulties.² Individuals with ASD face hurdles that affect various aspects of their daily lives, including communication, social interaction, and sensory processing.² They may struggle with independence and navigating social situations.² ASD is characterized by deficits in social communication and interaction, along with patterns of restricted and repetitive behaviours.² The fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* introduced a severity-based approach, delineating three support levels: Level One (individuals require support), Level Two (individuals require substantial support), and Level Three (individuals require very substantial support).³

ASD is not a one-size-fits-all condition.⁴ The spectrum encompasses a wide range of difficulties, with each individual experiencing ASD uniquely.⁴ This complexity underscores the need for a client-centred approach to oral health care.⁴ This essay aims to empower oral health professionals within a dental practice setting with a profound understanding of ASD and its intricate impact on oral health. By addressing potential reluctance to treat clients with ASD, the essay aims to diminish barriers and improve the overall experience for both professionals and clients.

EARLY DETECTION

Vigilance is imperative in identifying intraoral conditions early on to prevent progression, functional impairment, and tooth loss.⁴⁻⁶ Research indicates that individuals with ASD may have higher rates of caries, attributed to factors such as

medication-induced xerostomia, high sugar consumption, repeated regurgitation, and insufficient oral hygiene practices.^{4,5,7} Individuals with ASD are also more vulnerable to self-inflicted injuries, neglect, and mistreatment.^{4,5} Therefore, practitioners should thoroughly examine all areas of the head and neck to mitigate potential complications and improve overall oral health outcomes.⁴

ORAL HYGIENE

Enhancing oral hygiene for individuals with ASD is essential due to the varied challenges that they have, such as impaired motor skills.^{4,7,8} Tailored approaches such as assessing dexterity levels and recommending modified tools are effective in addressing these challenges.^{4,7} Engaging caregivers in discussions about daily oral hygiene routines and their comfort levels in participating is crucial.⁸ Additionally, encouraging caregiver involvement during demonstrations can improve understanding and implementation of proper oral care techniques at home.⁸ Recent research highlights the potential of internet-based video tutorials in enhancing home care routines, improving oral health outcomes, and fostering independence in maintaining daily oral hygiene habits.⁹ Overall, a combination of personalized recommendations, caregiver engagement, and use of technology may contribute to better oral health outcomes.^{4,7-9}

CHALLENGES AND MANAGEMENT

Individuals with ASD face significant challenges in oral health care settings due to sensory sensitivities, communication barriers, unique behaviours, and dental anxiety.⁴ It is crucial to recognize that each individual may have their own unique set of abilities and difficulties.^{4,7} Addressing these barriers through tailored approaches is essential to promoting positive oral health outcomes.^{4,7}

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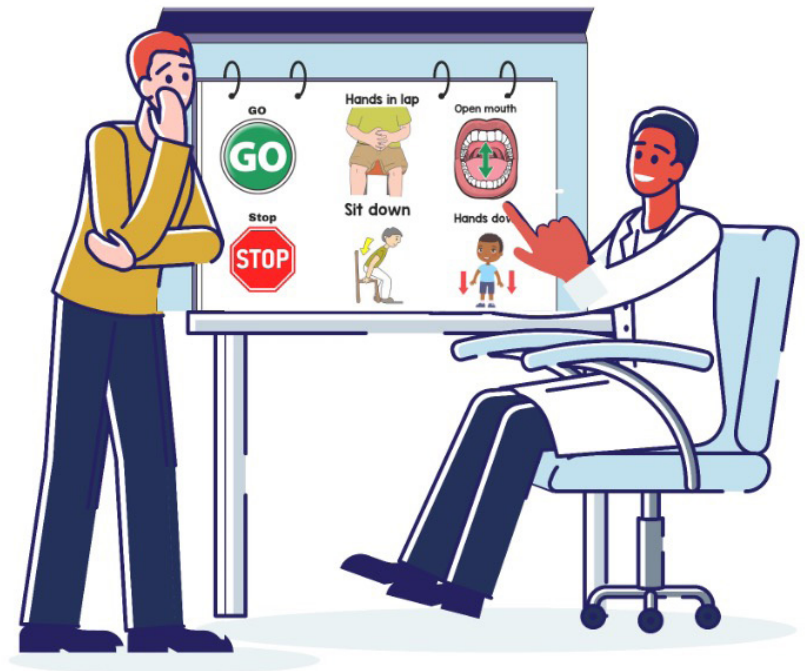
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Sensory Sensitivities

