

**Eating In Children With Autism Spectrum Disorder Following Modified Sequential Oral Sensory  
Approach To Feeding**

**Author/Presenter:** Martha Blaess, MA, CCC-SLP  
**Collaborator:** Jonathan Baldwin, MS, CNMT, RT(CT)  
**Research Mentor:** Allen Knehans, PhD

*Allen Knehans*

2/21/20

---

Signature of Research Mentor – Allen Knehans, PhD

## **Eating In Children With Autism Spectrum Disorder Following Modified Sequential Oral Sensory Approach To Feeding**

M Blaess, MA, CCC-SLP<sup>1</sup>, JD Baldwin, MS, CNMT, RT(CT)<sup>2</sup>, A Knehans, PhD<sup>3</sup>

<sup>1</sup>Department of Nutritional Sciences, OUHSC, Oklahoma City, OK

<sup>2</sup>Department of Medical Imaging and Radiation Sciences, OUHSC, Oklahoma City, OK

<sup>3</sup>College of Allied Health, Department of Nutritional Sciences, OUHSC, Oklahoma City, Oklahoma

**Funding Source:** College of Allied Health Student Research and Creativity Grant

**Background:** Children with autism spectrum disorder (ASD) often have a restricted range of foods which impacts nutrition and mealtimes behaviors. These strict preferences in regards to sensory properties of foods can make mealtimes a stressful experience for families.

**Purpose:** The primary objective of this pilot study was to compare feeding and mealtime behaviors among children with ASD on pre-, mid-, and post- feeding intervention. This study will allow the researcher to understand the feasibility in conducting a similar study with a larger sample size and potentially modified methods in order to identify effective treatment methods to improve mealtime and feeding behaviors for children with ASD and relieve stress in their families.

**Methods:** The IRB approved this study (Ref #11240). To date, two children diagnosed with ASD, ages 3.5 and 9.0 years, were recruited. The Behavioral Pediatric Feeding Assessment Scale (BPFAS), the Sensory Eating Problems Scale (SEPS), and a Food Range Diary measured changes in nutritional and mealtime behaviors. A 15-week modified Sequential Oral Sensory (SOS) Approach to Feeding intervention, designed to improve food acceptance and increase oral-motor skills in children, was implemented. Parents completed the BPFAS, SEPS and Food Range Diary at the first (pre), eighth (mid), and fifteenth (post) weeks of intervention. We anticipate a small sample in the completed work (n=3-6), and plan for non-parametric analysis of the data. Currently, descriptive statistics are reported for weeks 1 and 8.

**Results:** Food Range Diary total foods increased by an average of 9 foods from pre- to mid-study ratings. Parents reported an increase in positive nutrition and mealtime behaviors based on BPFAS responses. Maintenance and/or a decrease in SEPS (measure of problem eating) overall category ratings was reported, except for the Single Food Focus and Temperature Sensitivity categories which increased. With the current sample size (n=2) significant statistical differences were not found.

**Conclusions:** A modified SOS Approach to Feeding intervention could increase positive nutrition and mealtime behaviors in children with ASD following 8 weeks of intervention. Results indicate an increase in parent awareness of child nutrition and mealtime behaviors. Recruitment continues and we will test for differences among all variables of interest. This data serves as pilot data to inform methods of a larger study with adequate power.

**Relevance to Allied Health:** These findings are important as many allied health professionals serve children with ASD and having an understanding of feeding difficulties can assist in effective treatment plans and expectations. Allied health professionals should be aware of the potential feeding challenges experienced by their patients with ASD in order to make appropriate recommendations and referrals.

### **Speaker Bio**

Martha Blaess is a second-year PhD student in the Department of Allied Health Sciences, Nutritional Sciences emphasis. She earned a Master of Arts in Speech-Language Pathology (SLP) from OUHSC. She works full-time as a pediatric speech-language pathologist at Speech Pathway in Oklahoma City. Her caseload consists of patients with a variety of speech-language disorders, including feeding and swallowing disorders. Martha is trained in the Sequential Oral Sensory (SOS) Approach to Feeding and utilizes the approach, along with other feeding methods, in her feeding and swallowing treatments. Her long-term career goal is to become a Registered Dietitian Nutritionist (RDN) and to combine her expertise as an SLP and RD to serve the children of the State of Oklahoma with ASD with a unique interprofessional approach.

### **Learning Objective**

1. Following this presentation, attendees in this interprofessional audience will better understand mealtime and feeding challenges experienced by children with autism spectrum disorder and be able to refer families to an appropriate health care program to improve the mealtime situation experienced by the child and family.