

DIR® and DIRFloortime®

Evidence-Base Quick Facts



The following is a brief sample of the evidence-base supporting DIR and DIRFloortime (Floortime). The research includes the highest levels of evidence and includes case studies, group design studies, randomized controlled trial studies, and systematic reviews. Unlike behavioral approaches which narrowly focus on specific behaviors, DIR is an interdisciplinary, individualized, whole-child, developmental approach that is broad in both its approach and its impact.

Multiple randomized-controlled studies were published since 2011 identifying statistically significant improvement in children with autism who used Floortime versus traditional behavioral approaches (Solomon, et. al., 2014; Casenhiser, Shanker &Steiben, 2011; Lal and Chhabria, 2013; Pajareya and Kopmaneejumruslers, 2011, Pajareya et. al., 2019

Solomon, Necheles, Ferch, and Bruckman (2007) conducted a pre-post survey of the Play and Language for Autistic Younsters (PLAY) Project Home Consultation program. This program is a Floortime program. Results indicated statistically significant improvement in the children's Functional Developmental Levels and 100% of the parents reported satisfaction in participating.

The cost associated with the DIRFloortime-based weekly intervention program as described in Casenhiser et al. (2012) is approximately \$5000 per child per year, which is considerably less than the estimates of therapy for most therapist-delivered programs that typically provide 20–30 weekly hours of treatment (Flanders et al., 2005; Motiwala et al., 2006).

Case studies have also been effective in supporting the use of DIRFloortime with children with autism. Dionne and Martini (2011) demonstrated statistically significant improvement in communication between parent and child. Wieder and Greenspan (1997, 2005) did comprehensive case studied that spanned from 8-15 years. These studies supported the long-lasting results DIRFloortime had on individual child skills, as well as, the emotional connections the families were able to develop over time using this approach.

Floortime and related DIR based approaches are listed on evidence-based treatment reviews. For example, the Journal of Clinical Child and Adolescent Psychology published an article entitled, "Evidenced Base Update for Autism Spectrum Disorder" where they categorized Floortime as a "Developmental Social Pragmatic (DSP) Parent Training" and listed focused DSP Parent Training in their second level evidence base category indicating it as "Probably Efficacious." (Smith & Iadarola, 2015) In addition, a systematic review of developmental social pragmatic approaches including DIRFloortime was published in January, 2019 that supported the efficacy of developmental social pragmatic approaches for children with autism (Binns and Cardy, 2019).

Not only is the research supporting Floortime expanding, there is increasing research, analysis, and reviews that are raising questions about the research on ABA and behavioral approaches. In the recent 2020 Project AIM: Autism intervention meta-analysis for studies of young children published in the American

Psychological Association's Psychological Bulletin they found that developmental approaches had stronger evidence to support effectiveness than behavioral approaches. Also, in a recent report by the US Department of Defense on the TRICARE Autism Care Demonstration which was an ABA benefit that was provided to children covered under the benefit, they reported that 76% of those that received the services has little to no change and 9% actually worsened. (TRICARE is the health insurance coverage for many in the US military and Department of Defense.)

In a January, 2020 report by the American Academy of Pediatrics entitled "Identification, Evaluation, and Management of Children with Autism Spectrum Disorder", they stated, "Intervention for young children also may be derived from developmental theory, which is focused on the relationship between the caregiver's level of responsiveness and the child's development of social communication. Through interaction with others, children learn to communicate and regulate emotions and establish a foundation for increasingly complex thinking and social interaction. Therefore, developmental models designed to promote social development in children with ASD are focused on the relationship between the child with ASD and his or her caregiver through coaching to help increase responsiveness to the adult (ie, the interventionist or parent or caregiver) through imitating, expanding on, or joining into child-initiated play activities. This approach may address core symptoms of ASD, such as joint attention, imitation, and affective social engagement. Developmental models for intervention are focused on teaching adults to engage in nondirective interactive strategies to foster interaction and development of communication in the context of play. One such approach is known as DIRFloortime (The Developmental, Individual Differences, and Relationship-Based model)." (Hyman et. al., 2020)

In an article published in the Journal of the American Medical Association in November, 2020 entitled, "Intervention Recommendations for Children with Autism in Light of a Changing Evidence Base" they recommended that pediatricians need to consider recommending a wider range of options to parents. In regards to the changing evidence based, they reported, "There has been a recent precipitous increase in both the quantity and quality of research examining interventions for young children with autism. From 2011 to 2018, the reported number of randomized clinical trials (RCTs) of interventions for young children with autism increased from 2 to 48.7 To summarize this transforming evidence base, we systematically reviewed and meta-analyzed 150 reports of 130 studies, 87 of which were RCTs, which collectively reported effect sizes for 1615 outcomes, representing 6240 young children with autism.² Several findings emerged from this research, but 2 are of direct relevance to pediatricians directing families to services and supports following diagnosis. First, 3 intervention approaches that, at present, are not commonly recommended have garnered more substantial empirical support from RCTs relative to behavioral interventions. These are naturalistic developmental behavioral interventions (NDBIs) and developmental interventions. Although distinct from one another, these interventions are alike in that they are provided in children's natural contexts (eg, everyday interactions with caregivers) and their learning targets are guided by early developmental sequences. These attributes may make them preferable to families, since they are less likely to disrupt and separate children from family routines than more structured clinician-led interventions." (Sandbank et. al., 2020)

The evidence is strong and building – DIRFloortime works! Learn more at www.icdl.com/research.

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