Sally J. Rogers, PhD, Paul Yoder, PhD, Annette Estes, PhD, Zachary Warren, PhD, John McEachin, PhD, Jeff Munson, PhD, Marie Rocha, PhD, Jessica Greenson, PhD, Lisa Wallace, MS, Elizabeth Gardner, PhD, Geraldine Dawson, PhD, Catherine A. Sugar, PhD, Gerhard Hellemann, PhD, Fiona Whelan, MS

A Multisite Randomized Controlled Trial Comparing the Effects of Intervention Intensity and Intervention Style on Outcomes for Young Children With Autism

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Objective: This randomized, multisite, intent-to-treat study tested the effects of 2 levels of treatment intensity (number of hours) and 2 treatment styles on the progress of young children with autism spectrum disorder (ASD). We predicted that initial severity of developmental delay or autism symptoms would moderate the effects of intensity and style on progress in 4 domains: autism symptom severity, expressive communication, receptive language, and nonverbal ability.

Method: A total of 87 children with ASD, mean age 23.4 months, were assigned to 1 of 2 intervention styles (naturalistic developmental/behavioral or discrete trial teaching), each delivered for either 15 or 25 hours per week of 1:1 intervention for 12 months by trained research staff. All caregivers received coaching twice monthly. Children were assessed at 4 timepoints. Examiners and coders were naive to treatment assignment.

Results: Neither style nor intensity had main effects on the 4 outcome variables. In terms of moderating the effects of initial severity of developmental delay and of autism symptom severity, neither moderated the effects of treatment style on progress in any of the 4 domains. In terms of treatment intensity, initial severity moderated effect of treatment intensity on only 1 domain, namely, change in autism symptom severity; in a secondary analysis, this effect was found in only 1 site.

Conclusion: Neither treatment style nor intensity had overall effects on child outcomes in the 4 domains examined. Initial severity did not predict better response to 1 intervention style than to another. We found very limited evidence that initial severity predicted better response to 25 vs 15 hours per week of intervention in the domains studied.

Clinical trial registration information: Intervention Effects of Intensity and Delivery Style for Toddlers With Autism: https://clinicaltrials.gov/; NCT02272192

Key Words: autism spectrum disorder, early intervention, Early Start Denver Model, early intensive behavioral intervention, treatment intensity J Am Acad Child Adolesc Psychiatry 2021;-(-):—-.