Development of Social Media Nutrition Intervention Components: Perspectives from a Narrative Literature Review on a Global Outlook of Problematic Mealtime Behaviors in Children with Autism Spectrum Disorder

Evelyn Spiller, Jana Kandil, Syed Hasan
University of South Florida, College of Public Health

Background

- Children diagnosed with autism spectrum disorder (ASD) tend to display impaired communication, environmental sensitivity, repetitive behaviors, and reduced attention.
- About 1 in 160 children have ASD globally.
- Children with ASD may demonstrate adverse mealtime behaviors stemming from:
  - Sensory sensitivity
  - Neophobia
  - Opposition of the general appearance of certain foods
- ASD children are at a greater risk for acquiring lifelong illnesses associated with poor diet, such as obesity and nutritional deficiencies, than children in the general population.
- Mealtime behaviors in children with ASD have begun to be observed among low-and-middle-income countries possessing little existing data on autism.

Methods

- Narrative review utilizing the Databases PubMed and Web of Science.
- Included publications written in English between 2012 and 2022.
- Studies discussing single-subject interventions or children with comorbid eating or feeding disorders were excluded.
- Initial screening of 44 articles preformed through title/abstract review with subsequent full text review following.
- A total of 20 articles were identified for this review.
- Social media component is part of a pilot nutrition intervention randomized control trial.
- Two private Facebook groups are in development with feeding resources and lesson materials routinely posted.
- ASD Nutrition Study page has been created on Facebook and the ASD Nutrition Study page has been developed on Facebook and two private groups were created for Autism Eats and We Can! Enhanced Usual Care (EUC) groups.
- A list of external resources such as video links and images on healthy eating will be utilized.

Findings

- Obesity, frequent constipation, Vitamin A deficiency, and iron deficiency are common in young children with ASD due in part to:
  - Sugary snack preferences; refusing vegetables, meats, and fibrous foods.
  - Difficulty adapting to the introduction of new foods.
  - ASD-specific characteristics were shown to be heightened in children demonstrating problematic eating behaviors, in particular:
    - Reduced interest in social engagement.
    - Object fixation.
  - Resistant children often wandered away from the table during meals.
  - South African caregivers were reported to use television as both a reward and distraction.
  - In Hong Kong, caregivers were observed to educate their child on food-related topics by reading stories to them.

Conclusions

- Poverty and food insecurity influence the adoption of negative reinforcement-based feeding approaches from caregivers.
- Inclusion of family beliefs and acknowledgement of their capacity is essential when developing nutrition interventions in these children.
- Children with ASD demonstrating adverse eating behaviors may have enhanced characteristics of autism that must also be considered.
- Data on this subject remains scarce among low-income countries.
- Social media can be a cost-effective tool to disseminate nutrition education interventions for children with ASD globally.

References