Caregiver Pre-visit Sensory Intake Form and Perspective on Child Dental Visit Impact

Authors: Jasleen Kaur[1] DDS Student; Cassidy Kramer[1] DDS Student; Jiayi Chen[3] MPH Student; Marcie Rubin[1*] DrPH MPH MPA; Serena Simone[2] DDS MPH; Aaron Myers[1*] DDS MPH

[1]Columbia University College of Dental Medicine, [2]NYU College of Dentistry, [3]Columbia University Mailman School of Public Health, *Faculty Mentor

Background & Aims

- Sensory processing differences: common among children, especially with Autism Spectrum Disorder (ASD), ADHD, or sensory processing disorder
- Children with sensory sensitivities may struggle with stimuli like sound, texture, and light, leading to anxiety, discomfort, or difficulty following instructions
- Pilot and evaluate a Sensory Intake Form (SIF) to help caregivers communicate children's sensory needs, enabling tailored dental visits

Materials & Methods

- From June-August 2024, caregivers (n=57) of a convenience sample of pediatric patients at CU CDM Pediatric Dentistry Clinic completed pre- and post-visit surveys (English/Spanish)
- Pre-visit survey informed dental residents of child's sensory sensitivities for tailored care and sensory modifications
- Descriptive statistics, two-proportion z-test, and Chi-square test performed using SAS
- CUIMC IRB (Protocol# AAAU3628)

Results

- Comfort modifications: dimming lights, music, deep pressure devices, sensory toys (6.3% each), sunglasses (12.5%)
- 77.2% of caregivers rated the visit as excellent in the post-survey, compared to 45.6% in pre-visit surveys ($p<0.05$)
- 79.0% of caregivers reported visit was tailored to their child's need in the post-survey, compared to 50% who expected tailored care in the pre-visit survey ($p<0.05$)
- After sensory modifications, 4 of 9 patients with ASD had no distress; 3 had minor discomfort (NS)
- 1 in 3 caregivers of children with ASD reported a shift from "poor" past visits to "good" or "excellent" (NS)

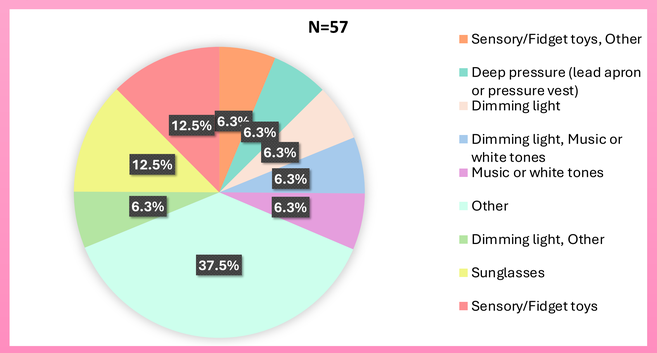
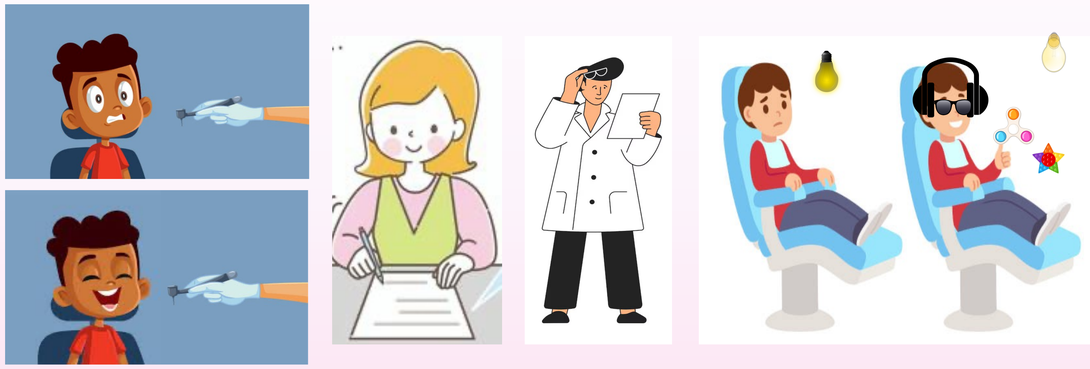


