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Promoting School Success: Developing Social Skills and Early Literacy in Head Start Classrooms

Barbara Gunn, Ed Feil, John Seeley, Herb Severson, and Hill M. Walker
Oregon Research Institute

Abstract

This article reports the results of a pilot intervention to improve the social skills and literacy preparation of behaviorally at-risk Head Start children. Teachers in eight Head Start classrooms in two Oregon communities participated during the 2002–03 school year. Children in eight classrooms were screened and identified for participation using the Early Screening Project (ESP). Participants (n=16) were randomly assigned to receive social skills training, First Step to Success, social skills plus literacy training, Early Literacy Essentials, or to a comparison condition. Participants in the two intervention groups were combined and compared with the comparison group. Results indicated statistically significant gains in social skills outcomes for the intervention group. However, parent ratings of social skills showed superior effects for the comparison group as well. Receptive vocabulary, as measured by the Peabody Picture Vocabulary Test (PPVT), yielded a large effect size (Cohen's $d=.95$) for the intervention group. Findings suggest that a combined intervention addressing literacy and social skills, shows promise and is worthy of further development and evaluation.

INTRODUCTION

Young children who experience problems with social-behavioral adjustment often have co-existing deficits in early language and literacy skills. These deficits compound the challenges they face and jeopardize their prospects for school success and positive social relationships (Bos, Coleman, & Vaughn, 2002; Hinshaw, 1992; Kaiser, Car, Hancock, & Foster, 2002; McGee, Prior, Williams, Smart, & Sanson, 2002; Tomblin, Zhang, Buckwalter, & Catts, 2000). Well documented evidence on the overlap of language and behavior problems has been substantiated with low-income preschool children (e.g., Harden et al., 2000), in broader preschool populations (Tomblin et al., 2000), and with early elementary students (Kellam, Mayer, Rebok, & Hawkins, 1998; McGee et al., 2002; Zins, Weissberg, Wang, & Walberg, 2004). Although the direction of the relationship between language and behavior problems is still unclear (Patterson, DeBaryshe, & Ramsey, 1989), there is some evidence that it is reciprocal, with reading failure contributing to the development of challenging forms of behavior and vice versa (Lane, Gresham, & O'Shaughnessy, 2002; O'Shaughnessy, Lane, Gresham, & Beebe-Frankenberger, 2003).

The added presence of language and literacy deficits, although not initially as troubling as problem behavior, has serious long-term implications. Reading is essential for success in school, and the impact of reading failure on academic achievement has been well established (Cunningham & Stanovich, 1998; Juel, 1988; Slavin et al., 1996). So too is the relation between learning to read in first grade and the development of reading ability throughout elementary school (Francis, Shaywitz, Steubing, Shaywitz, & Fletcher, 1996; Juel, 1988). One need not look far to see the long-term consequences of reading failure. School age children who fall behind in reading make up the majority of the referrals for special education services (Summary Report of the 1994 Washington Summit on Learning Disabilities). Approximately 10 to 15% of those who experience the most serious reading difficulty eventually drop out of school, and

only 2% earn a college degree. Not surprisingly, surveys of prison inmates and youth with a history of substance abuse reveal that at least half report a history of reading problems.

First-grade reading achievement depends, to a great extent, on the language and literacy preparation children have when they begin school. By the time they enter kindergarten, some children have acquired the skills that lay the foundation for learning to read. Yet, many others lack the requisite skills that will help them understand the academic language of the classroom and benefit from formal reading instruction. Increasingly, the responsibility for developing these abilities and closing the gap between more and less advantaged children falls to the preschool teacher.

Based upon the frequent co-occurrence of early deficits and behavior problems observed among preschool children (e.g., Hinshaw, 1992; Kaiser et al., 2002), and the strong association of these problems with school failure, it is important that early childhood research focuses on developing school readiness in both literacy and social domains (FAN, 2000; Rimm-Kaufman, Pianta, & Cox 2000).

The authors are beginning a program of research to investigate an early intervention program for developing social and early literacy skills. This brief describes results from a pilot study that evaluated a combined social skills and pre-literacy intervention program for at-risk Head Start children.

METHOD

Study Design

Teachers in eight Head Start classrooms were recruited to participate in this study and were then randomly assigned to the intervention or to a comparison condition. The intervention was implemented over a 3-month period during the winter quarter of the 2002–03 school year.

Teachers in the intervention and comparison classrooms were asked to rate their students using the Early Screening Project (ESP) (Walker, Sevenson & Feil, 1995) to identify children with high levels of externalizing or internalizing behavior problems. The three children in each class who were most highly ranked were also rated by their teachers using the ESP Stage 2 measures of adaptive and maladaptive dimensions of classroom behavior. The parents of the children with the highest teacher rankings on the two scales of the ESP were invited to participate in the study along with their children. If they declined, parents of the second highest-ranked children were invited to participate and so on until permission to participate was obtained. Two students per class participated for a total of 16 students.

Children in the intervention classrooms were eligible to receive (a) First Step to Success (Walker et al., 1997; 1998), a social skills intervention program and (b) Early Literacy Essentials, a literacy program that develops phonemic awareness, oral language skills, and alphabetic knowledge.

Participants

Sixteen Head Start children and their families participated in the study. Thirteen (81%) of the participants were male and three (19%) were female. All participants were low-income and of European-American origin. English was the primary language spoken in the home. At the beginning of the study, the children ranged in age from 42 months (three years, six months) to 60 months (five years), with an average age of 54 months (four years, six months). Approximately one-third of the children's caregivers completed high school, one-third had GEDs, and the remaining third had some college or were college graduates. Half of the

caregivers worked full-time; 13% worked part-time or were looking for work; and 38% reported not working by choice. Household income ranged from approximately \$5,000 to \$30,000 annually. The caregivers' average age was 27 years (SD=3.4). Seventy-five percent of the children lived with a biological parent, 12.5% with a step parent, and 12.5% with a grandparent.

Social Skills Intervention

First Step to Success (Walker et al., 1997;1998) is a collaborative home and school intervention program for young children who are at risk for school failure due to challenging behavior. It is designed to prevent them at the point of school entry from a path leading to later destructive outcomes. First Step has two modules: (1) a classroom intervention that targets at-risk children and focuses on teaching and strengthening prosocial skills and competencies, and (2) a parent-training component in which parents or caregivers are exposed to six lessons that allow them to teach their child key skills for enhancing school readiness and school adjustment (e.g., accepting limits, doing assigned work, sharing school).

The First Step classroom intervention was initially conducted by a trained project consultant who met with the target child and taught him or her appropriate social-behavioral skills specific to the classroom (teacher-related) and playground (peer-related). Following this instruction, the consultant implemented Phase 1 of First Step for two brief periods (20–30 minutes) daily for five-days. During this phase, the consultant rewarded and praised the child's use of the appropriate skills and demonstrated to the teacher how to implement the program. On Day 6, the classroom teacher took over program implementation from the consultant, giving the target child frequent, direct feedback on appropriate social skills and behavior. On Day 10, First Step was expanded to all school settings in which the child was experiencing problems. Home and school activity-based incentives were also provided to support the child's attempts at behavior change and to motivate peers to participate in the intervention as special helpers and supportive social agents. The teacher implementation phase lasted approximately seven weeks, with the consultant providing ongoing supervision and support.

