Research Synthesis on Effective Intervention Procedures:

Executive Summary

Glen Dunlap, University of South Florida
Maureen Conroy, University of Florida
Lee Kern, Lehigh University
George DuPaul, Lehigh University
John VanBrakle, Lehigh Valley Hospital
Phillip Strain, University of Colorado
Mary Louise Hemmeter, University of Illinois at Urbana Champaign
Michaelene Ostrosky, University of Illinois at Urbana Champaign
Gail E. Joseph, University of Colorado at Denver

Center for Evidence-Based Practice:
Young Children with Challenging Behavior
RESEARCH SYNTHESIS ON EFFECTIVE INTERVENTION PROCEDURES

Center for Evidence-Based Practice: Young Children with Challenging Behavior

June, 2003

Preparation of this report was supported through a cooperative agreement from the U.S. Office of Special Education Programs, U.S. Department of Education (award # H324Z010001). Information or opinions contained in this document are those of the authors and do not represent agency endorsement or official agency positions.

This document may be reproduced in whole or part without restriction as long as the author, Center for Evidence-Based Practice: Young Children with Challenging Behavior, is credited for the work.

About the Center . . .

The Center for Evidence-Based Practice: Young Children with Challenging Behavior is funded by the U.S. Department of Education Office of Special Education Programs to raise the awareness and implementation of positive, evidence-based practices and to build an enhanced and more accessible data base to support those practices.
RESEARCH SYNTHESIS ON EFFECTIVE INTERVENTION PROCEDURES

Introduction

There is a wide range of intervention practices that have been shown empirically to reduce challenging behaviors (including social isolation) and to decrease the likelihood of their reoccurrence. While this review demonstrates that there are dozens of studies to support individual practices in this arena, the review is, however, limited as follows.

Center faculty elected to focus on practices that represented replicated bodies of scientific inquiry. In doing so, we acknowledge that there are unique, idiosyncratic practices not reviewed in this paper. However, since there are numerous categories of practices that have been extensively replicated, we believe that the Center should publicize and promote only those practices with extensive empirical support. Finally, this review focuses only on effective practices, excluding by omission practices that are touted by some to impact challenging behavior (e.g., sensory diet, equine therapy, psychodynamic play therapy) but which have no obvious empirical basis.

The general categories of intervention reviewed herein include:
- Chapter 1: Positive Behavior Support
- Chapter 2: Stimulant Medication Use
- Chapter 3: Applied Behavior Analysis Interventions to Promote Social Interaction
- Chapter 4: Classroom Preventive Practices
- Chapter 5: Social and Emotional Learning Programs
Positive behavior support (PBS) is a term that refers to a group of intervention strategies that are highly individualized, based on scientific principles and empirical data, grounded in person-centered values, and designed to prevent the occurrence of challenging behaviors. PBS interventions generally involve instruction to enhance the capacity of a child to manage his or her social environment and/or environmental modification to promote desirable behavior and remove or ameliorate triggers for challenging behaviors. The current synthesis was intended to summarize the empirical, peer-reviewed literature in PBS with young children (six years and younger) who display challenging behaviors.

Comprehensive reviews of the literature were conducted in four categories of PBS: (1) Functional (behavioral) assessment and assessment-based interventions; (2) Functional Communication Training; (3) Self-management, and; (4) Choice making. The articles in each category were aggregated and evaluated with respect to nine confidence criteria pertaining to the status of the existing empirical evidence: treatment fidelity, treatment generalization, treatment maintenance, social validity, acceptability of interventions, replication across investigators, replication across clinical populations, evidence for ethnic/racial diversity, and replication across settings. Categories with evidence on at least 7 of the criteria were judged to have a high confidence rating, 4-6 criteria yielded a medium confidence rating, and 0-3 provided a low confidence rating.

The category of functional (behavior) assessment and assessment-based interventions was comprised of the largest amount of articles (25) and data, with separate studies being reported by numerous investigators with many clinical populations (e.g., autism, developmentally delayed, speech/language delayed) in many settings (e.g., child care, clinic, home). The effects for virtually all of the participants were clear and socially meaningful. The great majority of the participants were at least 3 years of age, with only a few being less than 3 years of age. The category received a high confidence rating.

