

The Sequential Oral Sensory (SOS) approach intervention in treating children with Autism Spectrum Disorder (ASD) and limited food repertoire



Background

- Feeding problems in children diagnosed with autism spectrum disorder (ASD) has been found to vary from 46-89%, with significant variability in feeding patterns.¹ Feeding problems can lead to failure to thrive, nutritional deficiencies, growth retardation, social deficits and poor academic achievements. Common feeding problems are typified by limited food repertoire, food refusal and high frequency single food intake
- The Sequential Oral Sensory (SOS) approach which is a multidisciplinary program for assessing and treating children with feeding and weight problems. This program uses a systematic desensitization hierarchy of skills necessary for children to progress with eating various food textures. The technique is patient controlled, where the patient is “allowed to move away” from the exposure.



Objective

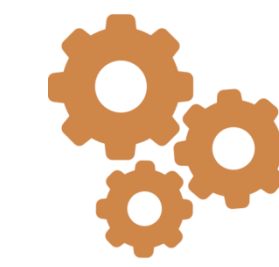
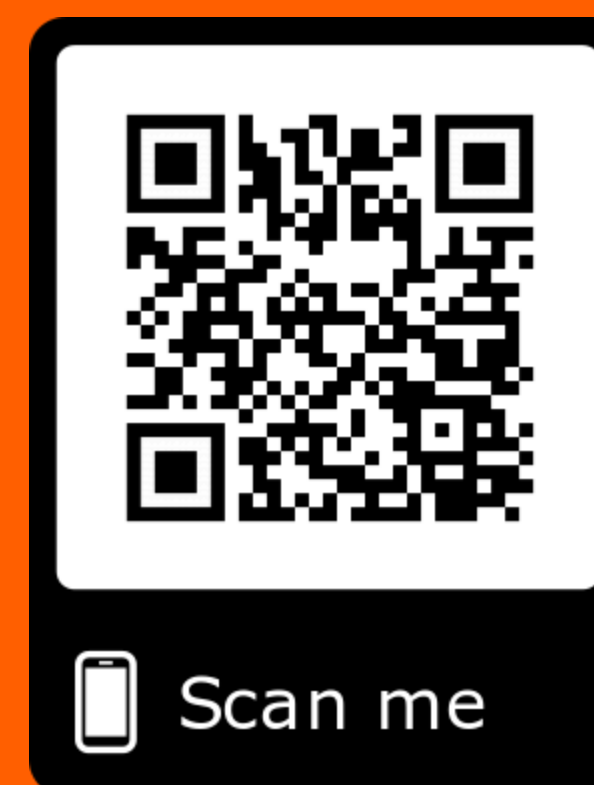
This study evaluated the feasibility of a group-based Sequential Oral Sensory (SOS) Approach intervention to address food selectivity (FS) in children diagnosed with Autism Spectrum Disorder (ASD).



Project Team

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Children with autism spectrum disorder explored more new foods when participating in the Sequential Oral Sensory (SOS) program but the gains were not sustained over time.



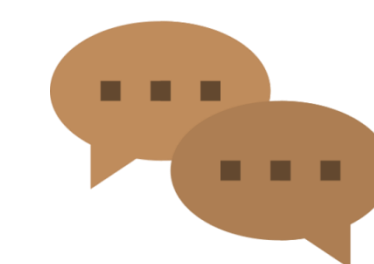
Methods

- Ten children (4-8years) with ASD and FS were randomly assigned to a group-based SOS approach intervention and nine children to the comparison group (parent education group).
- The intervention included 1 hour weekly sessions over a 12 week period.
- To receive randomized treatment in this study, subjects must have met all of the following characteristics:
 - Children diagnosed with Autism Spectrum Disorder
 - Age 60 months - 84 months
 - Child who is physically able to observe others in a group setting
 - Children identified as having limited food repertoire < 20 food in dietary repertoire
 - Test of Adaptive function: Vineland Adaptive Behavioural Scale- 2nd Edition form13
 - Child and caregiver/ parent committed to attend 12 sessions
 - Parents are fluent in English
 - Parent total Difficult Child score on the Parental Stress Index short form14 is above the 90th percentile (which is deemed clinically significant)



Results

1. Participants in the SOS approach group had a mean baseline increase in up to 3.6 foods after 12 weeks of intervention as compared to baseline (mean baseline to week 12 change: 3.6 foods, 95% CL1.3;6.0, p=0.008).
2. This trend was maintained to a lesser extent at week 24 (mean baseline to week 24 change: 1.6 foods, 95% CL 0.3 to 2.9, p=0.03).
3. Participants in the comparison group showed no increase in number of foods eaten over the study period.



Conclusion

- Feasibility indicators suggest that group-based SOS approach intervention has the potential to be implemented in a large study. Parent education as an intervention option was not deemed sufficient by participants.