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## Exploring Language Use Within a Parent-Mediated Intervention for Children Exhibiting Social Communication Difficulties

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Green, J., Pickles, A., Pasco, G., Bedford, R., Wan, M. W., Elsabbagh, M., ... Johnson, M. H. (2017). Randomised trial of a parent-mediated intervention for infants at high risk for autism: Longitudinal outcomes to age 3 years. *Journal of Child Psychology and Psychiatry*, 58, 1330- 1340. doi:10.1111/jcpp.12728 Kasari, C., Siller, M., Huynh, L. N., Shih, W., Swanson, M., Hellemann, G. S., & Sugar, C. A. (2014). Randomized controlled trial of parental responsiveness intervention for toddlers at high risk for autism. *Infant Behavior and Development*, 37, 711–721. doi:10.1016/j.infbeh.2014.08.007 Schwichtenberg, A.J., Kellerman, A.M., Young, G.S., Miller, M., Ozonoff, S. (2019). Mothers of children with autism spectrum disorders: Play behaviors with infant siblings and social responsiveness. *Autism*, 23, 821-833. doi:10.1177/1362361318782220 Woods, J. J., & Wetherby, A. M. (2003). Early identification of and intervention for infants and toddlers who are at risk for autism spectrum disorder. *Language, Speech, and Hearing Services in Schools*. doi: 10.1044/0161-1461%282003/015%29

## Exploring language use within a parent-mediated intervention for children exhibiting social communication difficulties

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For infants/toddlers experiencing social communication difficulties, parent-mediated interventions (PMI) are the current field standard to promote development within a natural context. Previous research highlights the importance for parents to scaffold language learning opportunities beyond clinical settings to maximize children's potential. However, for infants/toddlers exhibiting social communication-based difficulties currently enrolled in a family routines-based PMI, less is known about the individual contributions of communication between child and parent in order to promote optimal language development.

The present study expands our understanding of children's communication by examining whether (1) children exhibit language impairments at enrollment; (2) whether observed mother-child communication during play increases following an eight-session intervention; and (3) associations between children's language impairments and observed communication. As part of an ongoing PMI, 16 children were assessed with the Mullen Scales of Early Learning (MSEL) at enrollment to index their receptive (RL) and expressive language (EL) skills. Home visit recordings of play-based interactions were rated for child EL use (e.g., single words; two-word phrases) and mothers' language-learning opportunities (i.e., symbol highlighting). Overall, children on average received MSEL-RL and MSEL-EL scores within the concerns range for their age. A series of repeated measures ANCOVAs to assess communication during play were conducted and revealed a significant increase in child EL use,  $F(1,15)=5.87, p=.03$ . To examine associations between children's MSEL scores and play-based observations, a series of partial correlations were conducted. No significant associations were observed. In sum, these findings highlight the importance of monitoring language development and the modest impact of an 8-week PMI on children's language use.

**Keywords:** at-risk infants; communication skills; family routines; parent-mediated interventions

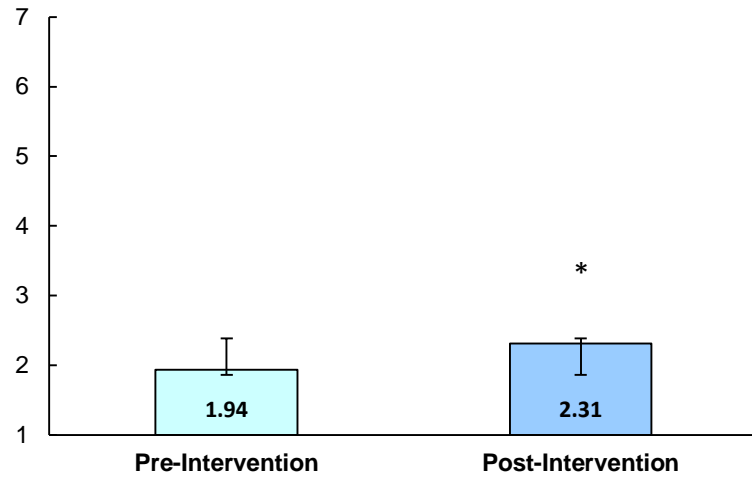
**Table 1.**

Select participant demographics

<i>N</i>	16
<i>Infant Characteristics</i>	
Infant sex, male, <i>n</i> (%)	12(75%)
Infant ethnicity, Hispanic or Latino, <i>n</i> (%)	2(13%)
Enrollment age in months, <i>M</i> ( <i>SD</i> )	27.50(11.8)
<i>MSEL at enrollment</i>	
Receptive Language, <i>M</i> ( <i>SD</i> )	36.63(14.4)
Expressive Language, <i>M</i> ( <i>SD</i> )	31.19(9.93)
<i>Family Characteristics</i>	
Household income, <i>n</i> (%)	
\$20,000 – or less	1(6%)
\$20,001 - \$40,000	3(19%)
\$40,001 - \$60,000	1(6%)
\$60,001 - \$80,000	2(13%)
\$80,001 - \$100,000	-
\$100,001 or greater	3(19%)
Preferred not to answer	3(19%)
<i>Maternal Characteristics</i>	
Maternal age at birth in years <sup>1</sup> , <i>M</i> ( <i>SD</i> )	32.12(3.91)

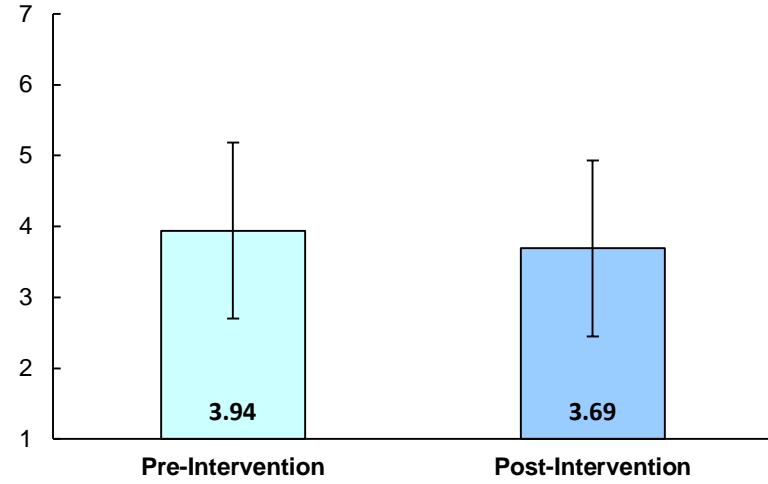
Notes. <sup>1</sup>Only includes biological mothers of enrolled infants. MSEL = Mullen Scales of Early Learning.

**a) Child Language Use**



\* $p < .05$

**b) Mother Symbol Highlighting**



**Figure 1.** Mother-child language use during play pre- to post-intervention

**Table 2**

Associations between MSEL language scores and play-based language observations

	<b>Child Language Use</b>		<b>Mother Symbol Highlighting</b>	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
Pre-intervention <sup>1</sup>				
RL T-Score	-.23	.41	.367	.18
EL T-Score	.31	.27	-.289	.30
Post-intervention <sup>1</sup>				
RL T-Score	-.08	.77	.358	.19
EL T-Score	.19	.49	.332	.23

<sup>1</sup>Infant sex was included as a covariate in the models. No significant sex differences were observed.

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