**Title**: *An exploration of intervention strategy effectiveness among responders and nonresponders of a play-based intervention for children with PWS*

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**Introduction**: Children with Prader-Willi Syndrome (PWS) often demonstrate challenges with social cognition, emotional expression, and pretend play abilities, which thus may be possible intervention targets. Understanding the components of intervention that work well and for whom is essential to improving treatment selection and related outcomes. As such, the present study sought to evaluate differences in child characteristics and specific intervention strategy effectiveness among responders and non-responders to a play-based telehealth intervention for school-age children with PWS.

**Methods**: Participants included 24 children (54.2% female; 83.3% white; *M* age = 8.29 years; SD = 1.84) who completed a virtual pretend play-based program. Intervention strategy effectiveness was determined by the percent of time targeted behaviors occurred within three domains (pretend, imagination, and affect) immediately following a particular strategy via dyadic behavioral coding system (Gordon et al., 2023). Repeated measures ANOVA were conducted to examine intervention strategy effectiveness within the responder (N = 17) and nonresponder groups (N = 7), controlling for baseline pretend play abilities. Independent samples t-tests were then conducted to evaluate differences between groups among intervention strategies effectiveness as well as baseline child characteristics (i.e., parent reported social skills, observed pretend play abilities).

**Results**: No significant main effect was observed for the pretend and imagination domains within both the responder and nonresponder groups. Interestingly, baseline affect expression in play emerged as a significant covariate (ηp2 = .264; p = .042) in the responder group for the pretend domain. Within the affect domain, a significant main effect emerged for the responder group only (ηp2 = .308; p = .002). Pairwise comparisons revealed differences between specific strategy effectiveness within the responder (all domains) and nonresponder groups (affect only), with prompting and modeling appearing consistently as more effective than other strategies. However, there were no significant differences in intervention strategy effectiveness for the pretend, imagination, or affect domains between groups. Among child characteristics, only baseline pretend play abilities in imagination, organization, affect frequency, and affect variety significantly differed, with the responder group demonstrating better baseline pretend play abilities.

**Discussion:** These results indicate that some intervention strategies may be more effective (i.e., prompting and modeling) than others (i.e., questioning and praise) and may be most important for eliciting emotional expression in play. Further, and possibly most importantly, the only significant difference between responders and nonresponders was among baseline play abilities, suggesting that play-based intervention may be more appropriate for children who meet a particular pretend play threshold. This project emphasizes the clinical utility of examining what works for whom in a particular intervention.

**References:**

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