

Treatment Intervention Advisory Committee Review and Determination

Date: July 31, 2015

To: DHS/DLTC

ACK

From: Wisconsin Department of Health Services, Treatment Intervention Advisory Committee: Lana Collet-Klingenberg, Ph.D. (chairperson)

RE: Determination of Relationship Development Intervention as a proven and effective treatment for individuals with autism spectrum disorder and/or other developmental disabilities

This is an initial review

This is a re-review. The initial review was November 7, 2011

Section One: Overview and Determination

Please find below a statement of our determination as to whether or not the committee views Relationship Development Intervention (RDI) as a proven and effective treatment for children with autism spectrum disorder and/or other developmental disabilities. In subsequent sections you will find documentation of our review process including a description of the proposed treatment, a synopsis of review findings, the treatment review evidence checklist, and a listing of the literature considered. In reviewing treatments presented to us by DHS/DLTC, we implement a review process that carefully and fully considers all available information regarding a proposed treatment. Our determination is limited to a statement regarding how established a practice is in regard to quality research. We do not make funding decisions.

Description of proposed treatment

From the Autism Speaks website at <https://www.autismspeaks.org/what-autism/treatment/relationship-development-intervention-rdi>: “Relationship Development Intervention® (RDI) is a family-based, behavioral treatment designed to address autism’s core symptoms. Developed by psychologist Steven Gutstein, Ph.D., it builds on the theory that “dynamic intelligence” is key to improving quality of life for individuals with autism. Dr. Gutstein defines dynamic intelligence as the ability to think flexibly. This includes appreciating different perspectives, coping with change and integrating information from multiple sources (e.g. sights and sounds). RDI aims to help individuals with autism form personal relationships by gradually strengthening the building blocks of social connections. This includes the ability to form an emotional bond and share experiences.”

Synopsis of review

In the case of RDI, please refer to the attached reference list which details the reviewed research. The committee’s conclusions regarding RDI include the fact this re-review is expanded by one article, however:

- The design lacks controls to make judgments regarding behavioral changes due to the RDI technique.
- The data did not measure specific elements of the program or dependent variable properties to allow for analysis of any co-variation.

- The procedure's description lacked detail necessary for replication.
- The one subject's data that was presented was selected by the authors—it was not randomly selected.
- No comparison groups/individuals were evaluated, so relative changes across treated and untreated children cannot be discerned.

In sum, it is the decision of the committee that RDI remain at a Level 4 rating – Insufficient Evidence (Experimental Treatment).

Section Two: Rationale for Focus on Research Specific to Comprehensive Treatment Packages (CTP) or Models

In the professional literature, there are two classifications of interventions for individuals with Autism Spectrum Disorder (National Research Council, 2001; Odom et al., 2003; Rogers & Vismara, 2008):

- (a) **Focused intervention techniques** are individual practices or strategies (such as positive reinforcement) designed to produce a specific behavioral or developmental outcome, and
- (b) **Comprehensive treatment models** are “packages” or programs that consist of a set of practices or multiple techniques designed to achieve a broader learning or developmental impact.

To determine whether a treatment package is proven and effective, the Treatment Intervention Advisory Committee (TIAC) will adopt the following perspective as recommended by Odom et al. (2010):

The individual, focused intervention techniques that make up a comprehensive treatment model may be evidence-based. The research supporting the effectiveness of separate, individual components, however, does *not* constitute an evaluation of the comprehensive treatment model or “package.” The TIAC will consider and review only research that has evaluated the efficacy of implementing the comprehensive treatment *as a package*. Such packages are most often identifiable in the literature by a consistently used name or label.

National Research Council. (2001). *Educating children with autism*. Washington, DC: National Academy Press.

Odom, S. L., Brown, W. H., Frey, T., Karusu, N., Smith-Carter, L., & Strain, P. (2003) Evidence-based practices for young children with autism: Evidence from single-subject research design. *Focus on Autism and Other Developmental Disabilities, 18*, 176-181.

Odom, S. L., Boyd, B. A., Hall, L. J., & Hume, K. (2010). Evaluation of comprehensive treatment models for individuals with Autism Spectrum Disorders. *Journal of Autism and Developmental Disorders, 40*, 425-436.