The parent education component, HomeBase, was implemented during a series of short home visits (40–60 minutes) by the consultant over a 6-week period. The HomeBase program consists of six lessons for parents that are designed to build children's skills in areas that affect school adjustment and performance: (1) Communication and Sharing at School, (2) Cooperation, (3) Limit-Setting, (4) Problem-Solving, (5) Friendship-Making, and (6) Developing Confidence. The First Step program consultant visited the child's home and conducted the lessons in that setting. The child practiced a skill such as Communication and Sharing at School, the parents listened and provided encouragement, and the consultant provided supervision and feedback to parents and child. The consultant left materials with the parents to facilitate their review and practice of each skill. The parents were encouraged to practice the skill-building activities for 10–15 minutes as often as possible during the week. The consultant made a weekly follow-up phone call to parents to answer their questions and to give them additional suggestions and support.

Literacy Intervention

Along with the behavioral and social skills that promote school success, young children also need a solid foundation in the early literacy skills to become successful readers. To mitigate differences in early literacy preparation, and to close the gap between more and less advantaged children, converging evidence from early childhood research indicates that preschool literacy programs need to assist children between the ages of 3 and 5 in developing: (a) oral language and vocabulary, (b) knowledge of print, and (c) phonemic awareness (Biemiller, 1999;Lonigan,

Burgess, & Anthony, 2000; Torgesen, 2000). Seven of the eight children who were eligible received the 10-week literacy intervention, which was designed to help them develop these components of early literacy.

Participating children received Early Literacy Essentials three times weekly for 15–20 minutes a day. Over a 10-week period, six of the seven children participated in an average of 29 sessions. One child moved prior to the end of the study and only participated in 11 sessions. A trained research assistant worked with the children in a corner of the classroom at a time that had been pre-arranged with the teacher. The relatively short duration of these sessions (15–20 minutes) was designed to hold the interest of the children and maintain their motivation and enjoyment for the activities.

Oral language and vocabulary—To address vocabulary and oral language development, the consultant read a story to the children using the Dialogic Reading approach (Arnold, Lonigan, Whitehurst, & Epstein, 1994). Dialogic reading differs from the typical adult-child book reading activity because it is more interactive. The child takes on some of the role of storyteller and the adult poses open-ended questions to elicit richer, more extended verbal interactions. This interactive approach has been shown to increase student's performance on measures of vocabulary (Whitehurst et al., 1994). After story reading, the consultant followed up with extended discussion of the vocabulary and concepts in the story and helped children make connections with their background knowledge.

Print knowledge—Children who understand how print works, and who know letter names and some sounds, will be more ready to learn to read. Knowledge of the forms and functions of print are easily acquired through shared storybook reading (Gunn, Simmons, & Kame'enui, 1998). Likewise, knowledge of letters and their sounds can be learned within informal contexts through access to materials such as magnetic letters; word and letter games; and a supply of paper, pencils, and crayons. The consultant followed the read-aloud activity with a range of preplanned alphabet activities that included alphabet poems, play with letters on magnet boards, alphabet books, and letter cards.

Phonemic awareness—Phonemic awareness skills enable beginning readers to link the sounds of language to print, and treatment studies indicate that phonemic awareness can be taught to pre-school children through age-appropriate activities (McCardle, Scarborough, & Catts, 2001). As instructional time and the children's attention span allowed, the research assistant also focused on developing phonemic awareness skills through interactive activities that helped children develop an awareness of the sounds in spoken words. Activities included stretching and shrinking names, clapping out sounds in words, and playing rhyming games.

Measures

The Early Screening Project (ESP) (Walker et al., 1995) is a well-developed and extensively researched universal screening system for the early detection of externalizing or internalizing behavior problems in children 3 to 5 years old. The ESP has been widely adopted in the fields of early intervention, child mental health, and behavior disorders and is considered to be user friendly. The ESP national normative sample consists of 2,853 children enrolled in typical and specialized preschool programs and was developed from 1991 to 1994. The ESP has been recommended for use by leading Head Start professionals (See *Lessons From the Field: Head Start Strategies to Meet Changing Needs*, Yoshikawa & Knitzer, 1997). The ESP served as a screening measure only in this study and was administered in the fall of the 2002–03 school year by participating Head Start teachers. This procedure resulted in the nomination and rank

ordering of children at risk for the development of externalizing and internalizing disorders for inclusion in the study.

The Social Skills Rating System (SSRS) (Gresham & Elliot, 1990) served as an outcome measure in this study. The SSRS provides an excellent measure of peer-to-peer and teacher-related social skills as well as the teacher's perceived importance of each rated social skill as they relate to successful adjustment in school. Substantial evidence of test-retest reliability and validity of parents' and teachers' SSRS social skills ratings has been reported (Gresham & Elliot, 1990). SSRS Externalizing and the Child Behavior Checklist (CBCL) Externalizing scores are highly correlated with each other ($r=.75$). Participating parents and teachers completed the SSRS social skills and SSRS problem behavior scales.

The Peabody Picture Vocabulary Test (PPVT-R; Dunn & Dunn, 1997) was used as the outcome measure for growth in academic-language skills. The PPVT is an individually-administered, norm-referenced test of listening comprehension. It is designed to measure receptive vocabulary and serve as a screening test of verbal ability. The test provides an estimate of verbal ability and the extent of English language vocabulary acquisition. It is useful for preschool children because it does not require the child to read or write. Children were given Form III-A of the PPVT at baseline, and Form III-B at the end of the intervention.

RESULTS

Two children in each of the four intervention classrooms ($n=8$) were eligible to receive the social skills component. However, due to competing requirements from the Head Start administration, only one child per classroom received the social skills intervention for a total of four. Seven of the eight children in the intervention classrooms received the literacy intervention. Because of the small sample in the pilot and the even smaller number of children receiving the social skills intervention, we grouped the 15 children who completed the study into two groups for analysis: literacy only and literacy plus social skills ($n=7$), and comparison ($n=8$).

Repeated measures ANOVAs were used to test for pre-post change differences between the experimental conditions. Two planned contrasts were specified to test for the effects of the two intervention components. With respect to the literacy component, the literacy only and literacy plus behavior conditions were combined and contrasted with the usual care comparison condition on the language measure. For the social skills component, the literacy plus social skills condition was contrasted with the usual care comparison condition on the behavioral outcome measures (SSRS); the literacy only component was excluded from this contrast due to potential non-specific or contamination effects. Pre-post means and standard deviations (SD in parenthesis), on the PPVT were 63.00 (24.25); 68.20 (12.44) for comparison and 43.00 (9.17); 58.33 (2.08) for intervention. The effect size was 0.95. Pre- post means and SD on the SSRS parent behavior were 7.67 (2.58); 7.33 (2.34) for comparison and 7.75(4.99); 6.50 (2.89) for intervention. The effect size was 0.39. Pre- post means and SD on the SSRS parent social were 39.67 (11.91); 46.67 (13.41) for comparison and 43.25 (6.90); 42.50 (5.80) for intervention. The effect size was 1.75. Pre- post means and SD on the SSRS teacher behavior were 8.88 (2.80); 8.13 (4.67) for comparison and 11.75 (1.50); 9.75 (2.06) for intervention. The effect size was 0.54. Pre- post means and SD on the SSRS teacher social were 26.88 (8.39); 30.63 (7.39) for comparison and 22.75 (5.38); 34.75 (9.98) for intervention. The effect size was 1.50.

For receptive language and vocabulary growth, as measured by the PPVT, a large effect size (Cohen's $d=.95$) was obtained with greater change occurring in the combined literacy

conditions. However, due to the small cells sizes and corresponding limited statistical power, the Group X Time F test did not attain statistical significance ($p=.288$).

With regard to change in the four social-behavioral measures of the SSRS, statistically significant and large effects were obtained in the predicted direction for the SSRS teacher-rated social skills measure ($d=1.50$; Group X Time $p=.039$). Change in the parent- and teacher-rated SSRS behavioral measures were small-to-moderate in magnitude but in the predicted direction ($ds=.39$ and $.54$, respectively); however, they did not attain statistical significance. The SSRS parent-rated social skills measure results were not in the predicted direction. Further, the gains for the comparison group children were significantly greater than for the intervention group children.

DISCUSSION

The very small cell sizes and the corresponding limited statistical power associated with these results lead us to regard them as tentative. Given the small overall sample size, the generalizability of these results is extremely limited, in spite of the relatively robust effects achieved for the literacy plus social condition in comparison to the usual care/comparison condition.

It should be noted that positive effects were obtained on two of the measures that were targets of the intervention, social skills and PPVT receptive language. The addition of a measure of expressive language would have documented changes in oral language, which was another primary target of the intervention. A measure of expressive language will be added in future investigations. Effects on the students' problem behavior as measured by the SSRS were in the right direction but not statistically significant. It was encouraging that the intervention teachers rated the target children as having gained significantly more in their social skills during the intervention period than did teachers of the comparison children. However, it is impossible to separate teacher and parent knowledge of children's participation in the intervention from the extent to which their social skills actually showed documentable changes. The addition of in vivo behavioral observations, recorded by professionally trained observers within home and school settings on pre and post occasions, would have more conclusively documented changes in social skills. This measure will be added in future investigations.

It is perplexing that gains in parent-rated social skills were significantly greater for the comparison group children than for the intervention group children over the intervention period. With such small cell sizes, the likelihood of such an outcome is probably enhanced.

It is well established that oral language skills are important precursors to literacy development (Catts, Fey, Zhang, & Tomblin, 1999; Dickinson, McCabe, Anastasopoulos, Peisner-Feinberg, & Poe, 2003; Storch & Whitehurst, 2002), and that low-income children are especially at a disadvantage regarding vocabulary development (Biemiller, 1999; Hart & Risley, 1995). The activities in the early literacy component focused on developing oral language and print knowledge through interactive read-alouds and a range of engaging alphabet activities. The intent of the alphabet activities was to develop children's knowledge of letter names and sounds through repeated daily exposure. The intent of the interactive storybook reading was to develop background knowledge and accelerate language development with the addition of extended follow-up conversations between the research assistant and the children.

The preliminary finding that changes in receptive vocabulary, as measured by the PPVT, yielded a large effect size (Cohen's $d=.95$) favoring the literacy and literacy plus social skills condition over the comparison condition is encouraging, particularly in light of the relatively short, 10-week duration of the intervention. It may be that the interactive storybook reading

activity, with the addition of the extended follow-up conversations between the consultant and the children, solidified story concepts and gave them more opportunities to hear and use new vocabulary than was normally the case. This is an aspect of the intervention that we want to further explore and refine in future research.

Head Start teachers requested that the children remain in the classroom, so the research assistant worked with them in a corner of the room. However, we found that this approach had some disadvantages that interfered with the delivery, and potentially the effectiveness of the activities. The noise level and distractions in the room made it difficult for the children to focus at times, and the natural curiosity of the other children drew them in, creating more distractions for participating children. In view of the drawbacks to the pullout method, and the potential for all children in Head Start classrooms to benefit from the intervention activities, a next step will be to evaluate the efficacy of the literacy intervention within a whole class setting. The whole class literacy approach will allow us to examine which features of the intervention produce beneficial outcomes for all children, regardless of their literacy preparation.

In a similar vein, there appeared to be reluctance among some Head Start administrators to fully support teachers' participation in First Step because it requires teacher time and involvement to ensure successful implementation. In another ongoing line of research, we have developed a universal version of First Step and will combine it with the secondary version of the program in future studies to evaluate its effectiveness. To date, preliminary studies of the combined application of the universal and secondary versions of First Step program to date have been quite encouraging within Oregon Head Start programs.

