Title: Parent Mediated Intervention with ASD Toddlers: Pre-Study Parent Strategies Predict Maintenance of Intervention

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Introduction: While research on parent-mediated interventions for children with autism spectrum disorder (ASD) has increased significantly over the past decade, results have been mixed (Rogers, et al., 2010; Green et al., 2010; Kasari et al., 2010). Some studies find significant differences in child and parent outcomes but others find limited to no effects on parent or child. The differences in outcomes have been attributed to child factors reflecting heterogeneity in ASD. Parent factors have been less often examined. One factor affecting intervention outcomes is that parents may already be demonstrating many of the intervention strategies of the experimental intervention. High levels of fidelity may yield little difference between treatment and control conditions. These parents, however, may buy into the intervention more and therefore, more likely to maintain the intervention post study active treatment phase.

In this study we examine the effect of parent fidelity to intervention strategies prior to starting intervention, and the effect on parent maintenance of strategies at follow up with toddlers with ASD.

Methods: 86 parent-toddler dyads were randomized to one of two treatment conditions – JASPER or a control parent education condition (CEI) with similar information but no parent-child coaching (Kasari, et al., 2015). Each condition was carried out one hour per week for ten weeks. Average child age was 31.5 months. Randomization and analyses were conducted by an independent data-coordinating center. Treatment group differences were evaluated using pairwise parametric/non-parametric tests and moderating effect of treatment on parent strategies were determined using linear models.

Parent Strategies: Parent strategy use were rated in 2-min intervals across the 10-min interaction. The rating was developed to reflect the parents’ fidelity to strategies taught in the JASPER training protocols. Four composite codes were included in the analyses: environmental arrangement, mirrored pacing, prompting, and communication. Each composite represented the average of the scores for several behaviors related to each interaction theme and an overall parent strategy composite was defined as the average of the 4 composite scores. High or low parent strategy use was defined by using a median split from the overall parents’ strategy composite at entry.

Results: At follow up, parents in the JASPER condition had significantly higher usage of overall parent strategies compared to parents in the CEI group (p=0.0087). However, the extent to which parents were already using strategies prior to intervention and their treatment group assignment influenced maintenance of strategies at follow up. Among parents with high parent strategy use at entry, the JASPER parents had significantly higher usage of parent strategies at follow up compared to CEI parents (p=0.0071). However, among parents with low parent strategies use at entry, parents in both treatment groups were similar at follow up.

Discussion: Parent use of specific intervention strategies are important to assess prior to beginning intervention as parents who already use many of the strategies are more likely to maintain those strategies at follow up. Future studies need to consider additional methods for helping parents low in strategy use at the beginning of an intervention to obtain greater fidelity in using and maintaining effective strategies.

References/Citations: