

Background

- Oral health is a fundamental component of children's physical and mental well-being.¹
- Autistic children face elevated dental health risks,² which may be complicated by multiple barriers.^{3,4}
 - In addressing these challenges, modifications to the physical dental environment have shown promise.⁵
- Prior research has explored the challenges of dental visits for autistic children.⁶
 - However, none have used a framework to identify the environmental barriers & facilitators to dental care.
 - The International Classification of Functioning, Disability and Health (ICF) is a framework for understanding human functioning, with a broad lens in defining the environment.⁷

Purpose

To synthesize existing qualitative literature to identify environmentally-related barriers and facilitators to dental care for autistic children using the ICF framework.

Methods

- Searched PubMed, Scopus, CINAHL, Web of Science, & PsycINFO databases.
- Inclusion criteria:
 - Qualitative articles written in English, describing the experiences of autistic children (≤18 yrs), their caregivers, and/or dental health professionals (DHPs) treating them, published through March 2025.
- Exclusion criteria:
 - Dental care at home, review articles, abstracts, commentaries, conference proceedings, dissertations, or books.

Search

Synthesis and Analysis

- Using **template coding**, findings were deductively mapped to the ICF's five environmental categories.
- Using **thematic analysis**, themes & subthemes were inductively developed within each ICF category.

Results (n=16 articles included)

Support & Relationships

Support-Related Barriers	Support-Related Facilitators
<ul style="list-style-type: none"> Lack of a formal <u>dentist referral system</u> Caregivers report challenges with: finding <u>community resources</u>, <u>transportation</u> to the clinic, managing dental visits without <u>hired support</u> 	<ul style="list-style-type: none"> <u>Rapport building</u> between child & DHP <u>Caregiver-led practice and preparation</u> (e.g., social story, hands-on practice with instruments, visual aids) <u>DHP-led practice and preparation</u> (e.g., desensitization visits, predictable visit structure, allowing child to bring comfort item to visit)
Communication-Related Barriers	Communication-Related Facilitators
<ul style="list-style-type: none"> <u>DHP communication style</u> (e.g., abrupt actions without explanation, use of jargon, not listening to caregivers, lack of communication with caregiver or child) <u>Caregivers not disclosing</u> child's diagnosis to DHPs 	<ul style="list-style-type: none"> Use of <u>simple, concrete instructions</u> by DHP Using <u>communication as a distraction</u> during care

Health Services, Systems & Policies

Barriers	Facilitators
<ul style="list-style-type: none"> Lack of <u>DHP training</u> provided about autism care Long <u>wait times</u> & requiring <u>additional time</u> during care High or uncertain <u>dental costs</u> (e.g., specialized interventions [desensitization], lack of insurance) <u>Discontinuity of care</u> (e.g., frequent provider changes) 	<ul style="list-style-type: none"> Improve <u>DHP knowledge</u> (e.g., collaborating with other healthcare providers, increase experience treating autistic children) Provide <u>additional time</u> during care to support communication, breaks, and familiarization

Attitudes

Barriers	Facilitators
<ul style="list-style-type: none"> Caregivers report <u>not prioritizing</u> dental care as well as feeling <u>blamed</u> for their child's oral health and behavior DHPs lacking the <u>flexibility</u> required to identify and implement necessary accommodations to support care 	<ul style="list-style-type: none"> DHPs' <u>flexibility and openness</u> to modifying dental procedures based on the child's needs

Products & Technology

Barriers	Facilitators
<ul style="list-style-type: none"> <u>Sensory discomfort</u> caused by tools (e.g., prophylaxis brush, suction) and procedures Adverse effects of <u>sedation</u> 	<ul style="list-style-type: none"> Use of <u>sensory-based modifications</u> to minimize sensory discomfort (e.g., sunglasses, headphones, weighted blanket for deep pressure)

Physical Environment

Barriers	Facilitators
<ul style="list-style-type: none"> <u>Overstimulating and cluttered</u> environments <u>Sensory discomfort</u> caused by the physical environment (e.g., lights, sounds, tastes, movement of chair) Use of <u>restraint</u> (both papoose and human) against caregiver's will 	<ul style="list-style-type: none"> Clinic environments that provide <u>opportunities for distraction</u> (e.g., video games, cartoons) <u>Sensory-friendly clinic environments</u> that minimize noxious sensory stimuli (e.g., sunglasses, headphones) and/or provide calming sensory stimuli (e.g., weighted blanket, fountains)

Discussion

- Overall, findings were barrier-focused, consistent with broader ASD healthcare literature.^{8,9}
- Clear, structured communication and trust-building repeatedly emerged as central to successful visits and sustained engagement, yet they were inconsistently implemented across dental settings, similar to other settings (e.g., primary care).¹⁰
- Limited autism-informed training and variable provider attitudes contributed to treatment refusal, reduced quality of care, and communication breakdown, highlighting the need for stronger training and mentorship pathways.
- System constraints (e.g., time pressure, cost, continuity of care) limits providers' ability to provide individualized care – meaningful practice changes will require supportive reimbursement and policy alignment.

Conclusion

- This ICF-based synthesis highlights the complex autistic children's dental experiences, shaped by *interacting environmental factors* (communication, sensory fit, provider readiness, time/resources), not a single barrier.
- Findings support the need for **individualized, interdisciplinary, and multidimensional approaches** to reduce environmental barriers.
- Future research should evaluate DHP training protocols, sensory-focused innovations (including tools/instruments), and the effectiveness of combined supportive care strategies to improve care for autistic children during dental care.

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