Do Atypical Food Preferences in Children with Autism Differ by Severity?

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To the Editor: There is a need to delineate some of the risk factors and correlates of feeding problems in autism, specifically whether atypical food preferences in children with autism differ by severity of autism. Fifty children with Autism spectrum disorder (ASD) (4–12 y) were enrolled from the outpatient services of a pediatric hospital. The Childhood Autism Rating Scale (CARS) was used to define severity of autism and two groups were identified: mild/moderate and severe. Feeding problems were measured by the Children's Eating Behavior Inventory (CEBI) and it yields two scores: total score and number of feeding problems [1]. The diet software was used to calculate the daily nutrient intake. The study was cleared by the Institute ethics board.

The two ASD groups were matched for age, sex, residence, education of mother, and socioeconomic status. Children with severe ASD, relative to the milder symptoms group, had significantly higher scores on the CEBI ($t = 4.12$, $P = 0.0001$) and a greater number of feeding problems ($t = 3.12$, $P = 0.003$). Specific micro-nutrient inadequacies were found; and the severe group had lower levels of sodium ($t = 2.48$; $P = 0.017$), copper ($t = 2.73$; $P = 0.009$), iron ($t = 1.93$, $P = 0.05$), and thiamin ($t = 2.10$, $P = 0.041$). Growth of children with severe ASD was more compromised and they were shorter ($t = 2.74$, $P = 0.009$) and lighter ($t = 2.68$, $P = 0.01$) relative to the mild/moderate group. Step-wise multivariate regression analysis revealed that 39.2% of the variance in

the total CEBI score was predicted by the CARS score and z weight score of the child ($F = 15.17$, $P = 0.0001$).

Findings suggest that children with severe autism had significantly greater mealtime problems and parents reported pre-occupation with feeding issues, stress, and disruption of family mealtime routines [2, 3]. Previous studies too have found that mealtime behavior problems compromise healthy eating behaviors and lead to lower quality diets, malnutrition, and poor growth parameters [3–5]. Our study extends these findings and suggests that there is variability even among the ASD group, and the clinically severe ASD cases may be at a higher risk for experiencing feeding and nutritional inadequacies leading to growth failure. There is a need to increase food variety and intake adequacy to promote healthy eating and growth among children with autism.

Compliance with Ethical Standards

Conflict of Interest None.

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