Functional communication training also relies on functional assessment and it is an assessment-based intervention. However it was distinguished from the previous category because it is a distinctly-recognized procedure with a clear data base. Still, relatively few articles (5) were identified as including participants who were young children. The existing studies demonstrated strong effects with several population groups (autism, learning disabled, developmentally delayed, ADHD) across a variety of relevant early childhood settings. Together, the studies warranted a medium confidence rating.

Self-management for young children involves the child being taught to observe his or her own behavior and make some indication (verbal reporting, checking a picture chart, etc.) of what was observed. This level of self-management is also referred to as self-monitoring. More complex forms of self-management (e.g., self-evaluation) may be used with older children and adults. Nine studies were identified that included some form of self-monitoring with young children. All of the participants were at least four years of age, with the exception of two 3-year-olds. The children were described as having autism, developmental delay or being at-risk for behavioral disorders. The settings included
classrooms, clinics and hospitals. The results were generally favorable, with some limited evidence of maintenance and generalization. The overall evaluation was a medium confidence rating.

*Choice making* included five studies, however four of the studies only included one participant who was 6 years of age or younger. Therefore, the evidence in this category was meager. The data that do exist indicate clear effects, though the effects are situation specific. The demonstrations were with children with autism and emotional-behavioral disorders in classrooms, clinics and homes. Overall, due to the limited data, choice making was given a low confidence rating.

Overall, PBS as an intervention approach can be seen as a powerful strategy for preventing and resolving challenging behaviors of young children. If the four categories were lumped together, the confidence rating would be high. When distinguished by category, there are areas where the data are too limited to state with assurance that a particular procedure has ample empirical support, at least at this time. Also, PBS approaches have been demonstrated almost exclusively with pre-schoolers and there are little data with infants and toddlers. There is a trend in the direction of increasing studies in the PBS area, so it may be expected that future evaluations of the evidence would enhance the ratings of the PBS subcategories.
Executive Summary
Stimulant Medication Use with Preschoolers

Lee Kern, George DuPaul, and John VanBrakle
Lehigh University and Lehigh Valley Hospital

Available epidemiological data indicate that approximately 2-5.7% of preschool-aged children have attention deficit/hyperactivity disorder (AD/HD). The most common treatments for AD/HD are stimulant medication and behavioral interventions applied across home and school settings. Almost all of the research studies investigating the effectiveness of stimulant medications have been conducted with school-aged children. In spite of limited empirical documentation regarding effectiveness, safety, and dosage with this age group, physicians routinely prescribe methylphenidate and other stimulant medications to young children. The current paper seeks to examine the current status of the literature regarding the effectiveness of stimulant medications for preschool aged children.

Computer, ancestral, and hand searches identified 16 studies published between 1975 and 2001 examining stimulant medication use with preschoolers. The studies included a total of 247 children with an additional 20 participants who served as controls in 2 of the 16 studies. The participants ranged in age from 2.5 to 6 years. The level of supporting evidence for medication use was evaluated along 10 dimensions. These were: a) evidence for treatment fidelity; b) evidence for treatment generalization; c) evidence for maintenance; d) evidence for social validity; e) evidence for acceptability of intervention; f) evidence for replication across investigative teams; g) evidence for replication across gender and ethnically/racially diverse groups; h) evidence for replication across settings; i) evidence for naïve evaluation; and j) evidence for evaluation of side effects.

To summarize the overall level of evidence rating, a numerical score was assigned to each study depending on total number of categories of supporting evidence. Studies that were supported by evidence in 7-10 of the categories were considered to have high confidence, evidence in 4-6 categories were rated as having medium confidence, and evidence in less than 4 categories were rated as low confidence.

Findings indicated that none of the studies reviewed was supported with high confidence. Five of the 16 studies were supported with medium confidence while 11 fell within the low confidence criteria.

The results of these 16 studies indicate that stimulant medication leads to significant reductions in off-task and noncompliant behavior as well as enhancement of sustained attention and social skills in preschoolers with AD/HD and related behavior disorders. However, a closer examination of the level of evidence suggests several limitations. First, medication effects have been examined in few settings. Direct observations were limited to clinical or hospital settings, with the exception of two studies that represented specialized types of preschool settings (therapeutic preschool, university affiliated program). No direct observations have been conducted in home settings or typical preschool settings. Second, there is a lack of data regarding effects of medication on behaviors other than sustained attention, off-task, and compliance with authority figure commands. Very little, if any, information is available regarding stimulant effects on critical areas of functioning such as...
social skills, cognitive abilities, and achievement on pre-academic skills. Third, most studies were comprised of Caucasian, middle-class, male samples. Fourth, few studies included treatment fidelity data. Fifth, medication effects were evaluated over short time periods (typically less than 15 days). Sixth, there are compelling data indicating young children are more prone to side effects than older children. Finally, there is a lack of data regarding social validity and consumer acceptability of this treatment.

In summary, the resulting strength of evidence is low across these 16 studies. Thirteen or more of the studies included evidence on treatment generalization across behaviors, replication across investigators, and data on side effects. Four or fewer of the studies measured treatment fidelity, treatment maintenance, social validity, acceptability of interventions, replication across clinical populations, evidence for ethnic/racial diversity, or replication across settings. The literature regarding stimulant treatment of young children is markedly less developed in terms of both quantity of studies and quality of methodological rigor in comparison to the plethora of research on this treatment with older children. Additional research of stimulant medication with preschool age children is essential, particularly given its escalating use in clinical practice.
Chapter 3

Executive Summary
Applied Behavior Analysis (ABA) Interventions to Increase Prosocial Behavior

Philip Strain, Ph.D.
University of Colorado

The last 25 years have witnessed a major increase in the quantity, range, and quality of ABA intervention procedures for improving the peer interaction skills of young children. While there are literally dozens of instructional procedures and materials that have been designed to improve peer social interactions, the data base accompanying most procedures is scant at best.

In deciding on the specific social interaction procedures to highlight in this review, studies were selected according to the following criteria:

- Was the procedure/material accompanied by multiple empirical demonstrations of effectiveness?
- Was the procedure/material replicated successfully across either investigators, range of disabilities, and intervention settings?
- Was the effectiveness (outcome) data accompanied by data on the implementation of the intervention?

These criteria reduced the field to five global interventions:

1. Procedures in which teachers prompted and reinforced an individual child for positive overtures toward peers,
2. Procedures in which typical and/or mildly disabled children were taught specific skills by which to engage their peers in positive interaction,
3. Procedures in which reinforcement contingencies were applied to groups of children, contingent upon a certain level of social interaction,
4. Correspondence training in which children are taught a “say-do” sequence, and
5. Affection training procedures in which group times are designed to promote (usually via adult modeling and reinforcement) an affectionate repertoire.

Literature Review Procedures

We completed our review of the literature in two steps. First, we conducted hand searches of journals (i.e., Journal of Applied Behavior Analysis, Behavior Disorders, Topics in Early Childhood Special Education, Journal of Early Intervention) and reviewed familiar articles that met the criteria for inclusion. Next, we conducted computer searches of the ERIC, PsychINFO, and ProQuest databases using different combinations of following terms: peer-mediated intervention, prompting and reinforcement, correspondence training, affection training, group contingencies, prosocial behavior, and social withdrawn/isolation. To be included in the review, the article must have met the following criteria: 1) a research study conducted in one of the key topic areas listed above; and 2) included at least one participant who was six years or under and demonstrated challenging behavior. The level of evidence supporting each tactic was evaluated along nine dimensions: (1) treatment fidelity, (2) treatment generalization, (3) treatment maintenance, (4) social validity of outcomes, (5) acceptability of interventions, (6) replication across investigators, (7) replication across
clinical groups, (8) evidence across ethnic/racially diverse groups, (9) evidence for replication across settings.

**Teacher prompting and praise**

While prompting and teacher praise may well be a staple in the behavior change arsenal, the procedure has its limits. Specifically, intervention acceptability is low or unknown, the social validity of outcomes specifically associated with prompting and praise is unknown, and while there are a few exceptions, the maintenance and generalization of effects are generally poor. Overall, this tactic would merit a medium confidence rating (five criteria met).

**Peer Mediation Intervention**

Peer-mediated strategies meet seven of the nine criteria, demonstrating an absence of intervention acceptability data and evidence across ethnic/racially diverse groups. Following the rubric previously established, peer-mediated strategies would merit a high confidence rating. This rating should be tempered somewhat as the great majority of children with special needs in these studies is limited to those diagnosed with autism.

**Use of Group-Oriented Contingencies**

Group oriented contingencies meet six of nine rating criteria, placing them at the high end of the medium confidence range. SES questions, social validity of outcomes and intervention acceptability are problem areas.

**Correspondence Training**

Correspondence training meets four of nine criteria (medium confidence), with uncertainty surrounding SES, generalization, maintenance, social acceptability of intervention and social validity of outcomes.

**Affection Training Procedures**

Affection training procedures fall within the medium confidence range, with questions remaining regarding participant ethnic diversity, maintenance of effects, social acceptability and social validity of outcomes.

**Overview**

Applied Behavior Analysis interventions to increase prosocial behavior represents a rich and diverse literature. Of the five tactics highlighted, all have been used across a breadth of clinical groups and settings with success. On a comparative basis, very little research has been done with ethnically diverse participants and children below age three.

In terms of overall strength of evidence, the tactics reviewed form a very tight cluster, as follows:

- Adult Prompting and Reinforcement (medium confidence, 5 criteria met)
- Peer Mediated Intervention (high confidence, 7 criteria met)
- Group-Oriented Contingencies (medium confidence, 6 criteria met)
- Correspondence Training (medium confidence, 4 criteria met)
- Affection Training (medium confidence, 5 criteria met)

Common weaknesses involve population diversity, social acceptability of interventions, social validity of outcomes, and questions regarding maintenance and generalization of effects.
Addressing challenging behavior is a complex process that includes not only intervention efforts to reduce challenging behavior but also systematic strategies for preventing the occurrence of challenging behavior. Preventive strategies are based on the following assumptions: a) challenging behavior is less likely to occur when children are actively engaged with materials, activities, peers and/or adults; b) challenging behavior is less likely to occur when children know what to do, when to do it, how to do it, and they understand the expectations for their behavior; and c) challenging behavior is less likely to occur when children have effective and appropriate communication strategies.

In order to identify the literature that would be used for this review, we set the following criteria for inclusion of studies: a) they had to include a child six years of age or younger, b) they had to address one of the preventive strategies, c) they had to include some type of experimental design, and d) they had to be published in a peer reviewed journal. We searched bibliographic databases in addition to hand searching relevant journals. In addition, we attempted to locate additional research through correspondence with leading researchers in this area. The articles resulting from this review were evaluated with respect to nine confidence criteria pertaining to the status of the existing empirical evidence: treatment fidelity, treatment generalization, treatment maintenance, social validity, acceptability of interventions, replication across investigators, replication across clinical populations, evidence for ethnic/racial diversity, and replication across settings. Categories with evidence on at least 7 of the criteria were judged to have a high confidence rating, 4-6 criteria yielded a medium confidence rating, and 0-3 provided a low confidence rating.

The review identified four classroom preventive strategies that are designed to help children understand the rules and routines of the classroom as well as the expectations of the adults in their environments. These strategies relate to: a) classroom arrangement, b) transition planning, c) schedules and routines, and d) classroom rules and expectations.

**Classroom Arrangement** (met 5 criteria, medium confidence rating). Three variables related to environmental arrangement were addressed in the research: a) the relationship between amount of space and children’s appropriate social behaviors, b) the relationship between different types of toys and children’s social behavior, and c) the structure of the classroom on children’s social behavior. Children demonstrated higher levels of social interactions in a smaller space as compared to a larger space, when engaged with social toys versus isolate toys, when involved in socially designed learning centers versus more isolate areas, and in integrated rather than segregated settings. In addition, classroom reorganization resulted in higher levels of engagement, play behaviors, compliance and vocalizations.
Schedules and Routines (met 3 criteria, low confidence rating). Schedules and consistent routines are fundamental to supporting children’s social emotional development and preventing challenging behaviors. Research shows that schedules and routines can positively affect children’s social behavior, play, and engagement. Specifically, children demonstrated higher levels of play and engagement during longer play periods, when staff were organized using zone staffing patterns, and when there was flexibility in terms of when children changed activities.

Transitions (met 5 criteria, medium confidence rating). Challenging behaviors frequently occur during transition times in classrooms. Investigations of activity sequence and choices on children’s independence, engagement and/or disruptive behaviors during transitions found higher levels of engagement when children were provided choices about when they transitioned. In addition, children demonstrated fewer disruptive behaviors and transitioned more quickly when the transition was preceded by a more passive activity such as story time. Other researchers investigated specific intervention approaches for supporting children’s transitions. These packages included self-management and self-assessment as well as photographic cues prior to and during transitions. The interventions resulted in decreases in time spent in transition, higher levels of engagement, and less disruptive behavior.

