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Oral Health of Children with Autism & Nutritional Disorders

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Background

- Children with Autism may exhibit restrictive eating behaviors, commonly linked to **sensory sensitivities.**
- Certain **nutritional deficiencies** (e.g. vitamin c) have been observed in people with Autism.
- Several nutrient deficiencies are known to present with **oral manifestations**, such as mucosal changes, glossitis, angular cheilitis, or enamel defects.
- **Pediatric dentists** frequently assess diet as part of routine oral health care for Autistic children.
- However, **limited literature** exists specifically addressing the oral effects of nutritional deficiencies in children with Autism who present with restrictive eating.
- There is a need for **greater awareness and guidance** in recognizing signs of nutritional deficits during dental visits.

Purpose of the Review

1. To summarize current literature on oral health and nutrition in children with Autism.
2. To encourage pediatric dentists to conduct dietary screenings & refer for medical/nutritional evaluation when deficiencies are suspected.

Methods

- Comprehensive literature search was conducted in **Ovid, Medline, Embase, and Web of Science**.
- Search focused on the past **10 years**, targeting studies on **oral manifestations of nutritional deficiencies in children with Autism**.

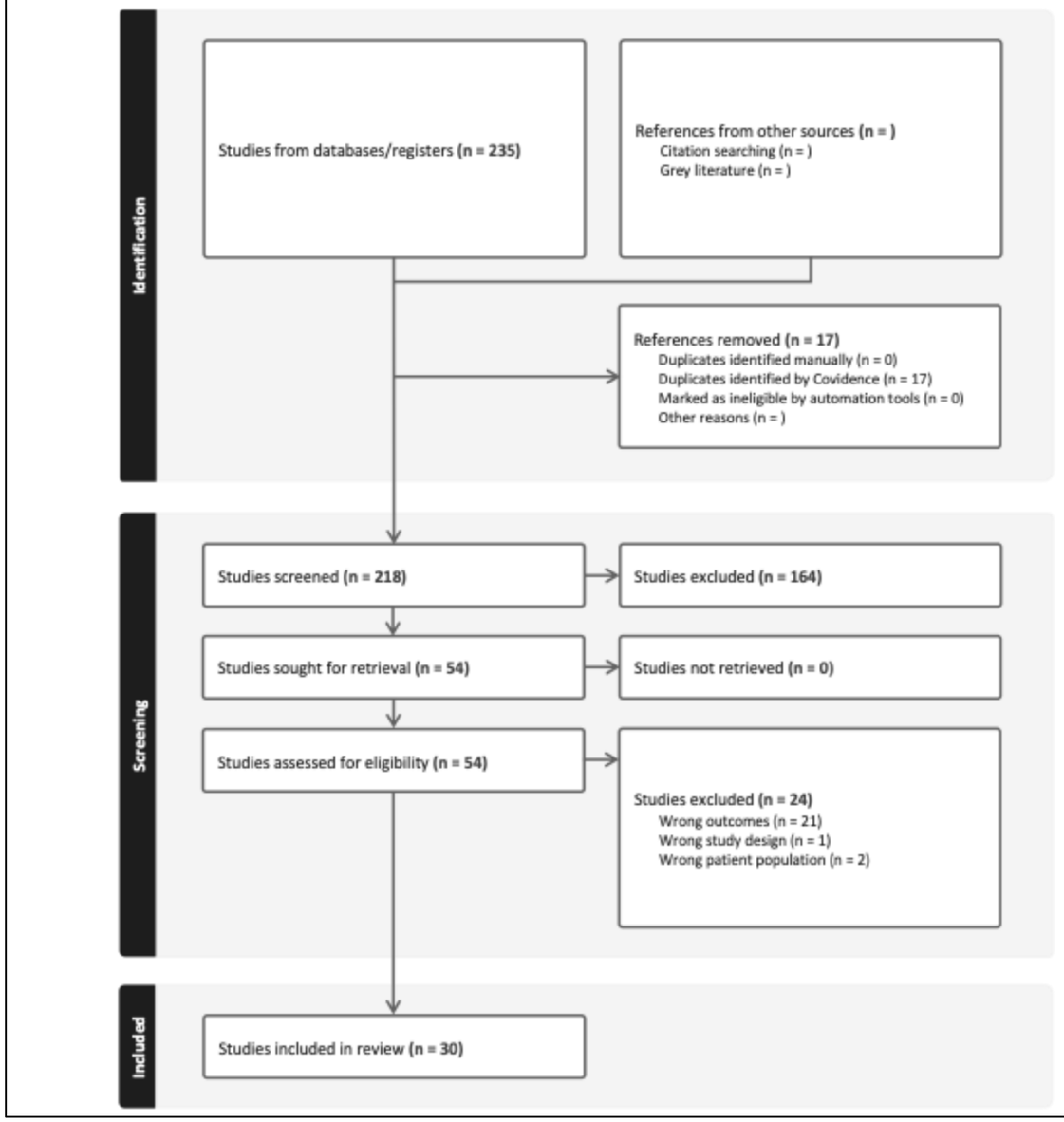
Inclusion criteria

- English-language articles
- Children aged **0–18 years** with a diagnosis of autism
- Mention of **oral conditions or findings**

Exclusion criteria

- Studies that lacked discussion of oral manifestations, even if related deficiencies were described.
- An **integrative review approach** was used to extract key themes.
- Themes emphasized **oral signs of nutritional deficiencies** that pediatric dentists can identify during **dietary and clinical assessments** in routine care.

Summary of the Literature



- **Twenty-six** articles identified in the literature review were case reports of vitamin C deficiency (Scurvy) among children with Autism and restrictive eating.
  - Case reports regarding patients were hospitalized with **gait concerns**, among other systemic findings.
  - **Gingivitis, gingival bleeding, gingivostomatitis, gingival hyperpigmentation,** and **gingival hyperemia** were all noted.
- **Three** articles reviewed dietary habits of children with Autism, their eating behaviors, and prevalence of caries.
  - The first identified correlations between **increased prevalence of caries** and in children with higher **Brief Autism Mealtime Behavior Inventory** (BAMBI) scores.
  - The second study demonstrated children with Autism preferred **salty, spicy** and **sweet foods** as compared to the control, and had fewer caries than the control, however the authors did not analyze a correlation between these findings.
  - The third study assessed **sugar exposure** through dietary review and found **no correlation** between sugar exposure in the diet and **DMFT scores** for children with Autism.
- **One** study assessed the association between **feeding problems** in children with Autism and their **oral health status.**
  - The study concluded that children with increased findings of **malocclusion** and **altered community periodontal index.**

Conclusions

- Comprehensive dietary review is an important part of an oral health exam.
- When gingival signs are noted, further exploration of diet should be explored.
- Inquiring about restrictive eating habits in Autistic children should be part of the pediatric dentist's dietary review with patients and families.
- Pediatric dentists should consider more than cariogenicity when reviewing diet.

Implications

- Pediatric dentists see patients at regular intervals, several times each year. This high frequency of contact and dietary review creates a unique position for pediatric dentists to detect changes in eating patterns or emergence of restrictive habits.
- Pediatric dentists should make appropriate referrals to the pediatrician or a nutritionist when restrictive eating patterns are noted.

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