

Relationship Development Intervention (RDI®) Evidence Based Practice for Remediating Symptoms of Autism Spectrum Disorder

Relationship Development Intervention (RDI) is a cost-effective research-guided intervention approach for remediating autism spectrum disorders. The program uses a parent-training model to help children learn skills like joint attention, social referencing, theory of mind, social reciprocity, and communication for experience sharing purposes. It is an evidence-based practice approach that makes use of a combination of the best available research and clinical expertise in treatment decisions (Twachtman-Cullen, 2009). The following are peer-reviewed published articles document evidence of its efficacy for children with ASD.

- Gutstein, S. E., Burgess, A. F., & Montfort, K. (2007). Evaluation of the relationship development intervention program. *Autism, 11*(5), 397-411.
- Gutstein, S. E. (2009). Empowering families through relationship development intervention: an important part of the biopsychosocial management of autism spectrum disorders. *Ann Clin Psychiatry, 21*(3), 174-182.
- Beurkens, N. M., Hobson, J. A., & Hobson, R. P. (2013). Autism severity and qualities of parent-child relations. *Journal Of Autism And Developmental Disorders, 43*(1), 168-178.
- Larkin, F., Guerin, S., Hobson, J. A., & Gutstein, S. E. (2013). The Relationship Development Assessment—Research Version: Preliminary validation of a clinical tool and coding schemes to measure parent-child interaction in autism. *Clinical Child Psychology And Psychiatry, 13*59104513514065.
- Hobson, J. A., Tarver, L., Beurkens, N., & Hobson, R. P. (2016). The Relation between Severity of Autism and Caregiver-Child Interaction: A Study in the Context of Relationship Development Intervention. *Journal of Abnormal Child Psychology, 44*(4), 745-55. doi: 10.1007/s10802-015-0067-y.
- Kerwin, M.E., Soreth, M.E., & Gangemi, C. (2016). Preliminary efficacy of Relationship Development Intervention and Parent-Implemented Applied Behavior Analysis/Verbal Behavior on joint attention and communication of preschool children with autism. *Poster presented at the meeting of the International Meeting for Autism Research (IMFAR), May 2016, Baltimore, MD, USA.*

A broader examination of the literature demonstrates a growing body of empirical research evidence and best practice recommendations supporting the practices embedded in RDI™. Specifically, RDI™ is a family-centered, intensive, objective driven, individualized intervention targeting the components of social-emotional development in the context of the parent-child relationship. The articles listed below document the peer-reviewed published evidence supporting the core components of RDI™ for treating autism spectrum disorders.

SUPPORT FOR RDI – remediating the core deficits of autism in a developmental progression

Aldred, C., Green, J., and Adams, C. (2004). A new social communication intervention for children with autism: pilot randomized controlled treatment study suggesting effectiveness. *Journal of Child Psychology & Psychiatry, 45*(8), 1420-1430.

Hobson, J. A., Hobson, P., Gutstein, S., Ballarani, A., Bargiota, K. (2008). Caregiver-child relatedness in autism, what changes with intervention? *Poster presented at the meeting of the International Meeting For Autism Research (IMFAR), April 2008, London, UK.*

Howlin, P. (2008). Can children with autism spectrum disorders be helped to acquire a “theory of mind”?

Revista de Logopediay Audiologia, Vol. 28(7), 74-89.

Jones E. A., Carr E. G., Feeley K. M. (2006). Multiple effects of joint attention intervention for children with autism. *Behavior Modification*. Nov. 30(6):782-834.

Kasari C, Freeman S, Paparella T. (2006). Joint attention and symbolic play in young children with autism: a randomized controlled intervention study. *Journal of Child Psychology and Psychiatry*, 47(6) 611-20.

Keen D, Rodger S, Doussin K, Braithwaite M. (2007) Pilot study of the effects of a social-pragmatic intervention on the communication and symbolic play of children with autism. *Autism*, 11(1), 63-71.

Mahoney, G., and F. Perales (2005). Relationship-focused early intervention with children with pervasive developmental disorders and other disabilities: a comparative study. *Journal of Developmental & Behavioral Pediatrics*, 26(2), 77-85.

Schertz, H. H., Odom, S. L. (2007). Promoting joint attention in toddlers with autism: a parent-mediated developmental model. *Journal of Autism and Developmental Disorders*. Sept., 37(8) pp. 1562-1575.