Figure 1. Modifications Used to Enhance Patient Comfort

Children with developmental disabilities may struggle with dental visits due to **oral aversion, unfamiliarity** with the environment, and **sensory sensitivities.**



Sensory Adapted Dental Environment modifies **visual, tactile, and auditory stimuli** to help children feel more **comfortable.**

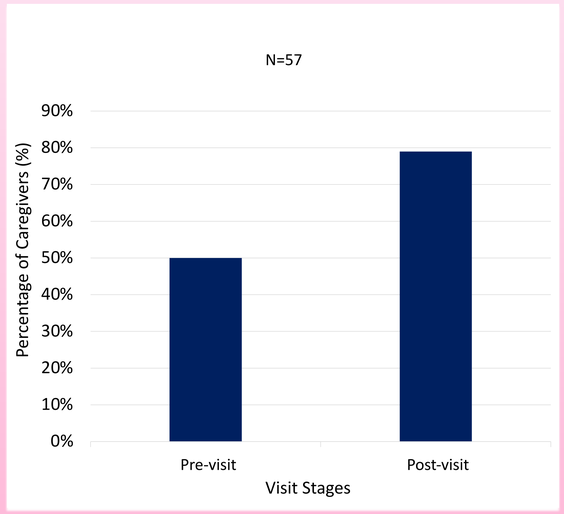


Figure 2. Comparison of Pre-Visit Expectations vs. Post-Visit Satisfaction

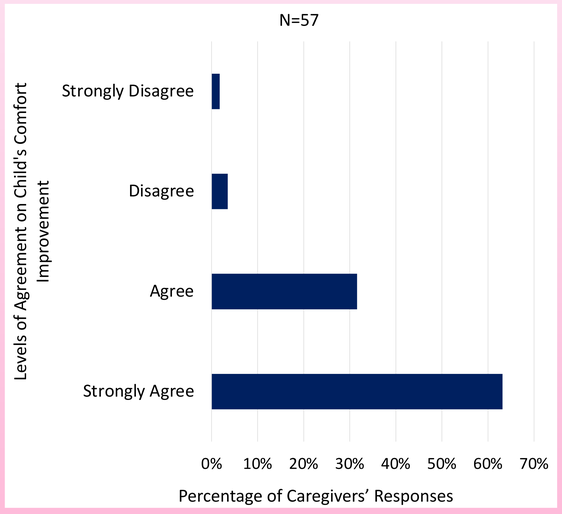


Figure 3. Parent-Reported Changes in Child's Comfort Level During Visit

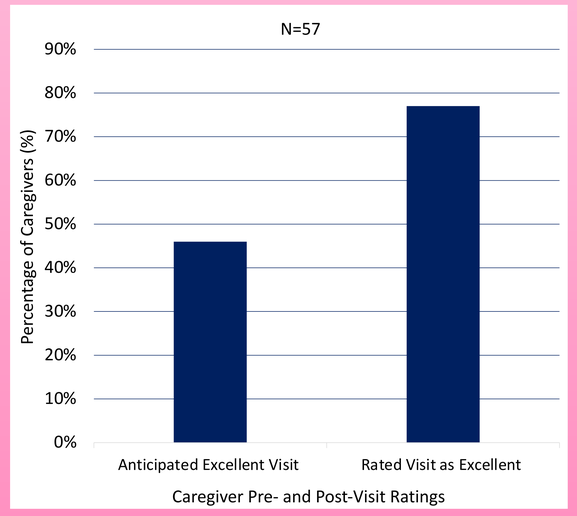


Figure 4. Caregivers' Ratings of the Dental Visit (Pre-visit vs. Post-visit)

