



Children with Early Autism Spectrum Disorder Diagnoses: Outcomes and Early Intervention Experiences

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Background

Longitudinal studies of Autism Spectrum Disorder (ASD) are important to understand 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, that is, if children retain the diagnosis from earlier to later. This study focuses on diagnostic stability, functional outcomes, and early intervention (EI) experiences.

Objectives

1. Determine the diagnostic stability of an early ASD diagnosis over time.
2. Examine functional outcomes of adaptive behavior and level of autism severity.
3. Examine the types of early intervention therapies and hours the participants received.

Method

Participants: 70 children who received early intervention evaluations and/or service coordination at WIHD and through a chart abstraction coding system were diagnosed with ASD before 3 years (Time 1). The same children were re-evaluated at 7-18 years (Time 2).



	Mean	Range	SD
Age at Time 1	25 months	13-36 months	5.5 months
Age at Time 2	10.7 years	7.3-18.4 years	2.3 years

Instruments

Time 1: Demographics, Vineland Adaptive Behavior Scales (VABS), and Childhood Autism Rating Scale (CARS). Early intervention services child received.

Time 2: Parent Questionnaire, Vineland Adaptive Behavior Scales (VABS), and Gilliam Autism Rating Scale (GARS).

Procedure: Parents were contacted about participation in the study. Packets including consent form and questionnaires were mailed out. Each child's EI hours were recorded from the Department of Health early intervention charts. All instruments were scored and entered into the database using SPSS to conduct planned analyses.

Results

Three diagnostic severity categories at Time 2 were developed based on the following: 1) parent report of current functioning (i.e., social skills, school placement) 2) GARS scores 3) learning difficulties and special education services

Results: Goals 1 & 2

Time 2 Scores		ASD with Mod-Severe Disability		ASD with Mild Disability		No ASD Dx (Can incl. LD)	
		N	%	N	%	N	%
		31	44.3	27	38.6	12	17.1
VABS ABC	M	56.6		78.8		104.6	
	N	19		20		10	
GARS	M	97.1		74.0		54.6	
	N	31		26		10	

Close to half the children were in the most severe category, ~40% was milder, and 17% did not retain an ASD diagnosis. Adaptive behavior (VABS) and Autism severity scores (GARS) supported the categories.

Results: Goal 3

	Moderate-Severe ASD		Mild ASD		No ASD	
	N	%	N	%	N	%
Speech Therapy	29	93%	22	91%	10	100%
Occupational Therapy (OT)	28	90%	21	88%	9	90%
Special-Instruction (SI)	23	74%	21	88%	6	60%
Applied Behavioral Analysis (ABA)	21	67%	15	62%	4	40%
Family Training	14	45%	12	50%	4	40%
Behavioral Consult	2	6%	0	0	0	0
Social Skills	0	0	4	17%	0	0
Physical Therapy	12	39%	7	29%	3	30%
Feeding	13	42%	5	21%	1	10%

The most common therapies were Speech, OT, ABA, and Special Instruction. The Moderate-Severe group tended to receive more ABA while Mild group were more likely to receive SI. The more Severe group received more feeding therapy early on.

Results

	ASD with Moderate-Severe Disability	ASD with Mild Disability	No ASD	
	Total Hours (N)	Total Hours (N)	Total Hours (N)	p
ABA	674 (17)	415 (13)	384 (5)	.43
SI	200 (20)	199 (17)	275 (6)	.61
Speech	129 (24)	87 (19)	101 (10)	.07 (T)
OT	82 (24)	49 (17)	72 (9)	.07 (T)

Children in the Moderate/Severe category tended to have the greatest total number of hours across the core interventions except for Special Instruction, but this only approached significance (T= trend) for Speech and OT. No ASD group had greater total hours than mild group except for ABA.

Discussion

- Diagnostic stability was found to be comparable to outcomes of other studies for this population.
- Functional skill levels showed differences across three levels of disability. E.g. Vineland scores reflected capability levels in activities of daily living skills. This is important for planning educational and vocational supports.
- EI therapies the children received during EI suggested some differences across the three disability groups, perhaps reflecting severity differences that were likely present at Time 1. Although there are emerging trends in total hours received of the core therapies, no statistical significance was found. This could potentially be due to our sample size and in the future more participants will be included.
- Future studies should continue to examine early intervention hours received and the relationship to outcome level of functioning.

Community Partners

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