Children with autism at significant risk for feeding problems and nutritional deficits

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Healthy eating not only promotes growth and development, but also provides important opportunities for children to socialize during meals. A new, comprehensive analysis of feeding behavior in children with autism spectrum disorders (ASD) indicates that these children are five times more likely to have a feeding problem, including extreme tantrums during meals, severe food selectivity and ritualistic mealtime behaviors.

Researchers at Marcus Autism Center and the Department of Pediatrics at Emory University School of Medicine conducted a comprehensive meta-analysis of all published, peer-reviewed research relating to feeding problems and autism. Examination of dietary nutrients showed significantly lower intake of calcium and protein and a higher number of nutritional deficits overall among children with autism.

The results are reported in the Feb. 1, 2013, online early edition of the Journal of Autism and Developmental Disorders.

"The results of this study have broad implications for children with autism," says William Sharp, PhD, a behavioral pediatric psychologist in the Pediatric Feeding Disorders Program at Marcus Autism Center and assistant professor at Emory University School of Medicine. "It not only highlights the importance of assessing mealtime concerns as part of routine health care screenings, but also suggests the need for greater focus on diet and nutrition in the autism community."

Chronic feeding problems increase a child's risk for poor medical and

developmental outcomes, including malnutrition, growth retardation, social deficits and poor academic achievement. Emerging evidence suggests the feeding problems and dietary patterns associated with autism may place this population at risk for long-term medical complications, including poor bone growth, obesity and other diet-related diseases (e.g., cardiovascular disease) in adolescence or adulthood.

While parents of children with autism frequently express concern regarding how few foods make up their child's diet, the systematic review and meta-analysis led by Sharp and colleagues represents the first attempt to combine outcomes from studies providing empirical evidence about levels of feeding problems and nutrient intake in children with autism compared with peers.

"Despite the risk of long-term medical issues, as well as frequent caregiver concern regarding the quality of their child's diet, feeding problems are often overlooked in relation to other areas of clinical and research concern in the autism population," says Sharp.

"Our findings have immediate and important implications for the work of practitioners serving children and families with autism, who in the absence of such information, may struggle to address parents' concerns, or, worse, may fill the void with alternative treatments that may be ill-conceived or even harmful to children and families."

One important example is the highly prevalent adoption of elimination diets as a form of treatment for autism, which, the data appear to suggest, could further exacerbate the nutritional risks for children with autism. With this in mind, Sharp and colleagues used this information to develop autism-specific recommendations to guide future clinical and research activities in this area.

These recommendations included screening for feeding concerns and nutritional deficits/excesses in addition to measurement of gross anthropometric parameters as part of routine medical evaluations for children with ASD. They also suggest healthcare providers review the potential consequences of pursuing an elimination diet with consideration of the child's unique feeding and nutritional presentation.

"This study is the first of its kind to quantify the impact of feeding disorders in the autism population," says Sharp. "We hope that our work helps guide clinical practice, as well as provides a roadmap for future research in this area."

Now that the magnitude of the feeding disorders in the autism population has been defined, Marcus Autism Center is now using these findings to expand the research program for children with autism and feeding disorders seen through its Pediatric Feeding Disorders Program.

Future areas of research include the more detailed analysis of the health burden associated with atypical dietary patterns, such as prevalence of obesity and obesity related disorders, as well as determining the social implications and family stress associated with chronic feeding problems in this population.

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