Classroom rules (met 0 criteria, low confidence rating). The use of classroom rules is assumed to help children understand the expectations for the classroom and to promote children’s appropriate behaviors related to those rules (e.g., being nice to our friends, using our quiet voices). While there is an extensive published literature on how to develop and implement class rules, we were unable to locate any data based research on the use of classroom rules in early childhood settings.

Across the four areas, there was considerable evidence of replication across investigators, replication across clinical populations, and replication across settings. However, the research on interventions designed to promote children’s social behavior while preventing the occurrence of challenging behavior is limited by a number of issues. First, the age range of the children is limited. There is almost no research on preventive practices for children under the age of 4. Second, across the studies, weaknesses include lack of evidence with respect to treatment fidelity, treatment generalization, treatment maintenance, social validity, acceptability of interventions, and evidence for ethnic/racial diversity. Future research needs to attend to these dimensions of interventions in order to increase the confidence in the overall findings.
Overall, national survey data suggest that the prevalence of problem behaviors in young children is about 10%, and may be as high as 25% for low-income children. Observational data on preschoolers suggest that between 4-6% pose on-going problems to classroom teachers. In fact, preschool teachers report that child disruptive behavior problems are the most important challenges they face. At the same time, in accordance with national goals, teachers are under increasing pressure to ensure that children are “entering school ready to learn” with emergent literacy and numeracy skills. These findings have implications for the kinds of support teachers need as well as for prevention intervention strategies for parents and teachers targeted at strengthening social and emotional competence in young children.

Social emotional curricular programs are comprehensive, manualized curricula that focus on fostering protective factors and reducing risk factors associated with academic and social problems. Social emotional curricular programs focus on friendship skills, emotional recognition, problem solving skills training, violence and substance abuse prevention, and social skills and anger coping skills training.

**Literature Review Procedures**

The literature review process was conducted in two steps. First, a literature search was conducted to identify the empirical studies conducted on the efficacy of social emotional curricula for young children. Two key delimiting criteria in the search were: a) participant age (under 6 years) and a comprehensive scope and sequence of intervention that was evidenced in a manualized form. Literature searches using several relevant keywords (emotional competence, social skills curriculum, problem solving skills, peer relations, disruptive behavior, aggression, conduct disorder treatment, early intervention, preschool curricula, young children) were conducted using electronic databases. Additional searches were made based on references found in review articles and government reports. Eight curricula and empirical studies associated with each were identified by this method.

Second, social emotional curricula were identified by searching publisher’s websites, national organization websites, the World Wide Web, catalogs, etc. Additionally, websites for early childhood educators were searched for suggested resources on social emotional curricular programs for young children. With each document attained, the reference list was reviewed against the list of identified programs to further guard against omissions and oversights. Two more programs were added through this step. These two curricula (PATHS and Second Step) do not presently have empirical evidence for children ages 3-6, however studies are in the process of being completed so we have included them in this review as “promising programs.” The empirical studies supporting the first eight curricula were identified by searching the above-listed data bases and by contacting curriculum developers to inquire about ongoing research.
Once the 10 curricula were identified and sources for additional curricula exhausted, each curriculum developer was contacted to inquire about any ongoing studies or pre-published data that could affect our subsequent descriptions and analyses.

The articles resulting from this review were evaluated with respect to nine confidence criteria pertaining to the status of the existing empirical evidence: treatment fidelity, treatment generalization, treatment maintenance, social validity, acceptability of interventions, replication across investigators, replication across clinical populations, evidence for ethnic/racial diversity, and replication across settings. Categories with evidence on at least 7 of the criteria were judged to have a high confidence rating, 4-6 criteria yielded a medium confidence rating, and 0-3 provided a low confidence rating.

Results

Table 1 below summarizes the key characteristics (the name of the program, the first author, focal participants, intervention treatment and duration, outcomes) of the ten curricula.

Table 2 below provides an overview of how each of the eight social and emotional curricula was rated on the nine indicators of adoption potential (Second Step and PATHS are not included in this table, as there are currently no published data on the preschool population). Programs ranged from a low of meeting two indicators to a high of meeting seven indicators. Four of the eight curricula met three or fewer criteria.

Conclusion

In the evaluation of these eight programs, this review has noted some exceptional studies. Studies utilizing large, diverse, well-described samples; random assignment, contact control groups; and using multiple measures (including direct observations of behavioral change and well researched assessments to measure the effectiveness of the intervention), and measures of implementation fidelity and social validity of the treatment and outcomes engender confidence in their results. Furthermore, several programs moved beyond the typical, 10-week, single modality intervention. These were long-term, multi-modal, multi-agent, they occurred in multiple settings, were evaluated by multiple measures and were well liked by their consumers.