The results of this initial work suggest that a combined intervention addressing literacy and social domains among behaviorally at-risk Head Start populations is worthy of further development, investigation, and evaluation. In future research, we will evaluate this intervention with larger numbers of Head Start classrooms, teachers, and children over and extended intervention and follow-up period using a randomized comparison design.

References

- Adams, MJ.; Osborn, J. Beginning reading instruction in the United States. 1990.
- Arnold DS, Lonigan CJ, Whitehurst GJ, Epstein JN. Accelerating language development through picture book reading: Replication and extension to a videotape training format. *Journal of Educational Psychology* 1994;86:235–243.
- Biemiller A. Teaching vocabulary. *American Educator* 1999;25:24–28.
- Bos, CS.; Coleman, M.; Vaughn, S. Reading and students with E/BD: What do we know and recommend?. In: Lane, KL.; Gresham, FM.; O'Shaughnessy, TE., editors. *Interventions for children with or at risk for emotional and behavioral disorders*. Boston: Allyn & Bacon; 2002.
- Catts HW, Fey ME, Zhang X, Tomblin JB. Language basis of reading and reading disabilities: Evidence from a longitudinal investigation. *Scientific Studies of Reading* 1999;3:331–361.
- Cunningham, AE.; Stanovich, KE. Word recognition in beginning literacy. Mahwah, NJ: Erlbaum; 1998. The impact of print exposure on word recognition; p. 235.-262.
- Dickinson DK, McCabe A, Anastasopoulos L, Peisner-Feinberg ES, Poe MD. The comprehensive language approach to early literacy: The interrelationships among vocabulary, phonological sensitivity, and print knowledge among preschool children. *Journal of Educational Psychology* 2003;95(3):465–481.
- Dunn, LM.; Dunn, LM. Peabody Picture Vocabulary Text Revised. Circle Pines, MN: American Guidance Service; 1997.
- FAN. Child Mental Health Foundations and Agencies Network (FAN). 2000. (Report focused on children's social/emotional competence and its relationship to school readiness and success).