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

Section Three: DLTC-TIAC Treatment Review Evidence Checklist

Name of Treatment: Relationship Development Intervention (RDI)

Level 1- Well Established or Strong Evidence (DHS 107 - Proven & Effective Treatment)

- Other authoritative bodies that have conducted extensive literature reviews of related treatments (e.g., National Standards Project, National Professional Development Center) have approved of or rated the treatment package as having a strong evidence base; authorities are in agreement about the level of evidence.
- There exist ample high quality studies that demonstrate experimental control and favorable outcomes of treatment package.
 - Minimum of two group studies or five single subject studies or a combination of the two.
 - Studies were conducted across at least two independent research groups.
 - Studies were published in peer reviewed journals.
- There is a published procedures manual for the treatment, or treatment implementation is clearly defined (i.e., replicable) within the studies.
- Participants (i.e., N) are clearly identified as individuals with autism spectrum disorders or developmental disabilities.

Notes: At this level, include ages of participants and disabilities identified in body of research

Level 2 – Established or Moderate Evidence (DHS 107 - Proven & Effective Treatment)

- Other authoritative bodies that have conducted extensive literature reviews of related treatments (e.g., National Standards Project, NPDC) have approved of or rated the treatment package as having at least a minimal evidence base; authorities may not be in agreement about the level of evidence.
- There exist at least two high quality studies that demonstrate experimental control and favorable outcomes of treatment package.
 - Minimum of one group study or two single subject studies or a combination of the two.
 - Studies were conducted by someone other than the creator/provider of the treatment.
 - Studies were published in peer reviewed journals.
- Participants (i.e., N) are clearly identified as individuals with autism spectrum disorders or developmental disabilities.

Notes: At this level, include ages of participants and disabilities identified in body of research

Level 3 – Emerging Evidence (DHS 107 – Promising as a Proven & Effective Treatment)

- Other authoritative bodies that have conducted extensive literature reviews of related treatments (e.g., National Standards Project, NPDC) have recognized the treatment package as having an emerging evidence base; authorities may not be in agreement about the level of evidence.
- There exists at least one high quality study that demonstrates experimental control and favorable outcomes of treatment package.
 - May be one group study or single subject study.
 - Study was conducted by someone other than the creator/provider of the treatment.
 - Study was published in peer reviewed journal.
- Participants (i.e., N) are clearly identified as individuals with autism spectrum disorders or developmental disabilities.

Notes: At this level, include ages of participants and disabilities identified in body of research

Level 4 – Insufficient Evidence (Experimental Treatment)

- Other authoritative bodies that have conducted extensive literature reviews of related treatments (e.g., National Standards Project, NPDC) have not recognized the treatment package as having an emerging evidence base; authorities are in agreement about the level of evidence.
- There is not at least one high quality study that demonstrates experimental control and favorable outcomes of treatment package.
 - Study was conducted by the creator/provider of the treatment.
 - Study was not published in a peer reviewed journal.
- Participants (i.e., N) are not clearly identified as individuals with autism spectrum disorders or developmental disabilities.

Notes: In the newly reviewed article, ASD clients may have been included in the aggregate but whether the client whose data is discussed was ASD is not indicated.

Level 5 – Untested (Experimental Treatment) &/or Potentially Harmful

- Other authoritative bodies that have conducted extensive literature reviews of related treatments (e.g., National Standards Project, NPDC) have not recognized the treatment package as having an emerging evidence base; authorities are in agreement about the level of evidence.
- There are no published studies supporting the proposed treatment package.
- There exists evidence that the treatment package is potentially harmful.**
 - Authoritative bodies have expressed concern regarding safety/outcomes.
 - Professional bodies (i.e., organizations or certifying bodies) have created statements regarding safety/outcomes.

Notes: At this level, please specify if the treatment is reported to be potentially harmful, providing documentation

Date: July 31, 2015

Committee Members Completing Initial Review of Research Base: Shannon, Stuart, Roger Bass

Committee Decision on Level of Evidence to Suggest the Proposed Treatment is Proven and Effective:
Level 4 - Insufficient Evidence (Experimental Treatment)

References Supporting Identification of Evidence Levels:

- Chambless, D.L., Hollon, S.D. (1998). Defining empirically supported therapies. *Journal of Consulting and Clinical Psychology*, 66(1) 7-18.
- Chorpita, B.F. (2003). The frontier of evidence---based practice. In A.E. Kazdin & J.R. Weisz (Eds.). *Evidence-based psychotherapies for children and adolescents* (pp. 42---59). New York: The Guilford Press.
- Odom, S. L., Collet-Klingenberg, L., Rogers, S. J., & Hatton, D. (2010). Evidence-based practices in interventions for children and youth with autism spectrum disorders. *Preventing School Failure*, 54(4), 275-282.

Section Four: Literature Review

Cite all literature reviewed here and note month of most recent article reviewed for future reviewers:

The following study was added to the previous literature review:

Earbart, J., Zamora, I. (2015) Achievement together: the development of an intervention using relationship-based strategies to promote positive learning habits. *Infants and Young Children*, 28(1), 32-45.