For clients with ASD, discomfort and distress from sensory inputs such as taste, texture, sounds, and sight can be amplified during new or unfamiliar experiences.^{4,8-11} This heightened sensitivity often translates into pronounced aversions to routine oral health care procedures and home care tasks, posing significant obstacles to oral health maintenance.^{4,8-11} The results of a survey of parents of children with and without ASD, published in 2012, revealed that 60% of parents of children with ASD reported issues with dental cleanings, in stark contrast to the 13% of parents of neurotypical children who reported the same challenges.¹² To address this issue, sensory-adapted dental environments (SADE) were implemented to mitigate overstimulation.^{10,11} Adaptations included providing noise-cancelling headphones, employing dental instruments that produce minimal noise, adjusting lighting conditions, and offering distractions such as TV shows, calming videos or music tailored to individual preferences.^{10,11} A 2022 study found that 68% of subjects with ASD were successfully treated in SADE in contrast to only 20% of subjects placed in regular environments.¹⁰ By tailoring environments to meet sensory needs, oral health professionals can ease discomfort and enhance oral care experiences for individuals with ASD.^{4,10,11}

Communication Difficulties

Communication hurdles for clients with ASD arise from difficulties in self-expression, comprehension of expectations, and interpretation of non-verbal cues.^{4,13-15} These challenges impede effective interaction with oral health professionals.^{4,13-15} Such obstacles necessitate proactive collaboration between oral health practitioners and caregivers to develop personalized communication strategies.^{4,13,16} One effective strategy involves the utilization of visual supports, such as picture-based communication techniques.¹⁴⁻¹⁶ These have demonstrated considerable benefits for both verbal and non-verbal individuals with ASD, facilitating more efficient and meaningful interactions during dental or dental hygiene visits.¹⁴⁻¹⁶ Visual supports aid in comprehension of the physical environment, social interactions, and abstract concepts such as time, sequence, emotion, and motivation.¹⁵ As depicted in Figure 1, visual supports are typically organized in three-ring binders, allowing for easy communication and flexibility.^{14,16,17}



▲ **Figure 1.** A provider points to the “open mouth” instruction, indicating that the client is being asked to open their mouth.^{14,16,17}

Through the use of Velcroed images, both clients and practitioners can request or notify each other of wants and needs during appointments.^{14,16} While further research is needed to explore their efficacy and optimal implementation, the integration of visual supports in oral health care holds promise in enhancing communication, reducing frustration, and alleviating anxiety for individuals with ASD.¹⁴⁻¹⁶

Another strategy oral health professionals can employ is the use of visual schedules, which depict the sequence of events using photographs, symbols, and text.^{15,18} These schedules offer a structured roadmap for individuals with ASD, enhancing their ability to navigate tasks and transitions effectively.^{14,15,18,19} By breaking down tasks into smaller, explicit steps, visual schedules facilitate comprehension and alleviate anxiety.^{14,18,19} They can assist oral health professionals in providing a more positive and impactful experience for both clients and practitioners alike, as illustrated in Figure 2.^{14,16,18-20}



▲ **Figure 2.** A step-by-step checklist with images and descriptions for My Dentist Visit.¹⁸⁻²⁰ This schedule provides a detailed breakdown of the dental appointment, including what the client can expect at each stage.¹⁸⁻²¹

Behaviours and Mannerisms

Dental or dental hygiene appointments often pose unique challenges for individuals with ASD, who may exhibit behaviours such as hyperactivity, shortened attention spans, frustration, vocalizations, and unpredictable movements.^{4,7} These behaviours greatly heighten the risk of emotional dysregulation and self-injury, posing a threat to the client's well-being and hindering access to optimal care.^{4,5,7} They may lead clinicians to hesitate in administering necessary treatment or even refuse care altogether.^{4,7} By recognizing and addressing these behaviours, clinicians can establish a more supportive environment for clients with ASD, which consequently benefits both parties.⁴ Supports may include implementing shorter appointment durations that align with clients' attention spans and tolerance levels for frustration.⁴ Collaborating with clients and their caregivers to schedule appointments at the most suitable times may ensure better cooperation and treatment receptivity.⁴ Moreover, research suggests that fidgets and sensory tools may promote calmness and focus during dental or dental hygiene visits.²¹ Fidgets have been demonstrated to yield positive effects in educational settings, and employing them during oral care appointments may similarly aid in maintaining clients' focus and engagement during treatment.²¹ These approaches help reduce the likelihood of challenging behaviours and improve the overall experience for clients with ASD.^{4,21}

