

Paul Yoder , Sally Rogers, Annette Estes, Zachary Warren, Jeff Munson, Gerhard Hellemann, and John McEachin

Interaction of Treatment Intensity and Autism Severity on Frequency and Maturity of Spontaneous Communication in Toddlers with Autism Spectrum Disorder

This study tested whether the effect of treatment intensity or treatment style on children's frequency and maturity of spontaneous communication varied by initial severity of disability. Eighty-seven toddlers with autism spectrum disorders were randomly assigned to either (a) 15 hrs per week of discrete trial teaching (DTT), (b) 25 hrs per week of DTT, (c) 15 hrs per week of a naturalistic developmental behavioral intervention (NDBI), or (d) 25 hrs per week of NDBI. Trained research staff implemented the 1:1 treatments in homes or educational centers over 12 months. We quantified the frequency and maturity of spontaneous communication during monthly 6-min communication samples. We quantified disability severity at Time 1 using the developmental quotient from the Mullen Scales of Early Learning and the total calibrated severity score from the Autism Diagnostic Observation Schedule-second edition. Higher levels of treatment intensity (i.e., more hours per week) benefited frequency and maturity of spontaneous communication growth rate only in children with relatively mild autism symptoms. Other results were nonsignificant. *Autism Res* 2020, 00: 1–11. © 2020 International Society for Autism Research and Wiley Periodicals LLC

Lay Summary: Eighty-seven toddlers with autism spectrum disorders were randomly assigned to 15 hrs per week of discrete trial teaching (DTT), 25 hrs per week of DTT, 15 hrs per week of a naturalistic developmental behavioral intervention (NDBI), or 25 hrs per week of NDBI. Trained research staff implemented the treatments in homes or educational centers over 12 months. More hours of treatment per week benefited frequency and maturity of spontaneous communication growth rate only in children with relatively mild autism symptoms. Other results were nonsignificant.