- Francis DJ, Shaywitz SE, Stuebing KK, Shaywitz BA, Fletcher JM. Developmental lag versus deficit models of reading disability: A longitudinal, individual growth curves analysis. *Journal of Educational Psychology* 1996;88(1):3–17.
- Gresham, FM.; Elliott, S. *The Social Skills Rating System (SSRS)*. Circle Pines, MN: American Guidance Service; 1990.
- Gunn, BK.; Simmons, DC.; Kame'enui, EJ. *What Reading Research Tells Us About Children With Diverse Learning Needs: Bases and Basics*. Mahwah, NJ: Lawrence Erlbaum Associates; 1998. Emergent literacy: Instructional and curricular basics and implications; p. 51.-59.
- Harden BJ, Winslow MB, Kendziora KT, Shahinfar A, Fox NA, Crowley MJ, Zahn-Wixler C. Externalizing problems in Head Start children: An ecological exploration. *Early Education and Development* 2000;11:357–385.
- Hart, B.; Risley, TR. *Meaningful differences in the everyday experience of young American children*. Baltimore, MD: Paul H. Brookes; 1995.
- Hinshaw S. Externalizing behavior problems and academic underachievement in childhood and adolescence: Causal relationships and underlying mechanisms. *Psychological Bulletin* 1992;111(1): 127–155. [PubMed: 1539086]
- Juel C. Learning to read and write: A longitudinal study of 54 children from first through fourth grades. *Journal of Educational Psychology* 1988;80(4):437–447.
- Kaiser AP, Cai X, Hancock TB, Foster EM. Teacher reported behavior problems and language delays in boys and girls enrolled in Head Start. *Behavioral Disorders* 2002;28(1):23–29.
- Kellam, SG.; Mayer, LS.; Rebok, GW.; Hawkins, WE. Effects of improving achievement on aggressive behavior and of improving aggressive behavior on achievement through two preventive interventions: An investigation of causal paths. In: Dohrenwend, BP., editor. *Adversity, Stress, and Psychopathology*. New York: Oxford University Press; 1998. p. 486.-505.
- Lane, KL.; Gresham, FM.; O'Shaughnessy, TE. *Interventions for children with or at risk for emotional and behavioral disorders*. Boston: Allyn & Bacon; 2002.
- Lonigan CJ, Burgess SR, Anthony JL. Development of emergent literacy and early reading skills in preschool children: Evidence from a latent-variable longitudinal study. *Developmental Psychology* 2000;36:596–613. [PubMed: 10976600]
- Malecki C, Elliott S. Children's social behaviors as predictors of academic achievement: A longitudinal analysis. *School Psychology Quarterly* 2002;17(1):1–23.
- McCardle P, Scarborough HS, Catts H. Predicting, explaining, and preventing children's reading difficulties. *Learning Disabilities Research and Practice* 2001;16:230–239.
- McGee R, Prior M, Williams S, Smart D, Sanson A. The long-term significance of teacher-rated hyperactivity and reading ability in childhood: findings from two longitudinal studies. *Journal of Child Psychology and Psychiatry* 2002;43(8):1004–1017. [PubMed: 12455922]
- O'Shaughnessy TE, Lane KL, Gresham FM, Beebe-Frankenberger ME. Children placed at risk for learning and behavioral difficulties. *Remedial and Special Education* 2003;24:27–35.
- Patterson GR, DeBaryshe BD, Ramsey E. A developmental perspective on antisocial behavior. *Special Issue: Students and their development: Knowledge base, research agenda, and social policy application*. *American Psychologist* 1989;44:329–35. [PubMed: 2653143]
- Rimm-Kaufman SE, Pianta RC, Cox MJ. Teachers' judgments of problems in the transition to kindergarten. *Early Childhood Research Quarterly* 2000;15(2):147–166.
- Slavin RE, Madden NA, Dolan LJ, Wasik BA, Ross S, Smith L, Dianda M. Success for All: A summary of research. *Journal of Education for Students Placed at Risk* 1996;1(1):41–76.
- Storch SA, Whitehurst GJ. Oral language and code-related precursors to reading: Evidence from a longitudinal structural model. *Developmental Psychology* 2002;38:934–947. [PubMed: 12428705]
- Tomblin JB, Zhang X, Buckwalter P, Catts H. The association of reading disability, behavioral disorders, and language impairment among second-grade children. *Journal of Child Psychology and Psychiatry* 2000;41(4):473–482. [PubMed: 10836677]
- Torgesen JK. Individual differences in response to early interventions in reading: The lingering problem of treatment resisters. *Learning Disabilities Research and Practice* 2000;15:55–64.

- Walker HM, Kavanagh K, Stiller B, Golly A, Severson HH, Feil EG. First Step to Success: An early intervention approach for preventing school antisocial behavior. *Journal of Emotional and Behavioral Disorders* 1998;6(2):66–80.
- Walker, HM.; Kavanagh, K.; Stiller, B.; Golly, A.; Severson, HH.; Fell, EG. First step to success: An early intervention program for antisocial kindergartners. Longmont, CO: Sopris West; 1997.
- Walker, HM.; Severson, HH.; Feil, EG. Early Screening Project: A proven child-find process. Longmont, CO: Sopris West; 1995.
- Whitehurst GJ, Arnold DS, Epstein JN, Angell AL, Smith M, Fischel JE. A picture book reading intervention in day care and home for children from low-income families. *Developmental Psychology* 1994;30:679–689.
- Yoshikawa, H.; Knitzer, J. Lessons from the field: Head Start mental health strategies to meet changing needs. New York: National Center for Children in Poverty; 1997.
- Zins, JE.; Weissberg, RP.; Wang, MC.; Walberg, RP. Building academic success on social and emotional learning: What does the research say?. New York: Teachers College Press; 2004.