

Pediatric Feeding via Teletherapy Intervention

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PURPOSE: This research study examined the impact of tactile play on the oral acceptance of wet food items in two children both diagnosed with autism spectrum disorder (ASD). The research study posed the question: Does teletherapy intervention using the SOS hierarchy lead to an increase in oral acceptance of non-preferred, wet food items in children with feeding difficulties? The subjects completed a six-week intervention using a modified (23 step) Sequential Oral Sensory (SOS) approach developed by Dr. Kay Toomey. Research related to pediatric teletherapy is very limited, thus, conducting research studies using the SOS approach during teletherapy with the pediatric population will allow for a greater understanding of this approach. Because feeding and eating are classified as occupations listed in the OTPF-4, this topic is timely for occupational therapists (OTs) and the children and families that are challenged by these difficulties during their daily routines.

DESIGN: This study is a mixed-methods research design. The qualitative aspect is phenomenological, as remarks from the children and caregivers were recorded and individual results were compared throughout the study. The quantitative aspect of the study is repeated measures as well as quasi-experimental as there was no random assignment of participants into groups. The inclusion criteria for this study included children and adolescents with feeding difficulties such as sensory aversion, tactile defensiveness, and food neophobia. The exclusion criteria included children and adolescents with a past medical history of aspiration and/or penetration of food, as well as food allergies to fruits, vegetables, and/or dairy.

METHOD: The primary caregiver was present during the study. Sessions included three fifteen-minute segments of intervention which included tactile play in the child's non-preferred wet food (a mixed fruit cup), then the use of the SOS approach to trial the mixed fruit cup, and lastly, a play-based reward portion. As the child interacted with the food, co-investigators recorded the child's progression on the SOS hierarchy. Caregiver education at the end of each teletherapy session included carryover of tracking food acceptance using the SOS hierarchy one time a day. The quantitative data, or SOS hierarchy progress level and mealtime questionnaire, were analyzed through descriptive statistics. To analyze the qualitative data, themes were created from the data obtained quotes and behaviors recorded from the children and caregiver during the study.

RESULTS: The caregiver rated each subject at a level 7 out of 23 steps on the SOS hierarchy at the start of the study. Throughout the six-week intervention, both subjects increased their oral acceptance of the mixed fruit cup by reaching steps 14 and 21. Both subjects had consistently greater success during daily tracking conducted by the caregiver at a mealtime of their choice when compared to direct teletherapy sessions. These findings support the initial research question that asked if teletherapy intervention using the SOS hierarchy would lead to an increase in oral acceptance of non-preferred, wet food items in children with feeding difficulties.

CONCLUSION: Results of this study provide preliminary evidence that by using caregiver education and teletherapy, children's acceptance of non-preferred wet food may increase through tactile play and tracking of progress using the SOS hierarchy.

IMPACT STATEMENT: These findings encourage the use of teletherapy in pediatric OT practice as the subjects showed progress within this context using the SOS approach. Results also support the use of caregiver education to support feeding skills in children as this occupation is important to support health and well-being.

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