

A Longitudinal Study of Children with Early Autism Spectrum Disorder Diagnosis

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Team Project Abstract 2016-2017

Background: Even though children with autism spectrum disorder (ASD) are diagnosed at increasingly early ages (prior to age 3), outcomes later in life vary widely. The symptoms most predictive of the future presence and severity of the disorder in later childhood are not well known.

Objectives:

Present study goals are to determine:

- 1) Diagnostic stability of an early ASD diagnosis over time
- 2) Functional outcomes of adaptive behavior and level of autism severity
- 3) If early variables of autism severity and adaptive behavior predict similar variables at school age
- 4) The number and hours of Early Intervention therapies received for different levels of autism severity at school age

Methods:

Participants were 70 children who were diagnosed with ASD prior to age 3 (Time 1), identified from review of early intervention charts at WIHD, and were presently 7 years or older (Time 2). Time 1 data, extracted from the charts, were: Vineland Adaptive Behavior Scales (VABS I & II) and Childhood Autism Rating Scale (CARS) scores. Parents who agreed to participate were mailed a packet containing a consent form and questionnaires containing the Gilliam Autism Rating Scale (GARS), and the VABS was also administered. Based on parental responses and scores on the VABS at Time 2, participants were assigned one of the three diagnostic/disability categories: ASD with

moderate to severe disability, ASD with mild disability, and no ASD diagnosis. Those with no ASD diagnosis also may have had other diagnoses (e.g. learning disabilities, intellectual disability).

Community Partner:

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Results:

51.4% retained a diagnosis of moderate to severe ASD, 31.4% continued to exhibit a milder form of ASD, and 17.1% no longer met diagnostic criteria for ASD. As expected, school-age GARS scores were highest for children who were determined to be in the moderate-severe disability group, lower for children in the mild disability group, and lowest for children in the No ASD diagnosis group. Also as expected, Vineland scores were lowest for children who were determined to be in the moderate-severe disability group, higher for children in the mild disability group and highest for children in the No ASD diagnosis group. The Social Communication, Repetitive/Restricted Behaviors (RRB), General Impressions, and Total subscales on the CARS at T1 predict later functioning as measured by the GARS Total score at T2. CARS RRB subscale has the most predictive power in that it predicts T2 GARS Total, Social, and RRB subscales. Early socialization scores (Vineland) predicted later autism severity scores (GARS) at Time 2, suggesting that they function as measures of early autism severity.

Conclusions

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. The types of therapies and total hours received were higher for children who were more severe at outcome. Future studies should further examine predictive variables and early intervention services.