



Intervention Approaches Used for Children With Autism Spectrum Disorders

As soon as the diagnosis of an autism spectrum disorder (ASD) is made, your child should be referred for intervention services. While speech and occupational therapy are important, the social and communication differences of a child with an ASD need a therapy team. That team should use special intervention strategies that do not necessarily depend on imitation or understanding social cues. A coordinated approach to intervention that is *evidence-based* is recommended. This means that there have been scientific studies that prove that the intervention helps children with ASDs. No matter what approach to therapy is used for your child with an ASD, it is very important that caregivers are involved and can use the approach at home and in the community as they interact with the child.

What is applied behavior analysis (ABA)?

Applied behavior analysis is an intervention approach that teaches children developmental, social, and language skills using several different methods, including

- *Discrete trial training*. Reinforcement is used to teach new responses.
- *Pivotal response training*. This approach addresses areas such as responding to cues, motivation, and self-initiation to affect function.
- *Functional communication training* and *applied verbal behavior*. Both use principles of ABA to improve use of communication.

Specific goals are set by the therapy team, and the therapist works intensively with the child, one-on-one and one goal at a time. Applied behavior analysis has been found to be effective in improving functional skills and reducing challenging behaviors. While an increase in IQ and resolution of ASD symptoms have not been shown, studies to date support the effectiveness of ABA in skill-building and improvement in challenging behaviors. Initial studies suggested that 40 hours per week was needed for improvement, but later studies have shown improvement in 25 or fewer total hours of intervention per week.

Have any therapies been found to affect core symptoms of ASDs?

Recent research has shown that the Early Start Denver Model, which provides a combination of developmental and behavioral approaches, affects core symptoms of ASDs in young children with an approach used first at home, then in a structured preschool. It calls for a trained interdisciplinary team to implement a developmental curriculum, focus on encouraging interpersonal skills, develop spontaneous and reciprocal imitation and object use, focus on cognitive aspects of play, and partner with parents. Currently, this approach is limited to research settings.

Are there other approaches to intervention that are commonly used?

There are other intervention methods that address a theoretical approach to the core symptoms of ASDs or are based on practical experience but have not been studied to understand if they are effective, how they affect outcome, and which children and youth might respond to these approaches.

What is the Treatment and Education of Autistic and Related Communication-Handicapped Children (TEACCH) program?

TEACCH is one of the oldest and most widely used programs in schools. Parents and teachers are taught how to develop structured teaching programs that meet the specific needs of each child. Each child's learning strengths and functional communication are built on. Visual organization cues are used to maintain a consistent and structured daily routine that helps build new skills and independence. The program covers the age span from preschool to adulthood. Planning for transition from school to supported employment includes an emphasis on developing appropriate social, adaptive, and communication skills. Parents are considered critical agents of change, not only for their own child but also in service development and the community as well.

What is the Developmental, Individual Difference, Relationship-based (DIR) Model?

The DIR Model is a developmental model for intervention that uses play, interaction, and sensory experiences in the natural environment to address core deficits of ASDs for an individual child. The model helps a child learn to regulate, relate, and communicate through play-based interactions. Although it has elements in common with other methods, it differs in that it does not follow a solely adult-directed curriculum. Caregivers, educators, and therapists follow the child's lead in playful interactions. A hierarchy of floor-time strategies is used to help the child learn to engage in back-and-forth interactions, use ideas in pretend play, and communicate. It is important that caregivers use the DIR approach across the child's day to help the child build competency in communication and play. Scientific studies have not yet looked at the effect the DIR Model has on specific aspects of outcome or the components of therapy that are most effective.

What is the Social Communication, Emotional Regulation, and Transactional Support (SCERTS) Model?

The SCERTS Model is intended for use by parents and school personnel to understand the motivation and communication of students with ASDs and flexibly adapt programs to support communication and social development.

What is the Relationship Development Intervention (RDI) program?

The RDI program is family-based with trained consultants supporting parents in their interactions with their child with an ASD. Objectives are developmentally staged to optimize communication and social and emotional functioning in the child's natural environment. Parents use natural events as well to model appropriate responses and provide opportunities to teach the child developmental skills.

More research is needed to understand what type of therapy will be most effective for what child, the best combination of therapies, and how to use these therapeutic approaches in the classroom setting at school age and beyond. Talk with your child's pediatrician about which type of intervention or therapy is right for your child.

Resources

American Academy of Pediatrics HealthyChildren.org:

www.HealthyChildren.org

Association for Science in Autism Treatment Summaries of Scientific Research on Interventions on Autism: www.asatonline.org/treatment/treatments_desc.htm

Autism Speaks treatment information: www.autismspeaks.org/what-autism/treatment

DIR: www.icdl.com

RDI: www.rdiconnect.com

SCERTS: www.scerts.com

TEACCH: www.teacch.com

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