How Mealtime Behaviors Affect Children With Autism Spectrum Disorder: A Preliminary Analysis of a Randomized Control Trial

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Background: Problematic mealtime behaviors such as selective eating, not staying seated, or expelling foods are common among children with autism spectrum disorder (ASD). However, most children with ASD included in previous studies are older than 3 years.

Objective: To examine problematic mealtime behaviors of children with ASD under 3 years of age using baseline data of an on-going randomized control trial (RCT).

Study Design, Settings, Participants: Baseline data of an on-going RCT were compared to the reference data of typically developing children. Parent-child dyads enrolled in the Part C Early Intervention (EI) Services were recruited for the RCT study, and 37 parents of children with ASD under 3 years completed the mealtime behavior survey.

Measurable Outcome/Analysis: The Brief Autism Mealtime Behavior Inventory (BAMBI) questionnaire, which covers three sub-domains (Limited-Variety; Food-Refusal; Features-of-Autism) was used. A higher score indicates more mealtime behavioral issues. Descriptive statistics and one-sample t-test using reference values from typically developing children for total score and sub-domain scores were performed for data analysis.

Results: The total problematic mealtime behavior score (53.2 ± 9.3) was significantly higher than the reference (32.5 ± 5.0), indicating significantly elevated problematic mealtime behaviors. There were significantly higher mean scores in Limited-Variety (10.5, 95% CI [8.4, 12.3]), Food-Refusal (6.4, 95% CI [5.1, 7.7]), and Features-of-Autism (3.7, 95% CI [2.7, 4.6]) sub-domains compared to the reference values (all < 0.001). More than 50% of the parents identified “dislikes certain foods and won’t eat them (88%)”; “prefers the same foods at each meal (63%)” “do not accept/prefer a variety of foods (51%)”; and “turning the face/body away from food (51%)” as a child’s significant mealtime problem.

Conclusion: Our findings indicate significantly elevated problematic mealtime behaviors among young children with ASD. It is important to address these needs through an EI program to reduce potentially negative nutritional and health outcomes. Our future study will examine whether the implementation of a nutrition education intervention will significantly improve mealtime behaviors can then be applied to a wider audience.

Funding: NIH

How Much Is Too Much? Increased Formula Intake Linked to Rapid Weight Gain in Infants

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Background: Rapid weight gain (RWG) in infants increases the risk for obesity later in life.

Objective: The main goal of the study was to examine prevalence of RWG and its association with feeding practices among low-income infants.

Study Design, Settings, Participants: Mother-infant dyads (n = 216) were recruited from a pediatric clinic that mainly served Medicaid recipients. Mothers were interviewed and 24-h feeding recalls were conducted at 6 and 9 months of infant’s age. Infant’s weight and length measurements were retrieved from the clinic’s medical records.

Measurable Outcome/Analysis: RWG was defined as a change of more than 0.67 standard deviations in weight-for-age z-score between 6 and 12 months. Utilizing NDSR program, total calorie intake, calories from formula/bottle feeding vs. breastmilk vs. complementary foods, were calculated. Descriptives and bivariate t-test were conducted using SPSS v. 28.0.1.1(15).

Results: Of the total participants, 37% and 39% were African American and Latino, respectively. Most (79%) of the participants were receiving WIC. About 39% of infants (n = 75) at 9 months were receiving breastmilk (either fully or in addition to formula). About 23% of the infants had RWG between 6 and 12 months. In comparison, significant differences in total calorie and calories from formula were found at 6 and 9 months between those who had RWG versus who did not. For instance, at 6-month, average calorie intake among RWG group was 560.65 (+/- 315.78) vs. no RWG group (392.53 +/- 346.94, p < 0.05). In examining the pattern, the frequency of formula intake was significantly higher while number of times breastfed was lower among RWG group compared to their counterparts.

Conclusion: Formula feeding is associated with increased energy intake and RWG in late infancy. Continuation of breastfeeding post 6 months can help reduce the risk for RWG among infants. Nutrition education on formula and related feeding practices is vital in ensuring normal growth rate during infancy.

Funding: NIH

Medical Residents That Learn to Assess Patients for Nutritional Deficiencies Can Better Mitigate Chronic Disease

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