Siller, M. & Sigman, M. (2008). Modeling longitudinal change in the language abilities of children with autism: parent behaviors and child characteristics as predictors of change. *Developmental Psychology*, 44(6), 1691-1704.

Solomon, R., Necheles, J., Ferch, C. & Bruckman, D. (2007). Pilot study of a parent training program for young children with autism: The P.L.A.Y. Project Home Consultation program. *Autism*, 11, no.3, 205-224.

Tannock, R., Girolametto, L. & Siegal, L. (1992) Language intervention with children who have developmental delays: Effects of an interactive approach. *American Journal on Mental Retardation*, 97, 145-160.

Whalen, C. and Schreibman, L. (2003). Joint attention training for children with autism using behavior modification procedures. *Journal of Child Psychology and Psychiatry*, 44(3) 456-468.

SUPPORT FOR RDI – improving overall functioning (per special education placement, ADOS diagnostic category, and other normed valid measures of ASD symptoms like flexibility and joint attention)

Gutstein, S., (2005) Relationship Development Intervention: Developing a Treatment Program to Address the Unique Social and Emotional Deficits in Autism Spectrum Disorder. *Autism Spectrum Quarterly*, Winter, 8-12.

Gutstein, S., Burgess, A. & Montfort, K. (2007). Evaluation of the Relationship Development Intervention Program. *Autism*, 11, 397-411.

Hobson, J. A., Hobson, P., Gutstein, S., Ballarani, A., Bargiota, K. (2008) Caregiver-child relatedness in autism, what changes with intervention? Poster presented at the meeting of the *International Meeting for Autism*

Research.

SUPPORT FOR RDI – training parents through ongoing consultation and using the parent-child relationship as a natural context for child learning and growth

Aldred, C., Green, J., and Adams, C. (2004). A new social communication intervention for children with autism: pilot randomized controlled treatment study suggesting effectiveness. *Journal of Child Psychology & Psychiatry*, 45(8), 1420-30.

Beurkens, N.M., Hobson, J.A., Hobson, R.P. (2013). Autism severity and qualities of parent-child relations. *J Autism Dev Disord.*, 43(1), 168-78. doi: 10.1007/s10803-012-1562-4.

Casenhiser, D., Shanker, S.G., & Stieben, J. (2011). Learning Through Social Interactions in Children with Autism: Preliminary Data from a Social-Communications-Based Intervention. *Autism*, 26, Sept: 1-22.

Center on the Developing Child at Harvard University. (2015). *Supportive Relationships and Active Skill-Building Strengthen the Foundations of Resilience: Working Paper 13*. www.developingchild.harvard.edu.

Dawson, G., Rogers, S., et al. (2010). RCT of an Intervention for Toddlers with Autism: The Early Start Denver Model. *Pediatrics*, 125(1).

Drew, A., G. Baird, S. Baron-Cohen, A. Cox, V. Slonim, S. Wheelwright, J. Swettenham, B. Berry, and T. Charman. (2002). A pilot randomized control trial of parent training intervention for pre-school children with autism. *European Child & Adolescent Psychiatry*, 11, 266-272.

Green, J., Charman, T., McConachie, H., et al. (2010). Parent-mediated communication-focused treatment in children with autism (PACT): A randomized controlled trial. *Lancet Online*, May 21.

Greenspan, S.I., & Wieder, S. (1997). Developmental Patterns and Outcomes in Infants and Children with Disorders in Relating and Communication: A Chart Review of 200 Cases of Children with Autistic Spectrum Disorders. *The Journal of Developmental and Learning Disorders*, 1(1), 87-141.

Gutstein, S. (2004). The effectiveness of Relationship Development Intervention in remediating core deficits of autism-spectrum children, *Journal of Developmental and Behavioral Pediatrics*, 25(5), 375.

Gutstein, S. E., Burgess, A. F., & Montfort, K. (2007). Evaluation of the relationship development intervention program, *Autism*, 11(5), 397-411.

Ingersoll, B., Dvortcsak, A., Whalen, C. & Sikora, D. (2005). The Effects of a Developmental, Social-Pragmatic Language Intervention on Rate of Expressive Language Production in Young Children With Autistic Spectrum Disorders, *Focus of Autism and Other Developmental Disorders*, 20(4), 213-222.

Jones E. A., Carr E. G., Feeley K. M. (2006). Multiple effects of joint attention intervention for children with autism. *Behavior Modification*. Nov. 30(6):782-834.