Perhaps this review can set the stage for more empirically-driven decisions. It is also important to note that ongoing studies likely will enhance the confidence ratings for a number of these curricula in the near term.
<table>
<thead>
<tr>
<th>Program Name</th>
<th>First Author</th>
<th>Focal Participants</th>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social-emotional intervention for at-risk 4 year olds</td>
<td>Denham, S. (1996)</td>
<td>Preschool Children</td>
<td>Relationship building through “floor time;” didactic lessons in understanding and regulating emotions; 32 week intervention/4 days a week</td>
</tr>
<tr>
<td>Self-Determination Curriculum</td>
<td>Serna, L. (1999)</td>
<td>Preschool children, ages 3-5</td>
<td>12 week intervention implementing two 3-hour sessions each week in the classroom. Intervention is comprised of three adaptive skill areas (a) direct following, (b) sharing, (c) problem solving. Skills are demonstrated to children through the use of stories and opportunities to act out the skills.</td>
</tr>
<tr>
<td>DARE to be You</td>
<td>Miller-Heyl, J. (1998)</td>
<td>Preschool children, ages 2-5</td>
<td>24 hours of parent training with follow up support; children’s curriculum emphasizes decision making, problem solving skills, responsibility for one’s own behavior and esteem for one’s self</td>
</tr>
<tr>
<td>ICPS</td>
<td>Shure, M. (1972)</td>
<td>Preschool children, ages 4-5</td>
<td>12 week intervention using a variety of sequenced games, discussion and group interaction techniques; dialoguing is used to provide opportunities for children to exercise their problem solving skills.</td>
</tr>
<tr>
<td>Al’s Pals: Kids Making Healthy Choices</td>
<td>Dubas, J. (1998)</td>
<td>Preschool children, ages 4 and 5</td>
<td>Two major components: 1) teacher training &amp; 2) a resiliency-based preschool curriculum implemented by the trained teachers. 43 lessons, 20 minutes each.</td>
</tr>
<tr>
<td>Incredible Years Series: Dinosaur School</td>
<td>Webster-Stratton, C. (1997)</td>
<td>Children ages 4-7 with child misconduct problems</td>
<td>22 two-hour sessions with 5-6 children in clinic setting. Children are taught social and problem solving skills through video modeling, role plays, activities and puppets</td>
</tr>
<tr>
<td>First Steps</td>
<td>Walker (1998)</td>
<td>Kindergarten children</td>
<td>Program is combined home and school intervention approach to preventing antisocial behavior. Intervention requires 2-3 months and is applied to only one child at a time in a kindergarten classroom.</td>
</tr>
<tr>
<td>Second Step</td>
<td>Committee for Children (1989)</td>
<td>Second and third grade students</td>
<td>Two times a week, 50 minute lessons. Uses 11”x17” photo lesson cards. Teacher shows cards and follows the lesson outline on the reverse of the card. Lesson techniques include discussion, teacher modeling of the skills and role plays.</td>
</tr>
<tr>
<td>Promoting Alternative Thinking Strategies: PATHS</td>
<td>Kusche (1994)</td>
<td>First-Sixth Grade Students (deaf/hearing impaired, regular education, and special education-classified children)</td>
<td>Taught three times per week for a minimum of 20-30 minutes per day, systematic, developmentally-based lessons, materials, and instructions for teaching emotional literacy, self-control, social competence, positive peer relations, and interpersonal problem-solving skills.</td>
</tr>
<tr>
<td>Program Name</td>
<td>First Author</td>
<td>Treatment Fidelity</td>
<td>Treatment Maintenance</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>--------------</td>
<td>--------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Social-emotional intervention for at-risk 4 year olds</td>
<td>Denham</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Self-Determination Curriculum</td>
<td>Serna</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PALS: Developing Social Skills Through Language</td>
<td>Vaughn</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>DARE to be You</td>
<td>Miller-Heyl</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>ICPS</td>
<td>Shure</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Al’s Pals: Kids Making Healthy Choices</td>
<td>Geller</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>The Incredible Years: Dinosaur School</td>
<td>Webster-Stratton</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>First Steps</td>
<td>Walker</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>