

Review of Screening Studies

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Early Screening of Autism Spectrum Disorder: Recommendations for Practice and Research

Lonnie Zwaigenbaum, Margaret L. Bauman, Deborah Fein, Karen Pierce, Timothy Buie, Patricia A. Davis, Craig Newschaffer, Diana L. Robins, Amy Wetherby, Roula Choueiri, Connie Kasari, Wendy L. Stone, Nurit Yirmiya, Annette Estes, Robin L. Hansen, James C. McPartland, Marvin R. Natowicz, Alice Carter, Doreen Granpeesheh, Zoe Mailloux, Susanne Smith Roley and Sheldon Wagner

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Summary of Screening Literature

Measure	# Papers*
FYI - First Year Inventory	3
ITC - CSBS Infant Toddler Checklist	4
CHAT - Checklist for Autism in Toddlers	3
M-CHAT - Modified Checklist for Autism in Toddlers	11
M-CHAT-R/F - Modified Checklist for Autism in Toddlers, Revised, with Follow-Up	1
Q-CHAT - Quantitative Checklist for Autism in Toddlers	1
ESAT - Early Screening of Autistic Traits - Netherlands	3
YACHT - Young Autism and other Developmental Disorders Checkup Tool - Japan	1

*Low risk (Level 1) samples, including children younger than 2 years old

Sources: USPSTF Evidence Report, Zwaigenbaum et al., 2015

A Closer Look at 4 Studies Rated as **Good Quality** - USPSTF Evidence Report

Tool	n	Age (mos)	Sens	Spec	PPV- ASD	PPV- any*	LR+
1. ITC	10,479	10-15.9			.174	.723	
2. ITC	5,385	6-24					
3. M-CHAT/F	18,989	16-30.9	.91		.54	.975	
4. M-CHAT-R/F	16,115	16-30.9	.854	.993	.48	.95	114.05

1. Pierce et al., 2011
2. Wetherby et al., 2008
3. Chlebowski et al., 2013; Kleinman et al., 2008
4. Robins et al., 2014

*PPV any developmental disorders or concerns

Universal Screening Reduces Disparity

Journal of
& **Developmental
Behavioral Pediatrics**

Official Journal of the Society for Developmental and Behavioral Pediatrics

Original Article

Standardized Screening Facilitates Timely Diagnosis of Autism Spectrum Disorders in a Diverse Sample of Low-Risk Toddlers

Lauren E. Herlihy, MA,* Bianca Brooks, BA,† Thyde Dumont-Mathieu, MD,*
Marianne L. Barton, PhD,* Deborah Fein, PhD,* Chi-Ming Chen, PhD,* Diana L. Robins, PhD†

2014; 35: 85-92

Age at Diagnosis		
Minority	Non-Minority	
26.28 (4.42)	25.20 (4.48)	$t(341)=-2.26, p<.05$

Summary of Findings from Screening Literature

- Evidence supports the usefulness of ASD-specific screening at 18 and 24 months (Zwaigenbaum et al., 2015)
- Adequate evidence demonstrates that currently available screening tools detect ASD in toddlers (USPSTF, 2015)
- Many children identified by screening **BEFORE** parents or physicians express concern (USPSTF Evidence Report, 2015, p. 47)