Title: Out of the Ivory Tower: Generalizing Caregiver-Delivered Interventions for Children with ASD

Authors: Maria Pizzano; Stephanie Shire, PhD; Connie Kasari, PhD

Introduction: Joint engagement refers to period of time when the child coordinates their social partner and an object or event (Adamson, Bakeman, Deckner, & Nelson, 2012). Time jointly engaged in children with ASD is a predictor of verbal language (Adamson, Bakeman, Deckner, & Romski, 2009). Social communication interventions have been taught to caregivers of children with ASD, with gains in caregivers’ strategy implementation and children’s time spent jointly engaged (Kasari, et al., 2010; Kasari et al., 2014). These gains have not yet been specifically examined in the context of generalization to less structured settings. Generalization of learned skills is a neglected aspect of existing evidence-based interventions for ASD (Smith & Iadarola, 2015). Interventions for ASD are frequently developed with homogenous samples of well-resourced participants (Kasari & Smith, 2016). This study examines the impact of a parent-mediated, community-based intervention targeting core challenges of ASD across daily activities and in a natural context with a sample of low-resourced families, approximately 66% of whom identify as a racial/ethnic minority.

Methods: Twenty-eight families were randomized to receive either parent-mediated JASPER (Joint Attention, Symbolic Play Engagement, Regulation), a targeted social communication intervention, or small group parent education for 2 hours per week for 12 weeks. JASPER involved active coaching with the child present, while the group sessions focused on improving communication and behavior without the child present. Each group had fourteen dyads, with an average child age of 41.89 months, average ADOS severity score of 6.03, and an average Mullen mental age of 24.46 months.

This secondary analysis examines 30-minute videos of home-based activities with the caregiver and their child. The caregiver was asked to interact with the child as they typically would, with any activity or routine of their choice- i.e. play, reading, mealtime, caregiving, or reading books. Videos were coded for parents’ strategy use and children’s engagement. 30-second intervals were examined for the majority of time spent in one of 4 mutually exclusive states as described in Adamson, et al. (2012). Child-initiated joint engagement refers to the parent following the child’s lead to support the child’s social coordination. Parent strategy use was rated on a Likert scale based on Adamson, et al. (2012) in the categories of support, following the child’s focus, affect, routine building, directiveness, pacing, environmental strategies, and communication. Repeated measures ANOVAs were used to compare total JE/total number of 30-second intervals, JE in play/ play intervals, and JE in other activities/other activity intervals.

Results: Repeated Measures ANOVAs were used to examine group differences in engagement and in parent strategy use across time at entry, 3 month exit, and 3 month follow-up. There was a significant effect of group and time for improved parent strategy use, where parents in the JASPER group showed greater gains (F (2, 26)= 11.063, p<.01). Joint engagement was examined as child-initiated, either supported or coordinated joint engagement. Since the observation was unstructured, activity type- play or other- was noted. There was a significant time x group effect for overall JE across the entire interaction (F (2.26)=4.899, p=0.01) and for JE in play (F (2,21)=3.165, p=0.05), with greater gains in the JASPER group. While there was no significant treatment effect for JE in other activities, both groups demonstrated significant gains over time (F (2,19)=4.518, p=0.02).

Discussion: Parents in the JASPER active coaching group showed greater use of communication and behavioral strategies and were able to improve their child’s joint engagement in the natural, unstructured home context. Findings suggest that targeted coaching is required to support change in the development of developmentally appropriate play activities but lesser so in everyday home activities. One limitation is that at exit and follow-up, fewer families who were actively coached participated in activities other than play.
References/Citations:


