9

A SCHOOL–FAMILY PARTNERSHIP

Addressing Multiple Risk Factors to Improve School Readiness and Prevent Conduct Problems in Young Children

CAROLYN WEBSTER-STRATTON AND M. JAMILA REID

While researchers have long considered intelligence to be a key predictor of success in school, recent studies indicate that the social and emotional adjustment of young children are strong predictors of early academic achievement even after controlling for variations in children's cognitive abilities and family resources (Grolnick & Slowiaczek, 1994; Raver & Zigler, 1997). Children with emotional difficulties such as Oppositional Defiant Disorder (ODD), Attention Deficit Hyperactivity Disorder (ADHD) and "early onset" conduct problems (CPs) (defined as high rates of aggression, noncompliance, and oppositional behaviors) are at high risk for underachievement, school absences, and eventual school drop out (Moffitt, 1993; Tremblay, Mass, Pagani, & Vitaro, 1996). Data from the National Center for Education Statistics survey of kindergarten teachers indicate that teachers' predominant concern is for regulatory and emotional aspects of children's behavior (West, Denton, & Reaney, 2001). In particular, 84% of teachers endorsed that children need to be able to communicate wants, needs, and thoughts verbally and 60% endorsed that children need to be able to follow directions, not be disruptive in class, and be sensitive to other children's feelings in order to succeed in school. In contrast, only 21% endorsed the idea that children need to be able to use a pencil, and only 7% endorsed knowing several letters of the alphabet and being able to count to 20 as very important to being ready for kindergarten. This survey suggests that teachers are most concerned that children have the prerequisite emotional self-regulation (engagement, ability to stay on task, feelings vocabulary, ability to manage anger) and social skills (cooperation, sharing, helping) that will allow for manageable classrooms, and children's effective academic learning.

Unfortunately, prevalence studies suggest that aggressive and oppositional behaviors in children are starting earlier and escalating in intensity (Patterson, Capaldi, & Bank, 1991; Snyder, 2001). Studies indicate that 7–20% of young children exhibit "early-onset" conduct problems and meet diagnostic criteria for ODD, and these rates may be as

high as 35% for low-income families (Rimm-Kaufman, Pianta, & Cox, 2000; Webster-Stratton & Hammond, 1998; Webster-Stratton & Lindsay, 1999). In a survey conducted by the National Center for Early Development and Learning, 46% of a nationally representative sample of kindergarten teachers indicated that over half of the children in their classrooms lacked the kinds of self-regulatory skills that would enable them to function productively in kindergarten (West et al., 2001). Thus, it is clear that there is an urgent need for preventative and early intervention efforts designed to promote school readiness and reduce conduct problems so that children are able to achieve the desired academic outcomes.

OVERVIEW

In this chapter we will review the Incredible Years (IY) Parent, Teacher and Child Training Curricula and summarize research on the effectiveness of these three programs for reducing risk factors and strengthening protective factors associated with children's social emotional development and school success. The chapter will include a focus on the role of home-school partnerships in preventing and treating children's behavior problems and improving their school readiness as well as practical tips for engaging schools in the prevention and intervention process.

RISK FACTORS FOR POOR SOCIAL-EMOTIONAL DEVELOPMENT AND CONDUCT PROBLEMS

Children's social-emotional development occurs in a number of important areas: (a) emotional self-regulation (e.g., ability to identify and manage strong emotions such as anger, excitement, and frustration); (b) social competence (e.g., sharing, helping, cooperation, positive peer interactions, prosocial problem solving); and (c) compliance and cooperation to school rules and adults' requests. There is no single risk factor that leads to poor social development and conduct problems, rather it is the cumulative effect of multiple risk factors that intertwine and cascade to increase risk for poor outcomes (Coie et al., 1993; Hawkins, Catalano, & Miller, 1992). Risk factors are grouped into four categories: (a) parent and family risk factors, (b) poverty, (c) school and classroom risk factors, and (d) child biological risk factors.

Parent and Family Risk Factors

Research has consistently identified a set of family "risk factors" that increase the odds that children will struggle with emotional, behavioral, and cognitive difficulties. Family risk factors indicate that children from low education, highly stressed or isolated families, single-parent families, and families with low proficiency in English are at higher risk for developing social and emotional problems. Children from families where there is marital discord or abuse, maternal depression, or drug abuse are also at risk (Hawkins et al., 1992). Parenting practices associated with the development of behavior problems include inconsistent and harsh discipline, low monitoring, low school involvement, and poor cognitive stimulation at home (Snyder, Schrepferman, & St. Peter, 1997).

Poverty

The Early Child Longitudinal Survey (ECLS), a nationally representative sample of over 22,000 kindergarten children, suggests that exposure to multiple poverty-related risks increases the odds that children will demonstrate more behavioral problems and less academic, social, and emotional competence. Offord and colleagues found that low income is a significant risk factor for the early onset of conduct problems and social and academic deficits (Offord, Alder, & Boyle, 1986). A study of low-income preschool classrooms highlights the high need of economically disadvantaged children indicating that, on average, these children exhibited 32 negative behaviors in 10 minutes (Goldstein, Arnold, Rosenberg, Stowe, & Ortiz, 2001).

School and Classroom Risk Factors

Negative academic and social experiences contribute to poor school performance (Coie & Dodge, 1998). Aggressive, disruptive children quickly become socially excluded (Dodge, Coie, Pettit, & Price, 1990; Ladd, 1990) and so have fewer opportunities to interact socially and to learn friendship skills. Over time, peers become mistrustful and respond to aggressive children in ways that increase the likelihood of reactive aggression (Dodge et al., 1990; Dodge & Somberg, 1987). Evidence suggests that peer rejection eventually leads to association with deviant peers (Patterson, Reid, & Dishion, 1992), which increases the risk for academic underachievement, school drop out, and drug abuse.

Research highlights the role that teachers can play in preventing this negative school cycle by using good classroom management techniques, developing clear classroom rules about bullying and social isolation, and conducting direct instruction in friendship skills and conflict management skills (e.g., Brophy, 1996). Longitudinal research demonstrates that low-income children in high-quality child care settings with positive teacher-student relationships, effective management, and opportunities for positive social interaction are significantly better off, both cognitively and emotionally, than similar children in low quality settings (Burchinal, Roberts, Hooper, & Zeisel, 2000).

Unfortunately, however, the highest-risk children are often placed in school situations that do not provide them with the support they need. A troubling 1994 survey found that teachers serving predominantly low-income children used significantly more harsh, detached, and insensitive teaching strategies than teachers serving middle-income children (Phillips, Voran, Kisker, Howes, & Whitebrook, 1994; Stage & Quiroz, 1997). Other research shows that children with behavior problems are less likely to be accepted by teachers, and receive less academic instruction, support, and positive feedback for appropriate behavior (Arnold, Griffith, Ortiz, & Stowe, 1998; Arnold et al., 1999; Carr, Taylor, & Robinson, 1991). Moreover, teachers are less likely to recognize cognitive competencies in young children whose behaviors they perceive as negative (Espinosa, 1995). In summary, children with behavior problems are more likely to be the recipients of poor classroom management and are often disliked by teachers and peers (Birch & Ladd, 1997).

A preventive model also requires supportive networks between parents and schools,

children and schools, and parents and teachers (Hawkins & Weiss, 1985). While most teachers want to be active partners with parents, teacher education programs devote little attention to helping them learn ways to build partnerships with parents (Chavkin, 1991), and many teachers lack the skills or training to work collaboratively with families (Burton, 1992; Epstein, 1992). This can lead to a spiraling pattern of child negative behavior, teacher reactivity, and parent demoralization and withdrawal, which results in a lack of connection and consistency between the school and home (Webster-Stratton, 1996).

Clearly, providing teachers with training in effective classroom management and methods to support children's social development is crucial to providing a school environment where children can learn and excel. A focus on home-school connections and communication will also benefit from parents' increased expectations, interest in, and support for their children's social and academic performance (Hawkins & Weiss, 1985) and a consistent socialization process across home and school settings.

Child Risk Factors

Child-specific developmental or temperament risk factors such as negative emotionality, attention deficit/hyperactivity disorder, impulsivity, language delays, and deficits in social-cognitive skills contribute to poor emotional regulation (Underwood, 1997), compliance problems and aggressive peer interactions (Dodge & Price, 1994). Children with these self-regulation problems frequently define social interactions in hostile ways, seek less information, generate fewer alternative solutions to social problems, and anticipate fewer consequences for aggression (Richard & Dodge, 1982; Rubin & Krasnor, 1986). These children distort social cues during peer interactions (Milich & Dodge, 1984) and make attributions of hostile intent to neutral interactions, causing them to react aggressively (Dodge, 1993). Aggressive behavior in children is correlated with low empathy (Feshbach, 1989), which may contribute to lack of social competencies and antisocial behavior. Finally, studies indicate that children with conduct problems have significant delays in their peer play skills; in particular, difficulty with reciprocal play, cooperation, turn taking, waiting, and giving suggestions (Webster-Stratton & Lindsay, 1999). These poor play skills result in them being rejected or isolated by other children, which further perpetuates their social problems.

Poor social-emotional development often exists in combination with academic delays (Webster-Stratton & Lindsay, 1999) and learning problems (Moffitt & Lynam, 1994). This relationship between academic performance and social and emotional competence is bi-directional. Academic difficulties may cause disengagement, increased frustration, and lower self-esteem, which may trigger the emergence or escalation of children's behavior problems. At the same time, noncompliance, aggression, elevated activity levels, and poor attention limit a child's ability to engage in learning, and result in less teacher encouragement and instruction. Thus, a cycle is created whereby one problem exacerbates the other (Schonfeld, Shaffer, O'Connor, & Portnoy, 1988). The combination of academic delays and behavior problems eventually leads to more severe behavior problems and school failure.

A COMPREHENSIVE PREVENTION/INTERVENTION APPROACH

In summary, risk factors for children's conduct problems operate across settings. Comprehensive interventions are needed that address parent/family, teacher/classroom, and child risk factors as well as the interplay between these risk factors in the home and school settings. Interventions delivered in one setting (e.g., home or school) are less effective than interventions that cross settings and foster communication between the important caregivers in a child's life, that is, both parents *and* teachers (Beauchaine, Webster-Stratton, & Reid, 2005). Such coordinated interventions should be delivered as early as possible in children's school experience and should include direct instruction for children in social skills and emotion regulation as well as strategies for parents and teachers that help to effectively manage behavior, increase home-school communication, and create a positive and safe learning environment. Lastly, since children living in poverty are at increased risk, targeting interventions in day care setting and schools that serve socioeconomically disadvantaged families may be a strategic way to reach more children in need.

INCREDIBLE YEARS PARENT, TEACHER AND CHILD PROGRAMS

The Incredible Years (IY) Parent, Teacher, and Child Training Series is a set of three comprehensive, multifaceted, developmentally based and interlocking programs designed to target the more malleable risk factors for parents, teachers, and children. Although the programs are designed so that they can be delivered in isolation (e.g., a family could participate in the parent program without also receiving the child or teacher intervention), our research shows that the combination of the parent with the teacher or child programs produces the most change in children (Beauchaine et al., 2005). The programs are designed to train parents and teachers to promote children's emotional, social, and academic competence and to prevent, reduce, and treat aggression and emotional problems in young children 2- to 8-years-old. The IY programs target preschool and early school-age children for several reasons. First, school entry is an important transition when children are exposed to a new setting and additional risk factors that begin to intertwine and cascade. Longitudinal research highlights the poor prognosis for children with early-onset conduct and social-emotional problems, suggesting that early intervention is crucial (Coie, 1990). There is evidence that the earlier intervention is offered, the more positive the child's behavioral adjustment at home and at school and the greater chance of preventing later academic and social problems (Taylor & Biglan, 1998).

In addition, preschool, day care, or kindergarten may be the first opportunity to provide services to large groups of high-risk children in a comprehensive but cost effective manner. This is often the first school experience that children have, and thus, is the first chance for intervention delivered in a classroom setting. Intervention during this first school experience can help to start children and their parents out on a positive school trajectory, smoothing the transition from home (or day care) to preschool and then from preschool to elementary school.

Collaborative Partnerships Between Parents and Teachers

All of the Incredible Years programs are based on a collaborative model with some underlying assumptions that guide the interventions' focus on parent-teacher partnerships.

> *Assumption 1) That all parties involved in a child's care have valuable information to share about the child.* In this model, there is no "expert," rather parents and teachers are both recognized for the information they have to share about the child and his or her behavior in certain circumstances. The therapist helps to highlight this information and to guide discussions and practice around using the information to plan for intervention for the child.
>
> *Assumption 2) That each person involved in the child's care cares for the child and wants the child to be successful.* Frequently parents and teachers both feel overwhelmed and isolated. Each may blame the other for not trying hard enough or not having the answers to a child's problems. Therapists highlight the hard work and caring that both parents and teachers (and other school personnel) are putting in to help a child. They also spend time with parents and teachers separately; discussing ways that each can talk with the other about their concerns in nonconfrontive and supportive ways. As the common goals that parents and teachers have for a child are better defined, each can begin to recognize and provide recognition for the important role that the other plays.
>
> *Assumption 3) That consistency across settings is extremely important in order to provide lasting change in children's behavior.* When parents and teachers communicate about behavior plans, use the same language and strategies, and show the child that they each support the other, intervention effects will be stronger and will generalize from one setting to another. Therapists facilitate parent and teacher meetings and provide scaffolding for jointly developing behavior plans that address targeted behaviors.

The IY Parent Program

The IY Parent Program objectives focus on strengthening parenting competencies and fostering parents' involvement with school. The goals of the program include improving parent-child relationships, decreasing behavior problems, increasing home-school communication, building supportive family networks, and helping parents to teach children social skills and emotion regulation. The method of delivering the program includes a group format in which a trained group leader facilitates discussions among parents about parenting, child development, and family issues. The program is not a didactic, one-size-fits all approach but rather is based on a collaborative model, which has been described in some detail in a book entitled, Troubled Families—Problem Children: Working With Parents: A Collaborative Process (Webster-Stratton & Herbert, 1994). Collaboration implies a reciprocal relationship based on utilizing equally the group leader's knowledge and the parents' unique strengths and cultural perspectives. Collaboration also implies respect for each person's contributions, a non-blaming

relationship built on trust and open communication. For example parents are shown video vignettes of parents in a variety of common parenting situations and settings, and these serve as "triggers" to start discussions among parents. This collaborative process assures interactive learning and self-management. Parents and children shown on the vignettes represent multiple cultural backgrounds.

There are two versions of the "basic" parent curriculum: one series for parents of preschoolers (ages 3–6 years) and another set of programs for parents of early school-age children (ages 6–8 years). Recently a baby (0–12 months) and toddler series (1–3 years) were developed, and the school-age basic program was revised and expanded to include 9- to 13-year-olds. These new programs are currently undergoing evaluation. In addition to the basic parenting programs, there is also an advanced parenting program that focuses on adult interpersonal issues such as anger management, effective communication, and problem solving skills. Finally, there are two supplemental programs designed for helping parents know how to help their children succeed in school. The School Readiness Series designed for 3- to 5-year-olds and the Supporting Your Child's Education Program for 6- to 10-year-olds focus on such as topics as doing homework with children, monitoring children after school, building children's self-confidence and promoting reading skills. There are comprehensive leader's manuals (Webster-Stratton, 1984, 2001, 2007) that provide recommended protocols for offering the programs. These protocols are considered the *minimal* number of core sessions, vignettes, and content to be covered in order to achieve results similar to those in the published literature. The program topics for the basic parent programs are listed in Table 9.1. In addition to learning cognitive, behavioral and social learning principles and management skills, parents are helped to understand and accept individual differences in children's temperaments, attention spans, play skills, and abilities to regulate emotions. Parents are helped to understand how these individual developmental differences will need differing parental responses and to have developmentally appropriate expectations. Each week parents are given chapters to read from a book called *The Incredible Years: A Trouble Shooting Guide for Parents* (Webster-Stratton, 2006a) as well as behavioral practice assignments to complete at home.

Table 9.1 Parent Program Topics

- Child-directed play
- Academic, persistence, social and emotion coaching to promote school readiness
- Interactive reading with children
- Supporting children's education (predictable homework routines and homework coaching and support)
- Effective praise and encouragement
- Using incentives to help motivate children
- Positive Disciplines: Rules, routines, and responsibilities
- Positive Disciplines: Effective limit setting
- Handling Misbehavior: Ignoring, Time Out to calm down, and logical consequences
- Teaching children to problem-solve
- Anger management
- Problem solving for adults
- Giving and getting support
- How to collaborate with teachers

The IY Teacher Program: Classroom Management Training

The IY teacher classroom management curriculum (IYT) is delivered over 6 days. Like the parent program, the training is delivered in groups with trained leaders who use a collaborative training style. Similarly, video vignettes are used as catalysts for teacher group discussion and problem solving. IYT is designed to be sequenced throughout the academic year and provides time for teachers to practice skills between sessions, maximizing the opportunities for practice and transfer of training into the classroom. Teachers are given "hands on" classroom assignments and are asked to read from the book, How to Promote Children's Social and Emotional Competence (Webster-Stratton, 1999). The program topics are listed in Table 9.2. Promotion of positive teacher relationships with challenging students and developing supportive behavior plans for children who are exhibiting high levels of problem behaviors are other foci of the intervention. Teachers are taught instructional techniques to engage inattentive children in learning, encourage language and reading development by using interactive (dialogic) reading, and to coach and strengthen social skills and emotion language. Teachers work to prevent peer rejection by helping the aggressive child to use appropriate problem-solving strategies and helping his/her peers respond appropriately to aggression. As with parents, training focuses on helping teachers understand individual developmental and temperament differences (i.e., variation in attention span) and how to make adjustments for children with biological deficits (e.g., child with ADHD who is impulsive, hyperactive, and with a short attention span or child with learning delays) and the relevance of these differences for instructional teaching strategies that are positive, consistent, and developmentally appropriate. Physical aggression in unstructured settings (e.g. playground, during choice times) is targeted for close monitoring, teaching, and incentive programs. Another theme throughout this training process is to strengthen the teachers' collaboration with parents through positive phone calls home or emails and regular meetings with parents to coordinate school-home behavior plans. More details about this curriculum can be found in (Webster-Stratton & Reid (2001).

Table 9.2 Teacher Training Workshops

- Proactive Teaching Strategies: redirection, handling transitions, warnings, clear and positive classroom rules, schedules, predictable routines, specific instructions
- Promoting Academic and Social Competence: "coaching" persistence, social and self-regulatory behavior, on-task behavior, following directions, checking work
- Effective Praise and Encouragement
- Using Individual and Group Incentives to Motivate Students
- Managing Disruptive Behavior: limit setting, ignoring, Time Out and consequences, and self-management instruction
- Building Positive Relationships With Challenging Students
- Working with Parents: teacher-parent partnerships, developing positive home-school bonds, communicating about problems
- Managing Teacher Stress
- Functional Assessment and Development of Behavior Plans

The Child Program: Dinosaur Curriculum

There are two versions of the Child Program curriculum, each with its own manual. The small group *treatment* model is designed to be offered to small groups of 4 to 6 children in weekly 2-hour sessions. Ideally, this program is offered in combination with the parent group program and lasts 20 to 22 weeks. The small group treatment model has also been used in schools as a "pull out" model whereby small groups of children are pulled out several times a week for extra tutoring with this curriculum. These sessions are usually offered by school psychologists or counselors in 1-hour sessions twice a week. More details regarding this small group intervention can be found in Webster-Stratton and Reid (2003).

The second version is a classroom curriculum that is delivered by teachers (often in partnership with school counselors or school psychologists) and includes up to 90 lessons covering three grade levels, which can be delivered 2 to 3 times a week. The delivery of this curriculum involves 15- to 25-minute large group circle time lesson discussions followed by 20 minutes of small group practice activities. There are over 200 small group activities for teachers to choose from that focus on social emotional skills as well as other school readiness activities, such as pre-reading and pre-writing activities, math and science concepts, fine and gross motor skills and creative art projects. The program topics are listed in the Table 9.3. As with the parent and teacher programs, this content is illustrated through video vignettes that children watch and discuss. In addition, teachers use child-size puppets to discuss and role-play content with the children. Learning is enhanced by activities, games, songs, colorful cue cards illustrating key concepts, and Dinosaur homework activity books. In the classroom, multiple opportunities for problem-solving practice and reinforcement from teachers take place in less structured settings, such as during choice time, in the lunchroom, or on the playground. More details about this curriculum can be found in Webster-Stratton and Reid (2004).

Table 9.3 Dinosaur Curriculum

- Apatosaurus Unit: Wally and Dina Teach School Rules
  Making new friends; learning classroom rules; understanding what will happen if rules are broken
- Iguanodon Unit: Dina Teaches About Doing Your Best in School
  Learning how to put up a quiet hand; listening and waiting skills; learning how to stop, think and check; practicing cooperation skills
- Triceratops Unit: Wally Teaches About Understanding and Detecting Feelings
  Learning words for different feelings; understanding why different feelings occur; practicing talking about feelings; identifying other feelings; learning relaxation skills
- Stegosaurus Unit: Wally Teaches How to Problem Solve
  Learning to identify a problem; thinking of solutions to hypothetical problems; learning to handle common problems such as being teased, left out, hit; thinking of consequences and evaluating solutions
- Tyrannosaurus Rex Unit: Tiny Turtle Teaches Anger Management
  Recognizing anger; using self-talk, visualization and relaxation methods to control anger and calm down; practicing alternative responses to anger producing situations
- Allosaurus Unit: Molly Teaches How to Be Friendly
  Learning the concept of sharing, helping, and teamwork
- Brachiosaurus Unit
  Learning how to listen; speak up; give compliments, apologies and suggestions; and enter into groups of children already playing

RESEARCH OUTCOMES

Treatment Studies With Diagnosed Children

Parent Training   Extensive research evaluating the Incredible Years Parenting Programs in numerous randomized control group trials (RCTs) indicates that the program is an effective treatment approach for reducing early onset-conduct problems (Brestan & Eyberg, 1998; Taylor & Biglan, 1998). Successful short-term outcomes have been verified by the developer (Webster-Stratton, 1982, 1984, 1989, 1994; Webster-Stratton & Hammond, 1997; Webster-Stratton, Reid, & Hammond, 2004) and by independent investigators, who found significant changes in parents' behavior and reductions in children's levels of aggression (Scott, Spender, Doolan, Jacobs, & Aspland, 2001; Taylor, Schmidt, Pepler, & Hodgins, 1998). The treatment was also effective for children who were comorbid for attention problems as well as conduct problems (Hartman, Stage, & Webster-Stratton, 2003). Generalization of the positive effects of parent training from the clinic setting to the home over reasonable follow-up periods (1 to 3 years) and to untreated child behaviors has also been demonstrated (Webster-Stratton, 1990a). However, while training parents improves children's behaviors at home, it does not necessarily result in improvements in children's behavior at school unless teachers are involved in the intervention.

In our own studies, approximately one third of children with conduct problems whose parents received parent training continued to have peer relationship problems and academic and social difficulties at school 2 to 3 years later, according to parent and teacher reports (Webster-Stratton, 1990a). These data pointed to the need for school-based intervention to help teachers manage children's aggressive behavior, support their education socially and academically, and work collaboratively with parents. A second problem with parent training is that some parents cannot, or will not, participate in parent training because of work conflicts, life stress, personal psychopathology, language barriers, or lack of motivation. Third, some parents have difficulty implementing or maintaining the strategies taught in parent training programs due to their own interpersonal and family issues (Webster-Stratton, 1990b). Furthermore, data from teachers revealed their need for training in classroom management skills, classroom social skills content, and information on home-school collaboration (Webster-Stratton, 1990a; Webster-Stratton & Hammond, 1990; Webster-Stratton, Hollinsworth, & Kolpacoff, 1989) to manage the increasing numbers of children in their classrooms with behavior problems. Since children frequently spend more time in school with teachers than with their parents, it is important to partner with teachers in providing consistent strategies for managing behavior in the classroom setting.

Teacher Training   The IY Teacher Classroom Management Training program was first evaluated in a randomized study with children diagnosed with ODD/CD (Webster-Stratton et al., 1989). In this study children were randomly assigned to six treatment conditions including parent only training, child only training, parent + teacher training, child + teacher training, or a combination of parent + child + teacher training, and control condition. Results showed that teachers who received training used fewer inappropriate and critical discipline strategies and were more nurturing than control

teachers. Ninety-four percent of teachers evaluated the training as very helpful. All of the 72 teachers in the intervention conditions that included teacher training attended or made up all of the training sessions and no teachers dropped out of the study. Immediately after treatment children in all five intervention conditions engaged in fewer aggressive and noncompliant behaviors in the classroom, and exhibited higher levels of school readiness (on-task, cooperative, attentive) than control children. However, by the 2-year follow up there was evidence that the addition of teacher training to either the parent or child treatment conditions enhanced school outcomes for children.

Child Training The Incredible Years Dinosaur curriculum, a social skills, emotion, and problem-solving skills training program was first evaluated as a small group treatment program in two RCTs with 4- to 7-year-old children with conduct problems (ODD/CD). Results for children who participated in the 20 to 22 weekly treatment programs showed reductions in observed aggressive behaviors and increases in observed pro-social behavior compared with an untreated control group (Webster-Stratton & Hammond, 1997; Webster-Stratton et al., 2004). These improvements were maintained 1 and 2 years later. Moreover, treatment was also effective for children with comorbid hyperactivity, impulsivity, and attentional difficulties (Webster-Stratton, Reid, & Hammond, 2001b). Additionally, in an RCT study comparing the IY child training program with child training plus parent training results showed that adding the child program to the IY parent program enhanced long-term outcomes for children who exhibited pervasive behavior problems across settings (home and school). The combined child and parent program reduced behavior problems in both settings and improved children's social interactions and conflict management skills with peers (Webster-Stratton & Hammond, 1997).

Prevention Studies With Higher Risk Children

Each of the three IY treatment programs, Parent, Child, and Teacher have been adapted and evaluated as selective prevention programs in schools with high numbers of socio-economically disadvantaged families.

Parent Training There have been three RCTs with the parent program in schools. In the first of these studies (Webster-Stratton, 1998), the parent program was delivered to families enrolled in Head Start. Classrooms were randomly assigned to receive the IY parent group in the intervention condition or a control group of the usual Head Start services. Results with 394 parents and their 4-year-old children showed that 85% of the intervention families completed greater than 50% of the program. Following the program, mothers in the intervention condition were observed to be significantly less critical and more positive than control mothers. Teachers reported intervention mothers were more involved in their children's education. Children whose mothers were in the intervention program were observed to exhibit fewer conduct problems, less negative affect, and more positive affect than children in the control group. Teachers reported the children whose mothers were in the intervention condition to be more socially competent than control children. One year later most of the improvements noted in intervention condition mothers and children were maintained. Clinical significance

analyses indicated that 71% of children were categorized as responders (i.e., moving into the normal range on standardized measures or showing > 30% improvement). Consumer satisfaction was high in all groups (including Spanish and Vietnamese participants) with 88.7% positive to very positive ratings and 95.8% saying they would recommend it to others.

The parent program has also been evaluated for parents of high-risk kindergarten and first grade students (Reid, Webster-Stratton, & Hammond, 2007). In this study a subset of children who were identified as having high-risk behaviors by parents and teachers on standardized measures were randomly assigned to receive the parent training program plus classroom training in Dinosaur Curriculum (PT+CR) or the classroom training only (CR) intervention. Parents in the combined intervention condition reported that their children showed fewer externalizing problems and more emotional regulation than parents in the classroom only condition or control conditions. Mothers were more supportive, less critical, and more bonded with their children in the condition that included parent training compared to classroom only and control mothers. Teachers reported that mothers in the intervention condition that included parent training were more involved in school than mothers in CR or control conditions. This study shows the added benefit of including a parent program alongside a classroom intervention, for higher risk students exhibiting higher rates of aggressive behavior.

Teacher and Child Training   The IY Teacher Classroom Management Training program has also been evaluated as a prevention program (Webster-Stratton & Reid, 2007; Webster-Stratton, Reid, & Hammond, 2001a). Head Start classrooms were randomly assigned to two conditions: an IY teacher + parent training condition or usual Head Start services. At the end of the year, observations in the classroom revealed that trained teachers showed significantly improved classroom management skills and their children showed significantly fewer conduct problems compared with control teachers and children. Results also showed that in the teacher + parent training condition there was significantly higher parent-teacher bonding than in the control condition. Teacher-parent bonding was measured by teacher report on the INVOLVE-T which includes items such as: teacher called or wrote note to parent, invited parent to visit school, attend a conference, or a school meeting, and teacher felt comfortable with parent. This study validates the use of the teacher-training program as a preventive intervention in high-risk classrooms.

Lastly, the child Dinosaur Program has been evaluated as a prevention program delivered to all children in a classroom setting in combination with the teacher-training program. In a recent RCT (Webster-Stratton, Reid, & Stoolmiller, 2008), teachers were trained in the classroom management program as well as the child dinosaur program. They delivered the curriculum in twice weekly lessons throughout the school year to students enrolled in Head Start, kindergarten, and first grade classrooms. Results from 153 teachers and 1,768 students indicated that trained teachers were significantly different from control teachers on four of five variables: harsh/critical, warm/affectionate, inconsistent/permissive, and social/emotional. Intervention teachers used more specific teaching strategies that addressed social and emotional skills than teachers in control classrooms. The effect sizes were moderate to high, indicating that the curriculum had

robust effects on changing teachers' classroom management approaches. Students' behavior also changed, and observations showed significant improvement in emotional self-regulation, social competence and conduct problems compared with control students' behaviors. Here the effect sizes were strongest for those students from classrooms with the worst initial scores for school readiness and conduct problems. Teachers in the intervention group reported feeling more bonded or involved with parents of children in their classes, with the strongest effects occurring with teachers who reported initial low bonding with parents. Finally, teacher evaluations indicated that teachers were very satisfied with their training and their ability to implement the curriculum in conjunction with their academic curriculum. This study points to the added impact of a classroom-based child social and emotional training program in terms of strengthening students' overall school readiness and reducing conduct problems.

SCHOOLS AS AN OPTIMAL SETTING FOR DELIVERING INTERVENTION PROGRAMS FOR PARENTS, TEACHERS, AND CHILDREN

Our original mission was to implement and evaluate these intervention programs in a clinic setting for children referred with the diagnoses of ODD and/or CD and/or ADHD over 25 years ago. We have come to believe there are important reasons for delivering evidence-based programs in daycare centers, Head Start, preschool, and primary schools. From a practical point of view, offering well-validated intervention programs in schools is a strategic way to provide more accessible interventions to families and children. A school-based delivery system is likely to reach many more families, particularly those of different cultural and socioeconomic backgrounds who may be reluctant to seek help in mental health centers or unable to pay for such services. Moreover, there is evidence that parent programs offered in non-stigmatizing locations, such as schools, are more likely to attract multicultural groups than programs offered in mental health clinics (Cunningham, Bremner, & Boyle, 1995). Another related advantage to delivering programs in schools is the sheer number of high-risk children that can be identified early and offered services *before* their problems have escalated, or resulted in a diagnosis, or a negative school reputation. Schools hold the potential for providing one of the most efficient and effective service delivery methods for providing preventive interventions. Schools are ideally positioned to provide parent programs as well as direct services for the children. Providing better access to such services for families is important because currently statistics show that less than 10% of children with emotion-regulation/conduct problems ever receive any mental health services (Kazdin, 1995), and even fewer ever receive an evidence-based intervention (Brestan & Eyberg, 1998). An added advantage of offering parent interventions in schools is that collaboration between teachers and parents can be promoted more easily (than in clinic settings) and offer a greater chance of increasing consistency of approaches for children across settings (from home to school and vice versa) leading to the possibility of sustained effects (Webster-Stratton et al., 2004).

Next, we see tremendous advantages for training daycare providers, teachers, and other school personnel (e.g., school psychologists, nurses) in classroom management

strategies and in ways to collaborate with parents. Many caregivers and teachers have had little formal training in ways of counseling parents or working with them to develop behavior plans. Classroom teachers often have had little comprehensive training in evidence-based classroom management strategies. The importance of teacher training is emphasized by the clear consensus among child development experts that the essence of successful early school years resides in the quality of the child-teacher-parent relationship and the ability of teachers to provide a positive, consistent, and responsive classroom environment. Training teachers in effective classroom management skills will enhance the quality of teaching and instruction that teachers deliver. National studies have indicated that the number one concern of teachers is how to manage behavior problems in the classroom (West et al., 2001) and that unless they can do this they are unable to successfully teach academic skills.

Good classroom management is a necessary pre-requisite to delivering a social skills or problem-solving curriculum. While teachers skilled in good classroom management strategies will have classrooms with more cooperative children and fewer problems with aggressive behavior, there is still a need for classroom-wide social skills and problem-solving curriculum to be delivered to all students. Classroom-wide intervention (teacher and child training) is preferable to "pull out" programs for high-risk students because there are increased opportunities for more prosocial children to model appropriate skills and to provide the entire classroom with a common vocabulary and problem-solving steps to use in every day conflicts. Thus, social competence is strengthened for the lower-risk as well as the aggressive children, and the classroom environment generally fosters appropriate social skills for all children on an ongoing basis. Additionally, with a classroom-based model, while formal social skills training may consist of two to three sessions a week, teachers can provide informal reinforcement of the key concepts throughout the day as children encounter real problems. Thus, the dosage of intervention is greatly magnified. Unfortunately, few teachers have been trained to deliver evidence-based social skills curricula or are given the time in their schedule to offer such programs in the ways they were designed to be delivered. Even with the classroom-based social and problem-solving curriculum, it can still be helpful for some children with greater social and emotional needs to have "pull out" tutoring in addition, to give them added practice in social interactions and problem solving. The advantage of this is that when they return to the classroom, their teacher and other students will be reinforcing the concepts they have learned in small group pullout sessions.

In summary, children in their first years of preschool and elementary school are developing social and emotional skills at a pace exceeding any other later stage of life. Their behavior is still flexible and their cognitive processes are malleable and receptive to adult socialization processes. Teaching and learning that happens in this age range is crucial because it either sets a firm or fragile foundation for later relationships and socialization, learning, and attitudes toward school. School-based interventions offer an opportunity for more accessible child, teacher, and parent interventions that coordinate the efforts of families and school personnel to give children the best possible start, perhaps leading to a cycle of lasting improvements in school achievement and mental health.

PRACTICAL TIPS FOR RECRUITMENT OF SCHOOLS, TEACHERS, AND FAMILIES

Targeting Intervention Delivery

While we believe that in an ideal world all schools would deliver evidence-based parent, teacher, and child interventions, a practical allocation of resources requires a selection process for service delivery. We began by targeting schools for intervention that served high numbers of socio-economically disadvantaged families and children. As we noted earlier, children living in poverty situations are at greater risk for poor school readiness and conduct problems because of the increased number of family and child risk factors to which they are exposed. Our choice to offer the programs in Head Start and elementary schools that served high percentages of children receiving free lunch reflects the increased needs of children and families in these settings. For example, our data suggest that 28% of families served by the Puget Sound Head Start program were referred to mental health centers for child adjustment problems but very few of them ever sought out services (Webster-Stratton, 1998). When offered our parent program in the Head Start center, 85% of families attended at least half of the parenting sessions. Head Start administrators reported there were fewer referrals for outside mental health programs because teachers felt they could manage the children in the classroom.

School Engagement

Preparing schools about what it takes to learn and successfully deliver an empirically validated intervention is an important process for administrators and teachers to understand before they purchase curriculum or send teachers for training. Success depends on extensive groundwork to determine whether the intervention's goals, methods, and training requirements are compatible with the school's needs and philosophy.

Step One: Administrative Support   The approach we used when recruiting schools was to meet the principals and to present the IY programs' goals, curriculum, and research results. Administrative buy-in is crucial because the effective delivery of the programs depends on adherence to the intervention model, including allowing teachers and other school personnel time to attend trainings and prepare to deliver the parent and child curriculums. While teachers will be delivering the child program and very few will have the time to deliver the parent program, other school personnel such as school counselors, school psychologists, or nurses may be in a position to offer the parent program. Or, partnerships with mental health agencies may be developed to provide the parent programs. In addition, the most effective delivery of the school programs requires a consistent school-wide approach to behavior management and is more likely to be sustained if there is administrative support. To facilitate administrative support for the program, we also recommend that that at least one administrative person attend the training. This will lead to greater understanding of the program as well as indicate support for the teacher's efforts to learn the new curriculum.

Step Two: Teacher Buy-In   Once administrative level support is obtained, then the front-line teaching staff and school counselors, school psychologists, or family advocates

need to be involved in the decision about whether to use the curriculum. Support and "buy in" for the program by teachers and school personnel is crucial because, ultimately, these people will be participating in the training and doing the work to deliver the programs. For this to happen with high quality and fidelity, teachers and other school personnel need to be enthusiastic and committed to deliver the program. Ideally, the IY programs are delivered to all teachers, parents, and children in the early grades so that there is a consistent intervention model throughout the school. It is important that a school reach consensus that this program fits with their needs and goals. Our approach was to meet with the teachers and the principal to provide an over view of the programs and to tell them what was involved in the training and delivery of the curriculum. We also encouraged schools to include parent advocates or representatives in these meetings so that their opinions, needs, and goals were incorporated into the decision-making process. If teachers do not feel consulted about their views on whether to adopt the curriculum and have a chance to work out how it will fit into other programs they are offering, they will be resistant to the training and to the delivery of the program.

Step Three: Schools Determine Their Needs and Philosophy   After this initial introduction to the program, administrators, teaching staff, and parent representatives are encouraged to complete a school-readiness process to assess their perceived needs for intervention and to determine whether the IY program's goals and philosophy match their own needs and goals. This readiness assessment is done with support from the IY staff, but ideally, the final decision and impetus to adopt the IY curricula rests with the school. It is the role of the IY staff to provide realistic information about the training goals, time commitment, cost, and anticipated outcomes so that the school can make an informed decision. Initial investment in an empirically validated intervention is somewhat costly and time consuming, and schools must be willing to make this investment in order to reap the longer-term benefits. In addition, schools may also be offering other social and emotional curriculum so it will be important for them to have a very specific plan for how these programs will work together or how the IY program will replace what they are already doing. It is important that this be worked out before teachers attend training so that their fears are reduced.

Step Four: Practical and Funding Considerations   Schools must understand that to deliver the programs with fidelity, the full program must be offered. Therefore, schools must decide whether they have the staff available to deliver the different program components (e.g., school counselors, school psychologists, family advocates, or other interested staff to deliver the parent program). Support staff to assist teachers in material preparation is essential, especially the first time they deliver the curriculum.

Some of the program costs are direct and obvious (e.g., the cost of the curriculum, cost of training). Other costs involve staff time to attend training and the cost of substitute teachers for these training days. Staff also need extra time to prepare and deliver the programs and to receive on-going supervision and consultation. Even family recruitment can be costly in terms of the time that staff will need to spend to ensure that families are informed about the groups. This is especially important with the high-risk families whose parents do not attend school functions. Also, to reach families for the parent component of the program, groups will need to be offered at

times of day that families can attend (usually evenings), child care and snacks or meals will need to be provided, and interpreters for non-English-speaking parents will also need to be provided. Ideally transportation would be very helpful for those families who do not have a car or a way of getting to the school. It is of note that those schools with Title 1 funding have mandates to provide parent education so that they can write in the Incredible Years Parent program as their parent education component for improving their children's educational success. This funding will ensure that funding is not a barrier to program delivery.

Step Five: Attention to Ongoing Monitoring and Program Fidelity   Schools that make a commitment to use these programs should set up a system for on-going program fidelity and on-going consultation. It is helpful to have a staff person who is responsible for on-going monitoring as part of their job. Administrative attention to program fidelity, evaluation, and certification of leaders is very important so that the program takes hold and produces the expected results. It is also important that administrators and teachers understand the concept of fidelity—and why it is necessary that the program be delivered using the recommended dosage and methods. The fidelity of the Dinosaur curriculum is reduced by offering it once a month instead of twice a week, or only doing the circle times and not the small group practices, or failing to show the videotape modeling or practice exercises, or not involving parents or sending home the Dinosaur homework. When this happens, schools will fail to get the results obtained in research studies. As part of the certification process for teachers, they are encouraged to videotape their lessons and circle times and to meet with other teachers regularly to share their lesson tapes with each other. In addition, they may send DVDs to the Incredible Years for review and feedback.

Factors to Consider When Selecting Teachers for Training

Whenever one is introducing change to a system, there are those individuals who are early adopters and are eager and motivated to try out new programs and ideas. There are also those who are "late adopters," who will wait to see how a program works with others before wanting to try it. Although we believe that, ultimately, it is best if all teachers in a school adopt the same intervention strategies, sometimes the best method of introducing change is a gradual one. We believe it most effective to let a group of skilled and enthusiastic early adopters begin the program first. These will be the natural leaders in a school, and if they like the program, once they have learned it, they will be in a position to help support others learning the program. We do not recommend mandating teachers to take the program, even if they are the less effective teachers. This sense of being forced to take a program creates resistance and is usually counterproductive. We also have been able to offer teachers CE or credits, which can be motivating for some teachers. One example of the success of starting with volunteer teachers to be trained first to implement the program is that of the work of Hutchings and colleagues (Hutchings, Daley, Jones, Martin, & Gwyn, 2007) in Wales. After only 3 years they now are in over 100 schools with successful results.

Factors to Consider When Selecting Group Leaders for Training in Parent Program

In addition to selecting the best teachers to begin to pilot and introduce the new curriculum to a school, it is also important to identify those who will be in the best position to deliver the parent groups. Usually, teachers do not have the time to add this to their workload so school counselors or school psychologists are in a better position to offer this program. Again, finding those early adopters or champions who are motivated and interested in delivering parent groups is key to the ultimate success of a program's delivery. Selection criteria include group leaders who have a master's level education and have had courses in child development and social learning theory. If schools do not have these individuals, they may contract with mental health agencies to coordinate delivery of the parent programs. However, even if schools contract with mental health professionals to deliver the parent groups, it is essential that schools be actively involved in recruiting parents for the program—this cannot be left up to the group leaders. This raises the issue of the school's philosophy about the importance of family involvement in the school culture. For example, do schools pay lip service to parent involvement or do they truly value their input? For parent groups to be successful, administrators and teachers will need to set up a plan for recruiting parents and for promoting them. In Head Start, this recruitment process began the very first time a parent showed interest in that Head Start center. Parents were told that part of the services that they offered were not only for the children but also programs for the parents so they could learn how to help their children be successful in school. Brochures were given out explaining the parent program, and teachers recommended it at orientation nights, in parent meetings, and newsletters home.

Factors to Consider When Selecting Families for Parent Program

Since schools may not be financially able to provide parent programs to all parents in a school, decisions have to be made about who will be eligible for participating in the parent training program. Each school will need to make these decisions based on their funding, philosophies, and needs. For example, in Head Start this program is most often offered to all parents who have children enrolled in Head Start. Head Start's program philosophy, which includes parent education, and staffing with family service workers, made it possible to achieve this goal. The advantage of this universal model is that it presents the program as something that can benefit all parents and takes away the possible stigma that parents might feel if they think they are being singled out because of their child's behavior or their own parenting skills. Public schools that serve many more families are unlikely to be able to offer the program to everyone. In this case, schools may make the decision to offer programs first to parents of children with the highest risk behaviors. It is very important in this case to advertise the program as a program to help children be successful in school not as a program for behavior-problem children. If possible, including some families in the group who do not have children in the high-risk range provides a more balanced group and helps to make the program even more accepted in the school. Another strategy is to offer the parent program universally but have the teachers target and encourage the parents of the higher risk students for

personal invitations. As with the teacher programs, initial buy-in to a new program can be difficult. It is our experience that recruitment for a school's first few groups can be very challenging. Once parents begin attending the sessions, they usually become very invested in completing the program. After the first few cycles of groups, other parents hear about the program through word of mouth and it is often the case that the later groups have waiting lists of parents who want to attend the classes. As with the teacher programs, beginning by offering the parent program to some early adopters or parents who are community leaders may be helpful in establishing the groups. Some of these early adopters can become parent volunteers or mentors in subsequent parenting groups.

Delivering Parent Programs to Diverse Cultures

In our most recent study, 73% of the families enrolled represented diverse cultures and 31% spoke English as a second language. Since many parent groups are multicultural, it is important to train leaders to deliver the parent programs using culturally sensitive principles that are generalizable across cultures. Group leaders who have a multicultural perspective acknowledge, respect, and affirm cultural differences. All parents in the group determine their own goals for themselves and their children in the first session, and the leaders help them learn and apply the behavior management skills to achieve these goals. More information about affirming diversity when leading groups can be found in Webster-Stratton (in press). For many parents these basic behavior management principles are completely unfamiliar, foreign, and difficult to grasp at first. Therefore, group leaders may need to expand the number of sessions on the topic, show more video examples than in the standard protocol, and provide more opportunities for practice and feedback. Sometimes parents will opt to attend the program a second time to get a more secure grasp of the principles.

Partnering with carefully selected interpreters who are well-respected leaders from the same communities and cultural backgrounds as parents can provide another avenue of understanding between the group leaders and the families who do not speak the same language as the leaders. By collaborating closely with these interpreters, group leaders have further opportunities to learn more about a particular culture, values, and parenting beliefs. In preparation for leading groups, group leaders and interpreters can have thoughtful and sensitive discussions about how to translate particular parenting strategies across cultures, so that parents understand how the concepts are relevant for achieving their goals for their children (For additional information see focus group interviews with interpreters in Webster-Stratton, 2006b).

Training Interpreters   Before working with the parent groups, interpreters themselves need comprehensive training to understand the rationale, child development principles, and social learning theories underlying the parenting socialization concepts that underpin the Incredible Years program. Initially, interpreters may find the parenting concepts to be foreign to their own experiences and may be unsure of the translations for particular concepts and the value of the skills for their families. Therefore, it is important to take the time to explore these issues with interpreters before starting the group, so

that interpreters will be confident and convincing in their translations to parents. To help interpreters understand the behavior management concepts underpinning the program, they are encouraged to participate "as a parent" in a parent group first and then practice the strategies they have learned with their own children or with children in a preschool setting. The interpreters' role is not only to translate words, but to help bridge the gap between the different cultures so that parents understand the *meaning* of the concepts and relevance for their families. It is our belief that multicultural groups lead to greater understanding among parents of differing cultural backgrounds and experiences leading to more respectful and tolerant communities.

RECOMMENDATIONS

Planning for Sustainability

Since initial program and training costs are often a significant investment for a school, it is important for a school to build a plan for sustainability of these programs. The IY program has a long-term goal of training those who adopt the program to become self-sufficient so that they eventually have in-house staff who can offer on-going training and support to their schools. This process involves having group leaders or teachers progress through a certification process that ensures program fidelity and then to enter a training process to become a school mentor. This mentor training process may take between 3 to 4 years, but is well worth the time and energy for any school that wants to use IY as a sustainable intervention. The first year of the program is the most expensive in terms of program and training costs. In subsequent years, most program materials will already be purchased and training needs will be less.

Building a Supportive Infrastructure and Providing Ongoing Consultation

Ideally, a supportive infrastructure will be set up that allows teachers and parent group leaders to participate in on-going peer supervision, to have time and support for materials preparation, and to receive ongoing consultation. When working with a new program with challenging children and families, there is likely to be a steep learning curve. Teachers and parent group leaders will need opportunities to share experiences with each other and also to receive supervision from more experienced leaders. In the first years of implementation, supervision and consultation will need to come from the IY program developers. As schools continue with the program and build up their reservoir of certified teachers and parent group leaders with experience, the need for outside consultation will diminish.

SUMMARY

Surveys indicate that teachers are very concerned about the number of children who arrive in their classrooms lacking the emotional regulation and social skills to be able to function productively and learn in the classroom. They report that they are unable to teach academic skills because of the behavior management issues in the classroom. Moreover, these issues are even more prevalent in classrooms with high percentages of

students from poverty situations and where there is a poor connection or involvement between the parents and teacher. Research with the IY program has shown in multiple RCTs that by working collaboratively with parents, teachers, and children, it is possible to significantly improve children's social competence and emotion regulation, reduce conduct problems, and involve parents in their children's learning. In particular, the highest risk children make the most significant gains. However, in order to implement these programs with success, it is important first for schools and agencies to carefully assess their needs, determine that the program meets their goals, and obtain both administrative and teacher commitment. Schools must also plan carefully to provide adequate training, support, and consultation to those delivering the programs. If they do so, the programs will be delivered with a high degree of fidelity. In addition, planning for future sustainability will be achieved by supporting leaders' certification/accreditation process and identifying mentors for ongoing training who can provide subsequent training and technical support within the agency/school on an ongoing basis.

REFERENCES

Arnold, D. H., Griffith, J. R., Ortiz, C., & Stowe, R. M. (1998). Day care interactions and teacher perceptions as a function of teacher and child ethnic group. *Journal of Research in Childhood Education, 12*(2), 143–154.

Arnold, D. H., Ortiz, C., Curry, J. C., Stowe, R. M., Goldstein, N. E., Fisher, P. H., et al. (1999). Promoting academic success and preventing disruptive behavior disorders through community partnership. *Journal of Community Psychology, 27*, 589–598.

Beauchaine, T. P., Webster-Stratton, C., & Reid, M. J. (2005). Mediators, moderators, and predictors of one-year outcomes among children treated for early-onset conduct problems: A latent growth curve analysis. *Journal of Consulting and Clinical Psychology, 73*(3), 371–388.

Birch, S. H., & Ladd, G. W. (1997). The teacher-child relationship and children's early school adjustment. *Journal of School Psychology, 35*, 61–79.

Brestan, E. V., & Eyberg, S. M. (1998). Effective psychosocial treatments of conduct-disordered children and adolescents: 29 years, 82 studies, and 5,272 kids. *Journal of Clinical Child Psychology, 27*, 180–189.

Brophy, J. E. (1996). *Teaching problem students*. New York: Guilford.

Burchinal, M. R., Roberts, J. E., Hooper, S., & Zeisel, S. A. (2000). Cumulative risk and early cognitive development: A comparison of statistical risk models. *Developmental Psychology, 36*, 793–807.

Burton, C. B. (1992). Defining family-centered early education: Beliefs of public school, child care, and Head Start teachers. *Early education and development, 3*(1), 45–59.

Carr, E. G., Taylor, J. G., & Robinson, S. (1991). The effects of severe behavior problems in children on the teaching behavior of adults. *Journal of Applied Behavior Analysis, 24*, 523–535.

Chavkin, N. F. (1991). Uniting families and schools: Social workers helping teachers through inservice training. *School Social Work Journal, 15*, 1–10.

Coie, J. D. (1990). Adapting intervention to the problems of aggressive and disruptive rejected children. In S. R. Asher & J. D. Coie (Eds.), *Peer Rejection in Childhood* (pp. 309–337). Cambridge, UK: Cambridge University Press.

Coie, J. D., & Dodge, K. A. (1998). Aggression and antisocial behavior. In W. Damon & N. Eisenberg (Eds.), *Handbook of child psychology, Fifth Edition: Social, emotional and personality development* (Vol. 3, pp. 779–862). New York: Wiley.

Coie, J. D., Watt, N. F., West, S. G., Hawkins, D., Asarnow, J. R., Markman, H. J., et al. (1993). The science of prevention: A conceptual framework and some directions for a national research program. *American Psychologist, 48*, 1013–1022.

Cunningham, C. E., Bremner, R., & Boyle, M. (1995). Large group community-based parenting programs for families of preschoolers at risk for disruptive behaviour disorders: Utilization, cost effectiveness, and outcome. *Journal of Child Psychology and Psychiatry, 36*, 1141–1159.

Dodge, K. A. (1993). Social-cognitive mechanisms in the development of conduct disorder and depression. *Annual Review of Psychology, 44*, 559–584.

Dodge, K. A., Coie, J. D., Pettit, G. S., & Price, J. M. (1990). Peer status and aggression in boys' groups: Developmental and contextual analyses. *Child Development, 61*(5), 1289–1309.

Dodge, K. A., & Price, J. M. (1994). On the relation between social information processing and socially competent behavior in early school-aged children. *Child Development, 65*, 1385–1397.

Dodge, K. A., & Somberg, D. R. (1987). Hostile attributional biases among aggressive boys are exacerbated under conditions of threats to the self. *Child Development, 58*(1), 213–224.

Epstein, A. (1992). School and family partnerships. In M. Alkin (Ed.), *Encyclopedia of Educational Research* (pp. 1139–1151). New York: MacMillan.

Espinosa, L. M. (1995). Hispanic involvement in early childhood programs. ERIC Digest. Urbana, IL: ERIC Clearinghouse on Elementary and Early Childhood Education. Available: http://www.ed.gov/databases/ERIC_Digests/ed382412.html

Feshbach, N. (1989). The construct of empathy and the phenomenon of physical maltreatment of children. In D. Cicchetti & V. Carlson (Eds.), *Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect* (pp. 349–373). Cambridge, MA: Cambridge University Press.

Goldstein, N. E., Arnold, D. H., Rosenberg, J. L., Stowe, R. M., & Ortiz, C. (2001). Contagion of aggression in day care classrooms as a function of peer and teacher response. *Journal of Educational Psychology, 93*, 708–719.

Grolnick, W. S., & Slowiaczek, M. L. (1994). Parents' involvement in children's schooling: A multidimensional conceptualization and motivational model. *Child Development, 65*, 237–252.

Hartman, R. R., Stage, S., & Webster-Stratton, C. (2003). A growth curve analysis of parent training outcomes: Examining the influence of child factors (inattention, impulsivity, and hyperactivity problems), parental and family risk factors. *The Child Psychology and Psychiatry Journal, 44*(3), 388–398.

Hawkins, J. D., Catalano, R. F., & Miller, Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin, 112*, 64–105.

Hawkins, J. D., & Weiss, J. G. (1985). The social developmental model: An integrated approach to delinquency prevention. *Journal of Primary Prevention, 6*, 73–95.

Hutchings, J., Daley, D., Jones, E. E., Martin, P., & Gwyn, R. (2007). Early results from developing and researching the Webster-Stratton Incredible Years Teacher Classroom Management Training Programme in North West Wales. *British Educational Research journal, 2*(3), 15–26.

Kazdin, A. E. (1995). *Conduct disorders in childhood and adolescence.* Thousand Oaks, CA: Sage.

Ladd, G. W. (1990). Having friends, keeping friends, making friends, and being liked by peers in the classroom: Predictors of children's early school adjustment? *Child Development, 61*(4), 1081–1100.

Milich, R., & Dodge, K. A. (1984). Social information processing in child psychiatric populations. *Journal of Abnormal Child Psychology, 12*(3), 471–489.

Moffitt, T. E. (1993). Adolescence-limited and life-course-persistent antisocial behavior: A developmental taxonomy. *Psychological Review, 100*, 674–701.

Moffitt, T. E., & Lynam, D. (1994). The neuropsychology of conduct disorder and delinquency: Implications for understanding antisocial behavior. In D. C. Fowles, P. Sutker, & S. H. Goodman (Eds.), *Progress in experimental personality and psychopathology research* (pp. 233–262). New York: Springer.

Offord, D. R., Alder, R. J., & Boyle, M. H. (1986). Prevalence and sociodemographic correlates of conduct disorder. *The American Journal of Social Psychiatry, 6*, 272–278.

Patterson, G., Reid, J., & Dishion, T. (1992). *Antisocial boys: A social interactional approach* (Vol. 4). Eugene, OR: Castalia Publishing.

Patterson, G. R., Capaldi, D., & Bank, L. (1991). An early starter model for predicting delinquency. In D. J. Pepler & K. H. Rubin (Eds.), *The development and treatment of childhood aggression* (pp. 139–168). Hillsdale, NJ: Erlbaum.

Phillips, D., Voran, M., Kisker, E., Howes, C., & Whitebrook, M. (1994). Child care for children in poverty: Opportunity or inequity? *Child Development, 65*, 472–492.

Raver, C. C., & Zigler, E. F. (1997). Social competence: An untapped dimension in evaluating Head Start's success. *Early Childhood Research Quarterly, 12*, 363–385.

Reid, M. J., Webster-Stratton, C., & Hammond, M. (2007). Enhancing a classroom social competence and problem-solving curriculum by offering parent training to families of moderate-to-high-risk elementary school children. *Journal of Clinical Child and Adolescent Psychology, 36*(5), 605–620.

Richard, B. A., & Dodge, K. A. (1982). Social maladjustment and problem solving in school-aged children. *Journal of Consulting and Clinical Psychology, 50*(2), 226–233.

Rimm-Kaufman, S. E., Pianta, R. C., & Cox, M. J. (2000). Teachers' judgments of problems in the transition to kindergarten. *Early Childhood Research Quarterly, 15,* 147–166.

Rubin, K. H., & Krasnor, L. R. (1986). Social-cognitive and social behavioral perspectives on problem-solving. In M. Perlmutter (Ed.), *Cognitive perspectives on children's social and behavioral development. The Minnesota Symposia on Child Psychology* (Vol. 18, pp. 1–68). Hillsdale, NJ: Erlbaum.

Schonfeld, I. S., Shaffer, D., O'Connor, P., & Portnoy, S. (1988). Conduct disorder and cognitive functioning: Testing three causal hypotheses. *Child Development, 59*(4), 993–1007.

Scott, S., Spender, Q., Doolan, M., Jacobs, B., & Aspland, H. (2001). Multicentre controlled trial of parenting groups for child antisocial behaviour in clinical practice. *British Medical Journal, 323*(28), 1–5.

Snyder, H. (2001). Child delinquents. In R. Loeber & D. P. Farrington (Eds.), *Risk factors and successful interventions.* Thousand Oaks, CA: Sage.

Snyder, J., Schrepferman, L., & St. Peter, C. (1997). Origins of antisocial behavior: Negative reinforcement and affect dysregulation of behavior as socialization mechanisms in family interaction. *Behavior Modification, 21*(2), 187–215.

Stage, S. A., & Quiroz, D. R. (1997). A meta-analysis of interventions to decrease disruptive classroom behavior in public education settings. *School Psychology Review, 26,* 333–368.

Taylor, T. K., & Biglan, A. (1998). Behavioral family interventions for improving child-rearing: A review for clinicians and policy makers. *Clinical Child and Family Psychology Review, 1*(1), 41–60.

Taylor, T. K., Schmidt, F., Pepler, D., & Hodgins, H. (1998). A comparison of eclectic treatment with Webster-Stratton's Parents and Children Series in a children's mental health center: A randomized controlled trial. *Behavior Therapy, 29,* 221–240.

Tremblay, R. E., Mass, L. C., Pagani, L., & Vitaro, F. (1996). From childhood physical aggression to adolescent maladjustment: The Montreal Prevention Experiment. In R. D. Peters & R. J. MacMahon (Eds.), *Preventing childhood disorders, substance abuse and delinquency* (pp. 268–298). Thousand Oaks: Sage.

Underwood, M. K. (1997). Peer social status and children's understanding of the expression and control of positive and negative emotions. *Merrill-Palmer Quarterly, 43,* 610–634.

Webster-Stratton, C. (1982). The long term effects of a videotape modeling parent training program: Comparison of immediate and 1-year followup results. *Behavior Therapy, 13,* 702–714.

Webster-Stratton, C. (1984). Randomized trial of two parent-training programs for families with conduct-disordered children. *Journal of Consulting and Clinical Psychology, 52*(4), 666–678.

Webster-Stratton, C. (1984). *The Incredible Years Parent Training Manual: BASIC Program.* Seattle, WA: Author.

Webster-Stratton, C. (1989). Systematic comparison of consumer satisfaction of three cost-effective parent training programs for conduct problem children. *Behavior Therapy, 20,* 103–115.

Webster-Stratton, C. (1990a). Long-term follow-up of families with young conduct problem children: From preschool to grade school. *Journal of Clinical Child Psychology, 19*(2), 144–149.

Webster-Stratton, C. (1990b). Stress: A potential disruptor of parent perceptions and family interactions. *Journal of Clinical Child Psychology, 19,* 302–312.

Webster-Stratton, C. (1994). Advancing videotape parent training: A comparison study. *Journal of Consulting and Clinical Psychology, 62*(3), 583–593.

Webster-Stratton, C. (1996). Parenting a young child with conduct problems: New insights using grounded theory methods. In T. H. Ollendick & R. S. Prinz (Eds.), *Advances in clinical child psychology* (pp. 333–355). Hillsdale, NJ: Erlbaum.

Webster-Stratton, C. (1998). Preventing conduct problems in Head Start children: Strengthening parenting competencies. *Journal of Consulting and Clinical Psychology, 66*(5), 715–730.

Webster-Stratton, C. (1999). *How to promote children's social and emotional competence.* London: Sage.

Webster-Stratton, C. (1984; 2001; 2007). *The Incredible Years Parent Training Manual: BASIC Program.* Seattle, WA: Author.

Webster-Stratton, C. (2006a). *The Incredible Years: A trouble-shooting guide for parents of children ages 3–8 years.* Seattle, WA: Incredible Years Press.

Webster-Stratton, C. (2006b). *Training interpreters to deliver the Incredible Years Parent Program: A cross cultural collaboration.* Unpublished manuscript.

Webster-Stratton, C. (1984; 2001; 2007). *The Incredible Years Parent Training Manual: BASIC Program.* Seattle, WA: Author.

Webster-Stratton, C. (in press). Affirming diversity: Multi-cultural collaboration to deliver the Incredible Years Parent Programs *The International Journal of Child Health and Human Development.*

Webster-Stratton, C., & Hammond, M. (1990). Predictors of treatment outcome in parent training for families with conduct problem children. *Behavior Therapy, 21,* 319–337.

Webster-Stratton, C., & Hammond, M. (1997). Treating children with early-onset conduct problems: A comparison of child and parent training interventions. *Journal of Consulting and Clinical Psychology, 65*(1), 93–109.

Webster-Stratton, C., & Hammond, M. (1998). Conduct problems and level of social competence in Head Start children: Prevalence, pervasiveness and associated risk factors. *Clinical Child Psychology and Family Psychology Review, 1*(2), 101–124.

Webster-Stratton, C., & Herbert, M. (1994). *Troubled families—problem children: Working with parents: A collaborative process.* Chichester, UK: Wiley.

Webster-Stratton, C., Hollinsworth, T., & Kolpacoff, M. (1989). The long-term effectiveness and clinical significance of three cost-effective training programs for families with conduct-problem children. *Journal of Consulting and Clinical Psychology, 57*(4), 550–553.

Webster-Stratton, C., & Lindsay, D. W. (1999). Social competence and early-onset conduct problems: Issues in assessment. *Journal of Child Clinical Psychology, 28*, 25–93.

Webster-Stratton, C., & Reid, M. J. (2001). *Incredible Years Teacher Training Program: Content, Methods and Processes.* Unpublished manuscript.

Webster-Stratton, C., & Reid, M. J. (2003). Treating conduct problems and strengthening social emotional competence in young children (ages 4–8 years): The Dina Dinosaur treatment program. *Journal of Emotional and Behavioral Disorders, 11*(3), 130–143.

Webster-Stratton, C., & Reid, M. J. (2004). Strengthening social and emotional competence in young children—The foundation for early school readiness and success: Incredible Years Classroom Social Skills and Problem-Solving Curriculum. *Journal of Infants and Young Children, 17*(2), 185–203.

Webster-Stratton, C., & Reid, M. J. (2007). Incredible Years Parents and Teachers Training Series: A Head Start partnership to promote social competence and prevent conduct problems In P. Tolin, J. Szapocznick, & S. Sambrano (Eds.), *Preventing youth substance abuse* (pp. 67–88). Washington D. C.: American Psychological Association

Webster-Stratton, C., Reid, M. J., & Hammond, M. (2001a). Preventing conduct problems, promoting social competence: A parent and teacher training partnership in Head Start. *Journal of Clinical Child Psychology, 30*(3), 283–302.

Webster-Stratton, C., Reid, M. J., & Hammond, M. (2001b). Social skills and problem solving training for children with early-onset conduct problems: Who benefits? *Journal of Child Psychology and Psychiatry, 42*(7), 943–952.

Webster-Stratton, C., Reid, M. J., & Hammond, M. (2004). Treating children with early-onset conduct problems: Intervention outcomes for parent, child, and teacher training. *Journal of Clinical Child and Adolescent Psychology, 33*(1), 105–124.

Webster-Stratton, C., Reid, M. J., & Stoolmiller, M. (2008). Preventing conduct problems and improving school readiness: Evaluation of the Incredible Years Teacher and Child Training Programs in high-risk schools. *Journal of Child Psychology and Psychiatry 49*(5), 471–488.

West, J., Denton, K., & Reaney, L. M. (2001). *The kindergarten year: Findings from the Early Childhood Longitudinal Study, kindergarten class of 1998–1999* (Publication No. NCES2001-023). Washington, DC: Department of Education, National Center for Education Statistics.