Title: Preliminary Effectiveness of a Remote Parent-Training Intervention Program for Preschoolers with PWS

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Introduction: Research has shown that children with Prader-Willi Syndrome (PWS) have deficits in social cognitive abilities that present early in development and are similar to children with autism spectrum disorder (ASD) (Dimitropoulos, Ho, & Feldman, 2013). Young children with PWS also present with difficulty in engaging in pretend play behaviors, such as a decreased ability to think flexibly and transform objects in play (Zyga et al., 2015). The use of parent training in other developmental disorders, such as ASD, has become an accepted and effective option for behavior change in preschool age children (Scahill et al., 2012). Developing a training program for parents of children with PWS could produce similar positive results and improve play ability early in development. Research in ASD has shown that parent training for problem behaviors in young children is feasible via telehealth methodology (Vismara et al., 2013), however no study has yet to investigate the use of this modality in PWS.

Method: The current study aimed to deliver a 6-week parent-training intervention to primary caregivers of children with PWS, ages 3-6 years, twice a week, for 20-30 minute sessions. Thus far, 28 children with PWS (mean age = 4.56 years; intervention = 15, waitlist control = 13) and their primary caregiver have participated in the current study. Participants completed in-person baseline and post-intervention visits. During the intervention period, the primary caregiver worked directly with the interventionist via videoconferencing software to complete the Parent-focused Remote Education To ENhance Development (PRETEND) program, which centers on providing parents techniques to improve the quality of interactions and symbolic play behaviors in children and their parents. It was hypothesized time spent in symbolic play and imaginative ability, as measured by the Affect in Play Scale – Preschool Version (APS-P) and the quality of parent-child engagement and overall enjoyment in parent-child play, as measured by the parent-child interaction task, would increase in the intervention group as compared to the waitlist control group.

Results: Overall, 13 of the 15 families have completed the PRETEND intervention program suggesting that the intervention format fit into participants’ schedules and lifestyles. Preliminary results suggest that pre to post assessment gains were made in parent-child interaction for PRETEND program participants. Repeated measures analyses indicated that children and parents in the intervention made significant gains in their overall ability to engage in a positive and cooperative manner during the parent-child play task from pre to post intervention (p = 0.02). Waitlist control parent-child dyads scores on this domain decreased from pre to post intervention (p < 0.05). Further, overall enjoyment during the parent-child interaction task, which measures a parent’s ability to engage in the play and a child’s ability to respond positively to their parent, increased from pre to post intervention in the intervention group only (p < 0.05).

Discussion: These preliminary findings are the first to provide evidence suggesting that parent training in young children with PWS may be a feasible intervention option for targeting both behavioral and socioemotional domains of functioning. Results further suggest that telehealth as a method of intervention delivery is feasible and potentially effective in this population, which would then allow many families to access services that were previously difficult to engage in given barriers such as distance and consistency of in-person visits needed to see significant change.

References/Citations: