

Autism Spectrum Disorders: Infancy and Early Childhood

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Autism Spectrum Disorders

- ▶ **What we know**
- ▶ **What we don't know**

Autism Spectrum Disorders

▶ What we know

- ▶ Autism spectrum disorder (ASD) is a complex developmental disorder that can cause problems with thinking, feeling, language and the ability to relate to others. It is a neurological disorder, which means it affects the functioning of the brain. The effects of autism and the severity of symptoms are different in each person.
- ▶ Autism is usually first diagnosed in childhood. About 1 in 68 children is diagnosed with autism according to the Centers for Disease Control and Prevention. Autism spectrum disorder is three to four times more common in boys than in girls.
- ▶ Autism is most often a lifelong disorder, though there are more and more cases of children with ASD who eventually function independently, leading full lives. The information here focuses primarily on children and adolescents.

• CDC

Characteristics of ASD

- ▶ **Communication problems:** including difficulty using or understanding language. Some children with autism focus their attention and conversation on a few topic areas, some frequently repeat phrases and some have very limited speech.
- ▶ **Difficulty relating to people, things and events:** including trouble making friends and interacting with people, difficulty reading facial expressions and not making eye contact.
- ▶ **Repetitive body movements or behaviors:** such as hand flapping or repeating sounds or phrases.

Autism Spectrum Disorders

- ▶ **What we don't know**
- ▶ **What causes ASD**

Autism Spectrum Disorders

▶ **What we know**

- ▶ The Centers for Disease Control and Prevention (CDC) estimates autism's prevalence as 1 in 68 children in the United States. This includes 1 in 42 boys and 1 in 189 girls.
- ▶ An estimated 50,000 teens with autism become adults – and lose school-based autism services – each year.
- ▶ Around one third of people with autism remain nonverbal.
- ▶ Around one third of people with autism have an intellectual disability.
- ▶ Certain medical and mental health issues frequently accompany autism. They include gastrointestinal (GI) disorders, seizures, sleep disturbances, attention deficit and hyperactivity disorder (ADHD), anxiety and phobias.
 - Autism Speaks

Early Signs – Possible Red Flags

- ▶ Does not respond to their name by 12 months of age
- ▶ Not pointing at objects to show interest (point at an airplane flying over) by 14 months
- ▶ Not playing "pretend" games (pretend to "feed" a doll) by 18 months
- ▶ Avoid eye contact and wants to be alone
- ▶ Have trouble understanding other people's feelings or talking about their own feelings
- ▶ Have delayed speech and language skills
- ▶ Repeat words or phrases over and over (echolalia)
- ▶ Give unrelated answers to questions
- ▶ Get upset by minor changes
- ▶ Have obsessive interests
- ▶ Flap their hands, rock their body, or spin in circles
- ▶ Have unusual reactions to the way things sound, smell, taste, look, or feel

Social Skills

- ▶ Does not respond to name by 12 months of age
- ▶ Avoids eye-contact
- ▶ Prefers to play alone
- ▶ Does not share interests with others
- ▶ Only interacts to achieve a desired goal
- ▶ Has flat or inappropriate facial expressions
- ▶ Does not understand personal space boundaries
- ▶ Avoids or resists physical contact
- ▶ Is not comforted by others during distress
- ▶ Has trouble understanding other people's feelings or talking about own feelings

Communication

- ▶ Delayed speech and language skills
- ▶ Repeats words or phrases over and over (echolalia)
- ▶ Reverses pronouns (e.g., says "you" instead of "I")
- ▶ Gives unrelated answers to questions
- ▶ Does not point or respond to pointing
- ▶ Uses few or no gestures (e.g., does not wave goodbye)
- ▶ Talks in a flat, robot-like, or sing-song voice
- ▶ Does not pretend in play (e.g., does not pretend to "feed" a doll)
- ▶ Does not understand jokes, sarcasm, or teasing

Unusual Interests and Behaviors

- ▶ Lines up toys or other objects
- ▶ Plays with toys the same way every time
- ▶ Likes parts of objects (e.g., wheels)
- ▶ Is very organized
- ▶ Gets upset by minor changes
- ▶ Has obsessive interests
- ▶ Has to follow certain routines
- ▶ Flaps hands, rocks body, or spins self in circles

Other Symptoms

- ▶ Hyperactivity (very active)
- ▶ Impulsivity (acting without thinking)
- ▶ Short attention span
- ▶ Aggression
- ▶ Causing self injury
- ▶ Temper tantrums
- ▶ Unusual eating and sleeping habits
- ▶ Unusual mood or emotional reactions
- ▶ Lack of fear or more fear than expected
- ▶ Unusual reactions to the way things sound, smell, taste, look, or feel

Center for Disease Control and Prevention

- ▶ www.cdc.gov
- ▶ [Learn the Signs. Act Early.](#)
- ▶ [Developmental Milestones Matter!](#)
- ▶ [See *Milestones in Action* – FREE photos and videos of developmental milestones](#)
- ▶ [Free Tools: Track Your Child's Development](#)

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- ▶ <http://www.autismnavigator.com/>
 - ▶ <https://www.autismspeaks.org/>
 - ▶ <http://www.asatonline.org/>

The Activity Kit for Babies and Toddlers at Risk

How to Use Everyday Routines to Build
Social and Communication Skills



Deborah Fein, PhD, Molly Helt, PhD,
Lynn Brennan, BCBA-D, and Marianne Barton, PhD

Autism Spectrum Disorders

- ▶ **Early Intervention (birth – 3 years)**
- ▶ **Home-based services**
- ▶ **Team of professionals**

Seminal ABA Autism Research

- ▶ **Lovaas, Koegel, Simmons & Long, 1973**
- ▶ **Fenske, Zalski, Krantz & McClannahan, 1985**
- ▶ **Lovaas, 1987**
- ▶ **McEachin, Smith & Lovaas, 1993**
- ▶ **Howard, Sparkman, Cohen, Green & Stanislaw, 2005**
- ▶ **Sallows & Graupner, 2005**
- ▶ **Cohen, Amerine-Dickens & Smith, 2006**

ABA Autism Research

J Autism Dev Disord (2012) 42:512–520
DOI 10.1007/s10803-011-1218-9

ORIGINAL PAPER

Overview of Meta-Analyses on Early Intensive Behavioral Intervention for Young Children with Autism Spectrum Disorders

Brian Reichow

Behavioral Interventions
Behav. Intervent., 13, 201–226 (1998)

COST–BENEFIT ESTIMATES FOR EARLY INTENSIVE BEHAVIORAL INTERVENTION FOR YOUNG CHILDREN WITH AUTISM—GENERAL MODEL AND SINGLE STATE CASE

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PROTOCOL FOR REVIEWING INTERVENTIONS FOR
CHILDREN AND STUDENTS WITH AN AUTISM SPECTRUM DISORDER TOPIC AREA
VERSION 3.0 (AUGUST 31, 2015)

This review-specific protocol guides the review of research that informs the What Works Clearinghouse (WWC) intervention reports in the Children and Students with an Autism Spectrum Disorder topic area. The review-specific protocol is used in conjunction with the [WWC Procedures and Standards Handbook \(version 3.0\)](#).

PURPOSE STATEMENT

This review focuses on interventions designed for use with children and students ages 18 months to 21 years old with an autism spectrum disorder (ASD). The review will examine the effect of interventions on the following types of outcomes: academic, communication/language competencies, problem behaviors, school engagement, self-care/daily living, self-determination, social-emotional, and transitional (i.e., the behavioral, social, and functional skills that enable young adults with disabilities to obtain and hold meaningful employment, live independently, and obtain further training and education). Interventions must be implemented in authentic education settings.



Effective Health Care Program

Comparative Effectiveness Review
Number 137

Therapies for Children With Autism Spectrum Disorder: Behavioral Interventions Update

Practical Functional Assessment

Understanding Problem Behavior Prior to its Treatment

[About](#) [Publications](#) [Tutorials](#) [Q&A for BCBA's](#) [Implementation Assistance](#) [For Parents](#) [Up](#)

Recent Research on Practical Functional Assessment and Treatment

ghanley19 / March 21, 2017



Three studies relevant to the practical functional assessment and treatment of problem behavior have been published over the past few months. A brief description of each and links to the articles follow.

- A reasonable question regarding the practical functional assessment process is the extent to which it may be effective in different contexts and with individuals of different ages or diagnoses. The generality and present limits of the practical functional assessment process is described in this article. In addition, this article reveals a way to conduct a functional analysis in 5 minutes. To see this article, click [here](#).
- When BCBA's receive training on how to conduct a functional analysis, they usually learn how to conduct a standard functional analysis, which involves the isolated testing of generic reinforcement contingencies on one or a few topographies of dangerous behavior. By conducting both practical functional assessment processes as well as standard analyses with nine persons with autism who engaged in severe problem behavior, the relative advantages

Dissemination

*“The ability of science to deliver on its promise of practical and timely solutions to the world’s problems does not depend solely on research accomplishments but also on the **receptivity** of society to the implications of scientific discoveries.”*

- Agre & Leshner, 2010

J Autism Dev Disord (2015) 45:2411–2428
DOI 10.1007/s10803-015-2407-8



ORIGINAL PAPER

Naturalistic Developmental Behavioral Interventions: Empirically Validated Treatments for Autism Spectrum Disorder

Laura Schreibman · Geraldine Dawson · Aubyn C. Stahmer ·
Rebecca Landa · Sally J. Rogers · Gail G. McGee · Connie Kasari ·
Brooke Ingersoll · Ann P. Kaiser · Yvonne Bruinsma ·
Erin McNerney · Amy Wetherby · Alycia Halladay

Early Intervention for Children With Autism Spectrum Disorder Under 3 Years of Age: Recommendations for Practice and Research

abstract

This article reviews current evidence for autism spectrum disorder (ASD) interventions for children aged <3 years, based on peer-reviewed articles published up to December 2013. Several groups have adapted treatments initially designed for older, preschool-aged children with ASD, integrating best practice in behavioral teaching methods into a developmental framework based on current scientific understanding of how infants and toddlers learn. The central role of parents has been emphasized, and interventions are designed to incorporate learning opportunities into everyday activities, capitalize on “teachable moments,” and facilitate the generalization of skills beyond the familiar home setting. Our review identified several comprehensive and targeted treatment models with evidence of clear benefits. Although some trials were limited to 8- to 12-week outcome data, enhanced outcomes associated with some interventions were evaluated over periods as long as 2 years. Based on this review, recommendations are proposed for clinical practice and future research. *Pediatrics* 2015;136:S60–S81

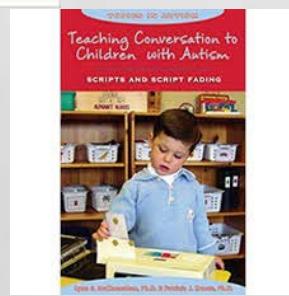
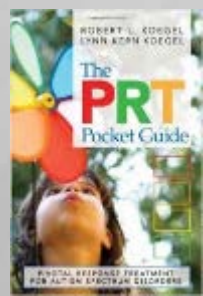
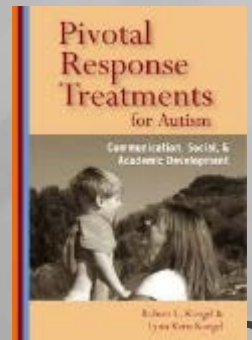
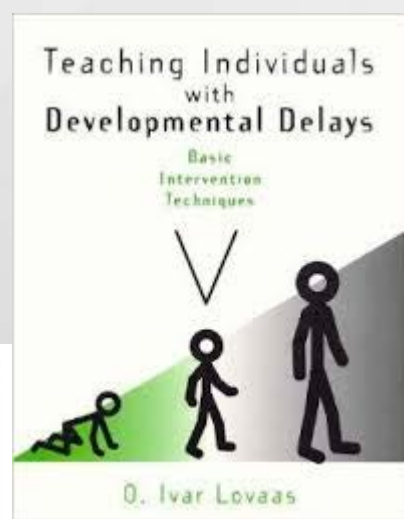
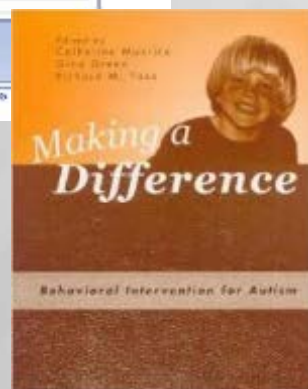
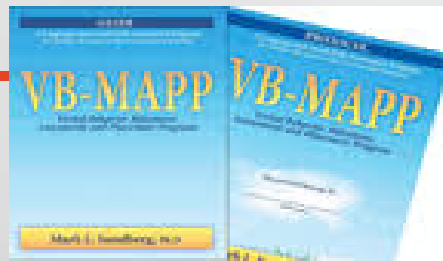
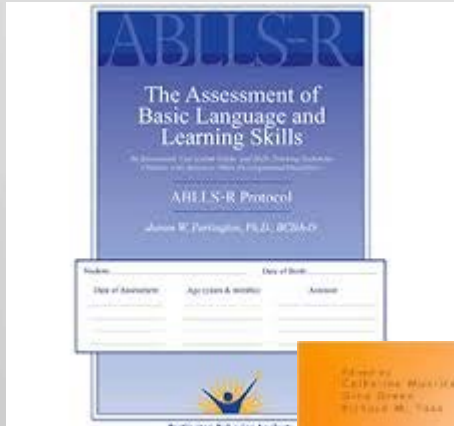
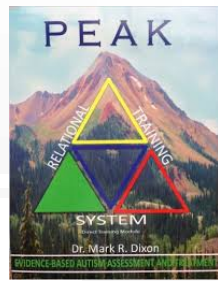
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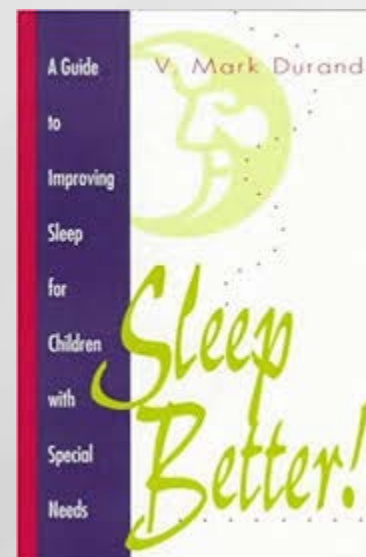
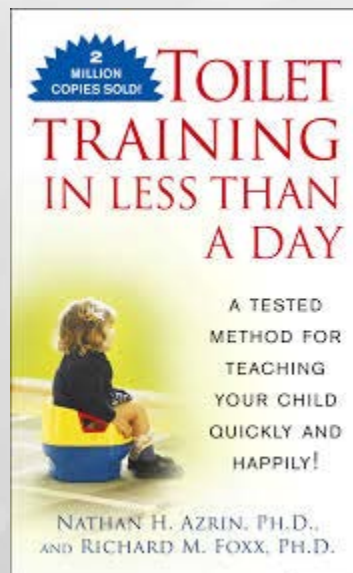
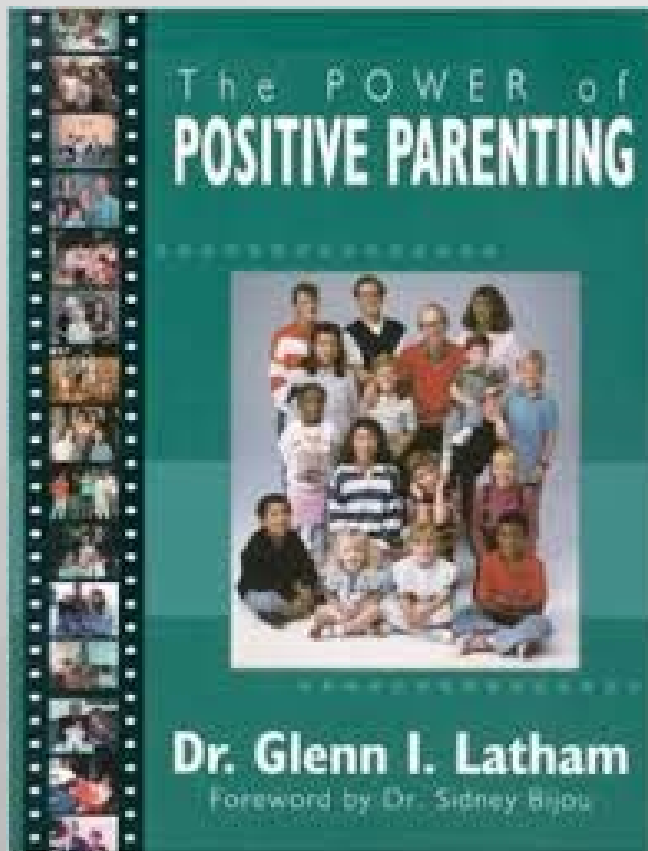
ABBREVIATIONS

ABA—applied behavior analysis
ASD—autism spectrum disorder
ESDM—Early Start Denver Model
GRADE—Grading of Recommendations Assessment, Development, and Evaluation

(Continued on last page)

Applied Behavior Analysis





ABA for the treatment of food selectivity



What constitutes an ABA program?

- ▶ **Applied**
- ▶ **Behavioral**
- ▶ **Analytic**
- ▶ **Technological**
- ▶ **Conceptually Systematic**
- ▶ **Effective**
- ▶ **Promote Generalization**

What constitutes an ABA program?

- ▶ **Accountable**
- ▶ **Public**
- ▶ **Doable**
- ▶ **Empowering**
- ▶ **Optimistic**

Strategies to Address Shortcomings

- ▶ **Sequential Modification**
- ▶ **Program Common Stimuli**
- ▶ **Train Sufficient Exemplars**
- ▶ **Train Loosely**
- ▶ **Use Indiscriminable Contingencies**
- ▶ **Introduce Natural Maintaining Contingencies**
- **Mediate Generalization**
- **Train to “Generalize”**

*****Social Validity as a process**

In Summary

- ▶ **Collaborative**
- ▶ **Effective**
- ▶ **Generalizable**
- ▶ **Sustainable**

Thank you!

***Questions
Comments***

***Go make meaningful
differences everyday!***

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Upcoming Events

ASD Series: Early Childhood to School Age (3-16)

Cheryl A. Rhodes, M.S., LMFT, Cheryl Klaiman, Ph.D., and
Shannon Hewett

April 27, 2017 | 12–1pm

ASD Series: Adolescents and Young Adults (14-21)

Peter F. Gerhardt, Ed.D.

May 23, 2017 | 12–1pm



Thank you!