A Longitudinal Study of Children with Early Autism Spectrum Disorder Diagnosis
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Background
Longitudinal studies of Autism Spectrum Disorder (ASD) are important for understanding the outcomes of children diagnosed early. Few studies have followed children from as early as the age of two to school age. In addition, longitudinal studies tend to focus exclusively on diagnostic stability. This study focuses on prediction of autism and disability severity at school age from early childhood characteristics as well as examines the types of early intervention services received.

Methods
Participants: Through a chart abstraction coding system, 70 children who received early intervention evaluations and/or service coordination at WIHD were diagnosed with ASD before the age of 3 (Time 1). 60 were males (85.7%) and 10 were females (14.3%). About half of the children were under the age of 2 at Time 1. They were re-evaluated at age 7-18 (Time 2). 20 children were evaluated in person.

Procedure: Parents were contacted about participation in the study. Packets including consent form and questionnaires were mailed out. Vineland assessments were conducted via phone interviews with parents at Time 2. Each child's early intervention hours were abstracted from the Department of Health early intervention charts. All instruments were scored and entered into the database using SPSS to conduct planned analysis.

Results

Goal 1: Diagnostic Stability
Three diagnostic severity categories at Time 2 were developed based on: (1) Parent report of current functioning (i.e. social skills, school placement), (2) GARS scores, and (3) Learning difficulties and special education services.

Goal 2: Prediction from Time 1 to Time 2
Early (T1) versus Late (T2) Autism Scores
Several CARS subscale scores at T1 predict later autism symptom severity at T2. Total scores and subscales that represent core ASD symptoms correlate with symptom severity several years later.

Goal 3: Early Intervention Therapies
The most common therapies were Speech, OT, Special Education, and ABA.

Discussion
Diagnostic stability was found to be comparable to outcomes of other studies for this population. Several variables predict later functioning in children with early ASD diagnosis. Early child autism scores (CARS) and Vineland Socialization scores were predictive of later autism severity. This suggests continuity between ASD severity measured before age 3 and when reported by parents at school age. CARS RRB subscale had the strongest predictive power of later scores. Speech, ABA, Special Education, and OT were the most common therapies received. Future studies should further examine predictive variables and early intervention services.

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