Dental Anxiety

Dental anxiety arises from a combination of sensory sensitivities, behavioural obstacles, and communication barriers, presenting challenges in providing oral health care.^{4,7} Customized approaches are essential for effectively addressing dental anxiety.^{4,7} One effective method is the "show, tell, do" technique, which incorporates visual demonstrations, clear explanations, and hands-on experience to alleviate apprehensions.^{4,7} Another effective approach involves the utilization of social narratives. These serve as comprehensive guides to navigating social situations.²² When integrated into oral health care routines, these narratives help individuals with ASD anticipate sensory experiences and understand expectations.²²

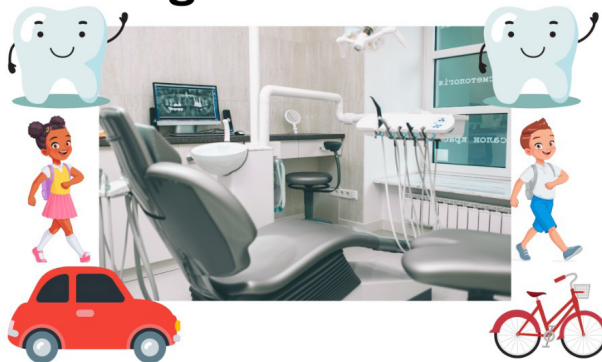
Supplying social narratives, as exemplified in Figure 3, ahead of time facilitates readiness, thus lessening anxiety and promoting a more seamless oral health care experience.^{20,22-24} An important aspect to remember is to include fill-in sections, allowing clients with ASD to personalize the social narrative according to their individual needs.²² Utilizing the "show, tell, do" method alongside personalized social narratives and tailored oral health care can effectively alleviate a variety of anxieties experienced by both providers and individuals with ASD.^{4,7,22}

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Going to the Dentist



The Hygienist will use different tools to look at my teeth and clean them.

The Hygienist might poke and touch my teeth.

This might tickle. It feels funny.

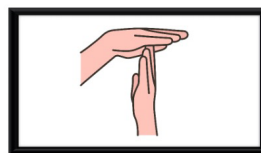
I can use the break card when I need a break.



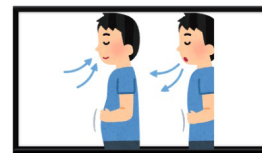
Teeth are important. Dentists and Dental Hygienists are people who help keep my teeth healthy. Sometimes I need to go to the dentist.



If I feel scared or upset, I can:



Ask for a break



take deep breaths



Fill In



Fill In

▲ **Figure 3.** Four examples of social narratives, which describe different experiences and inform the client about what to expect. It is crucial to allow clients to personalize these narratives to suit their individual needs.^{20,22-24}

Other Management Options

When considering management strategies for clients with ASD, it is essential to acknowledge the variety of approaches available, including referrals, restraints, and general anesthetic.^{4,25} However, these particular methods do not align with the philosophy of this essay, which is to equip oral health professionals with proactive strategies to prevent reaching a critical point of no return. Rather than resorting to extreme measures, the focus should be on fostering a supportive and accommodating environment that promotes positive oral health care experiences for individuals with ASD.

CONCLUSION

Recognizing the unique challenges faced by their clients with ASD and employing strategic approaches to address them, oral health professionals can significantly enhance oral health outcomes and overall experiences of individuals with ASD.^{4,8-16,21,22} This essay identified significant challenges such

as sensory sensitivities, communication hurdles, behavioural obstacles, and dental anxieties that must be considered by oral health professionals.^{4,8-16,21,22} Moreover, this essay proposes management strategies involving SADE, employing visual supports and schedules, implementing shorter appointment durations, utilizing the “show, tell, do” method, and integrating social narratives into clinical care.^{4,8-16,21,22} Embracing a client-centred approach enables oral health professionals to create inclusive and supportive experiences for individuals with ASD.⁴ This, in turn, promotes improved oral health outcomes for the client.⁴

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