

Module: Antecedent-Based Interventions

Evidence Base for Antecedent-Based Interventions

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.

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Using these criteria, the empirical studies referenced below provided documentation for supporting the use of antecedent-based interventions as an evidence-based practice.

Preschool

Dadds, M., Schwartz, S., Adams, T., & Rose, S. (1988). The effects of social context and verbal skill on the stereotypic and task-involved behavior of autistic children. *Journal of Child Psychology & Psychiatry*, 29(5), 669-676.

Runco, M. A., Charlop, M. H., & Schreibman, L. (1986). The occurrence of autistic children's self-stimulation as a function of familiar versus unfamiliar stimulus conditions. *Journal of Autism & Developmental Disorders*, 16(1), 31-44.

Schilling, D. L., & Schwartz, I. S. (2004). Alternative seating for young children with autism spectrum disorder: Effects on classroom behavior. *Journal of Autism & Developmental Disorders*, 34(4), 423-432.

Elementary

Dadds, M., Schwartz, S., Adams, T., & Rose, S. (1988). The effects of social context and verbal skill on the stereotypic and task-involved behavior of autistic children. *Journal of Child Psychology & Psychiatry*, 29(5), 669-676.

Runco, M. A., Charlop, M. H., & Schreibman, L. (1986). The occurrence of autistic children's self-stimulation as a function of familiar versus unfamiliar stimulus conditions. *Journal of Autism & Developmental Disorders*, 16(1), 31-44.

Middle/High School

Ahearn, W. H., Clark, K. M., DeBar, R., & Florentino, C. (2005). On the role of preference in response competition. *Journal of Applied Behavior Analysis*, 38(2), 247-250.

Moore, J., Fisher, W., & Pennington, A. (2004). Systematic application and removal of protective equipment in the assessment of multiple topographies of self-injury. *Journal of Applied Behavior Analysis*, 37(1), 73-77.