Module: Naturalistic Intervention

Evidence Base for Naturalistic Intervention

The National Professional Development Center on ASD has adopted the following definition of evidence-based practices.

To be considered an evidence-based practice for individuals with ASD, efficacy must be established through peer-reviewed research in scientific journals using:

- randomized or quasi-experimental design studies. Two high quality experimental or quasi-experimental group design studies,
- single-subject design studies. Three different investigators or research groups must have conducted five high quality single subject design studies, or
- combination of evidence. One high quality randomized or quasi-experimental group design study and three high quality single subject design studies conducted by at least three different investigators or research groups (across the group and single subject design studies).

High quality randomized or quasi experimental design studies do not have critical design flaws that create confounds to the studies, and design features allow readers/consumers to rule out competing hypotheses for study findings. High quality in single subject design studies is reflected by a) the absence of critical design flaws that create confounds and b) the demonstration of experimental control at least three times in each study.

This definition and criteria are based on the following sources:

Horner, R., Carr, E., Halle, J., McGee, G., Odom, S., & Wolery, M. (2005). The use of single subject research to identify evidence-based practice in special education. *Exceptional Children, 71,* 165-180.

Nathan, P., & Gorman, J. M. (2002). *A guide to treatments that work.* NY: Oxford University Press.

Odom, S. L., Brantlinger, E., Gersten, R., Horner, R. D., Thompson, B., & Harris, K. (2004). *Quality indicators for research in special education and guidelines for evidence-based practices: Executive summary.* Arlington, VA: Council for Exceptional Children Division for Research.

Rogers, S. J., & Vismara, L. A. (2008). Evidence-based comprehensive treatments for early autism. *Journal of Clinical Child and Adolescent Psychology*, *37*(1), 8-38.

Using these criteria, the empirical studies that follow provided documentation for supporting Naturalistic Strategies as an evidence-based practice. This list is not exhaustive; other quality studies may exists that were not included.

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Preschool

Ingersoll, B., Lewis, E., & Kroman, E. (2007). Teaching the imitation and spontaneous use of descriptive gestures in young children with autism using a naturalistic behavioral intervention. *Journal of Autism and Developmental Disorders*, *37*, 1446-1456.

Koegel, R., Camarata, S., Koegel, L., Ben-Tall, A., & Smith, A. (1998). Increasing speech intelligibility in children with autism. *Journal of Autism and Developmental Disorders, 28*(3), 241-251.

McGee, G., Almeida, M. C., Sulzer-Azaroff, B., & Feldman, R. (1992). Promoting reciprocal teaching via peer incidental teaching. *Journal of Applied Behavior Analysis, 25*, 117-126.

Yoder, P., & Stone, W. L. (2006). A randomized comparison of the effect of two prelinguistic communication interventions on the acquisition of spoken communication in preschoolers with ASD. *Journal of Speech, Language, and Hearing Research, 49*, 698-711.

Elementary

Charlop, M., Schreibman, L., & Thibodeau, M. (1985). Increasing spontaneous verbal responding in autistic children using a time delay procedure. *Journal of Applied Behavior Analysis, 18*(2), 155-166.

Charlop, M., & Walsh, M. (1986). Increasing autistic children's spontaneous verbalizations of affection: An assessment of time delay and peer modeling procedures. *Journal of Applied Behavior Analysis, 19*(3), 307-314.

Charlop, M., & Trasowech, J. (1991). Increasing autistic children's daily spontaneous speech. *Journal of Applied Behavior Analysis, 24*(4), 747-761.

Koegel, R., Camarata, S., Koegel, L., Ben-Tall, A., & Smith, A. (1998). Increasing speech intelligibility in children with autism. *Journal of Autism and Developmental Disorders, 21*(3), 241-251.

Laski, K., Charlop, M., & Schreibman, L. (1988). Training parents to use the natural language paradigm to increase their autistic children's speech. *Journal of Applied Behavior Analysis, 2*(4), 391-400.

McGee, G., Krantz, P., & McClannahan, L. (1985). The facilitative effects of incidental teaching on preposition use by autistic children. *Journal of Applied Behavior Analysis, 18*, 17-31.

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Middle/High

Hamilton, B., & Snell, M. (1993). Using the milieu approach to increase spontaneous communication book use across environments by an adolescent with autism. *Augmentative and Alternative Communication*, *9*, 259-272.