

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. (2015). The Relation between Severity of Autism and Caregiver-Child Interaction: A Study in the Context of Relationship Development Intervention. *Journal Of Abnormal Child Psychology, 1-11*.

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. & Nopmaneejumrulers, 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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