- Kasari, C., Gulsrud, A.C., Wong, C., Kwon, S. & Locke, J. (2010). Randomized controlled caregiver mediated joint engagement intervention for toddlers with autism, *Journal of Autism and Developmental Disorders*, 40(9): 1045–1056.
- Kasari, C., Paparella, T., Freeman, S., & Jahromi, L.B. (2008). Language outcome in autism: randomized comparison of joint attention and play interventions, *Journal of Consulting and Clinical Psychology*, 76(1), 125-137.
- Landa, R.J., Holman, K.C., O'Neill, A.H., & Stuart, E.A. (2011). Intervention targeting development of socially synchronous engagement in toddlers with autism spectrum disorder: A randomized controlled trial, *Journal of Child Psychology and Psychiatry*, 52(1), 13-21.
- Krebs Seida, J., Ospina, M., Karkhaneh, M., Hartling, L., Smith, V. & Clark, B. (2009). Systemic reviews of psychosocial interventions for autism: An umbrella review, *Developmental Medicine & Child Neurology*, 51, 95-104.
- Mahoney, G. & Perales, F. (2003). Using relationship-focused intervention to enhance the social emotional functioning of young children with autism spectrum disorders. *Topics in Early Childhood Special Education*, 23(2), 74–86.
- Mahoney, G., & Perales, F. (2005). Relationship-focused early intervention with children with pervasive developmental disorders and other disabilities: a comparative study, *Journal of Developmental & Behavioral Pediatrics*, 26(2), 77-85.
- McConachie H., Diggle T. (2007), Parent implemented early intervention for young children with autism spectrum disorder: a systematic review. *Journal of Evaluation in Clinical Practice*. Feb, 13(1), 120-9.
- McConachie, H., Randle, V., Hammal, D., & Le Couteur, A. (2005). A controlled trial of a training course for parents of children with suspected autism spectrum disorder. *Journal of Pediatrics*, 147(3), 335-340.
- Ospina, M., Krebs Seida, J., Clark, B., Karkhaneh, M., Hartling, L., Tjosvold, L., Vandermeer, B. & Smith, V. (2008). Behavioural and Developmental Interventions for Autism Spectrum Disorder: A Clinical Systematic Review, *PLoS ONE*, 3(11), e3755. doi:10.1371/journal.pone.0003755.
- Pajareya, K. & Nopmaneejumruslers, K. (2011). A pilot RCT of DIR/Floortime parent training intervention for pre-school children with ASD, *Autism*, 15(2), 1-15.
- Prizant, B.M. & Wetherby, A.M. (1998). Understanding the continuum of “discrete-trial traditional behavioral” to “social-pragmatic developmental” approaches to communication enhancement for young children with autism/PDD, *Seminars in Speech and Language*, 19, 329–353.
- Reichow, B., Volkmar, & Cicchetti, (2008). Development of the Evaluative Method for Evaluating and Determining Evidence-Based Practices in Autism, *J. Autism Dev. Disord.*, 38, 1311.
- Schertz, H. H., Odom, S. L. (2007). Promoting joint attention in toddlers with autism: a parent-mediated developmental model. *Journal of Autism and Developmental Disorders*. Sept. 37(8) pp. 1562-1575.
- Siller, M. & Sigman M. (2002). The behaviors of parents of children with autism predict the subsequent development of their children’s communication. *Journal of Autism and Developmental Disorders*, 32(2), 77-89.

Solomon, R., Necheles, J., Ferch, C., & Bruckman, D. (2007). Pilot study of a parent training program for young children with autism: The P.L.A.Y. Project Home Consultation program, *Autism*, 11(3), 205-224.

SUPPORT FOR RDI – incorporating intervention into daily routines while accounting for caregiver needs and child functioning

Aldred, C., Green, J., and Adams, C. (2004). A new social communication intervention for children with autism: pilot randomized controlled treatment study suggesting effectiveness. *Journal of Child Psychology & Psychiatry* 45(8), 1420-1430.

Prizant, B. (2008). Treatment Options and Parent Choice: An Individualized Approach to Intervention, *Autism Spectrum Quarterly*, Winter, 34-37.

Prizant, B. (2009). Creating a culture of family-centered practice for the autism community, *Autism Spectrum Quarterly*, Summer, 30-33.

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