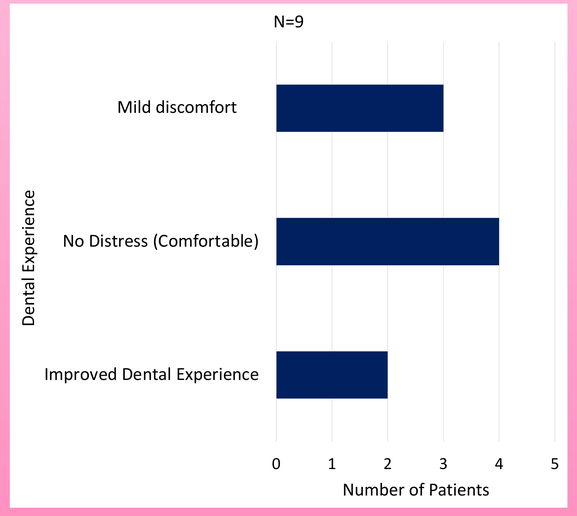
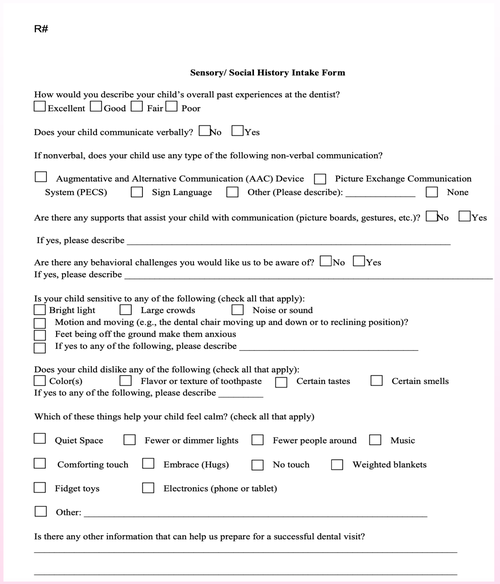


Figure 5. Effects of Sensory Modifications on Dental Experience in Patients with ASD



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Sensory/ Social History Intake Form

How would you describe your child's overall past experiences at the dentist?
☐Excellent ☐Good ☐Fair ☐Poor

Does your child communicate verbally? ☐No ☐Yes

If nonverbal, does your child use any type of the following non-verbal communication?

☐ Augmentative and Alternative Communication (AAC) Device ☐ Picture Exchange Communication System (PECS) ☐ Sign Language ☐ Other (Please describe): _____ ☐ None

Are there any supports that assist your child with communication (picture boards, gestures, etc.)? ☐No ☐Yes

If yes, please describe _____

Are there any behavioral challenges you would like us to be aware of? ☐No ☐Yes
If yes, please describe _____

Is your child sensitive to any of the following (check all that apply):
☐ Bright light ☐ Large crowds ☐ Noise or sound
☐ Motion and moving (e.g., the dental chair moving up and down or to reclining position)?
☐ Feet being off the ground make them anxious
☐ If yes to any of the following, please describe _____

Does your child dislike any of the following (check all that apply):
☐ Color(s) ☐ Flavor or texture of toothpaste ☐ Certain tastes ☐ Certain smells
If yes to any of the following, please describe _____

Which of these things help your child feel calm? (check all that apply)

☐ Quiet Space ☐ Fewer or dimmer lights ☐ Fewer people around ☐ Music
☐ Comforting touch ☐ Embrace (Hugs) ☐ No touch ☐ Weighted blankets
☐ Fidget toys ☐ Electronics (phone or tablet)
☐ Other: _____

Is there any other information that can help us prepare for a successful dental visit?

_____

_____

Key Findings

- SIFs help providers tailor visits to children's sensory needs, improving patient-provider interactions
- Caregivers reported improved dental experiences and greater satisfaction after sensory modifications
- Most caregivers felt providers effectively adapted visits to meet their child's sensory needs
- Most children with ASD showed comfort and minimal distress after sensory adjustments

Next Steps

- Expand sample size
- Monitor children's behavior across multiple dental visits to evaluate experience from sensory modifications
- Refine the SIF using caregiver feedback
- Use of the same questions in the pre- and post-visit surveys

References

Stein Duker, L. I., Como, D. H., Jolette, C., Vigen, C., Gong, C. L., Williams, M. E., Polido, J. C., Floríndez-Cox, L. I., & Cermak, S. A. (2023). Sensory Adaptations to Improve Physiological and Behavioral Distress During Dental Visits in Autistic Children: A Randomized Crossover Trial. *JAMA network open*, *6*(6), e2316346. https://doi.org/10.1001/jamanetworkopen.2023.16346

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