Note that ASD clients may have been included here in the aggregate but whether the client whose data is discussed was ASD is not indicated.

Article Reference:	Earbart, J., Zamora, I. (2015) Achievement together: the development of an intervention using relationship-based strategies to promote positive learning habits. <i>Infants and Young Children</i> , 28(1), 32-45.
IV Description	The independent variable was not described in detail, varied over parents serving as subjects, and included such globally described activities as “reflection activities,” “problem-solving activities,” “understanding the child's perspective,” etc. including activities with the child such as “dealing with distractions” and “recognizing avoidance”, etc.--none of which were described.
DV	Standardized checklist (Child Behavior Checklist), parent report, and “structured and unstructured observations”--not described. A “Parent Stress Index” was given and “Parent-Child inventory” administered as was ne the “Maternal Behavior Rating Scale.”.
# in study	The number of children and parents who participated in this program was not identified, only one case was presented (more to describe the technique than develop internal or external validity).
Age ranges	The children in this program are generally in the 5-year old range.
Diagnoses	The children are at risk; autism was not specifically mentioned as a diagnostic category, The families involved were treated in a mental health center thus implying that there were difficulties at home and in school.
Design	Case-study, no controls within or between subjects, pre- and post data were taken but the context in which the RDI program was used (e.g., the types of programs the children were enrolled in beside the RDI) was not addressed.
Study Results	Large decreases in test scores suggest that the children improved greatly. (30-40 percentile changes were common across subtest results).
Reviewer Comments	<ul style="list-style-type: none"> *The design lack controls to make judgments regarding behavioral changes due to the RDI technique. *The data did not measure specific elements of the program or dependent variable properties to all for analysis of any co-variation. *The procedure's description lacked detail necessary for replication. *The one subject's data that was presented was selected by the authors—it was not randomly selected. *No comparison groups/individuals were evaluated so relative changes across treated and untreated children cannot be discerned.

Single-Case Design EBP Inclusion Criteria Checklist

Instructions: Read each item and check the appropriate box. If you check “NO” at any time, the article can be discarded as it will not be included as evidence for a practice.

Item	YES	NO	Rationale
Does the dependent variable align with the research question or purpose of the study?	X		
Was the dependent variable clearly defined such that another person could identify an occurrence or non-occurrence of the response?		X	*The behaviors and situations described in the narrative reports were not systematically recorded.
Does the measurement system align with the dependent variable and produce a quantifiable index?		X	The relationship between narrative and rating scale data was not clarified. The behaviors in each were not separated such that multiple measures of the same DV could (probably were) being made.
Did a secondary observer collect data on the dependent variable for at least 20% of sessions across conditions?		X	
Was mean interobserver agreement (IOA) 80% or greater OR kappa of .60 or greater?		X	
Is the independent variable described with enough information to allow for a clear understanding about the critical differences between the baseline and intervention conditions, or were references to other material used if description does not allow for a clear understanding?		X	
Was the baseline described in a manner that allows for a clear understanding of the differences between the baseline and intervention conditions?		X	This is because the treatment condition was not clearly identified.
Are the results displayed in graphical format showing repeated measures for a single case (e.g., behavior, participant, group) across time?		X	

Do the results demonstrate changes in the dependent variable when the independent variable is manipulated by the experimenter at three different points in time or across three phase repetitions? *Alternating treatment designs require at least 4 repetitions of the alternating sequence.			
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Group Design EBP Inclusion Criteria Checklist

Instructions: Read each item and check the appropriate box. If you check “NO” at any time, the article can be discarded as it will not be included as evidence for a practice.

Item	YES	NO	Rationale
Does the study have experimental and control/comparative groups?			
Were appropriate procedures used to increase the likelihood that relevant characteristic of participants in the sample were comparable across conditions?			
Was their evidence for adequate reliability for the key outcome measures? And/or when relevant, was inter-observer reliability assessed and reported to be at an acceptable level?			
Were outcomes for capturing the intervention’s effect measured at appropriate times (at least pre- and post-test)?			
Was the intervention described and specified clearly enough that critical aspects could be understood?			
Was the control/comparison condition(s) described?			
Were data analysis techniques appropriately linked to key research questions and hypotheses?			
Was attrition NOT a significant threat to internal validity?			

Does the research report statistically significant effects of the practice for individuals with ASD for at least one outcome variable?			
Were the measures of effect attributed to the intervention? (no obvious unaccounted confounding factors)			