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Treatment and Prevention of Conduct Problems: Parent Training Interventions for Young Children (2–7 Years Old)

Carolyn Webster-Stratton and M. Jamila Reid

Early-onset oppositional, defiant, and aggressive behaviors in young children are serious problems, which, when left untreated, lead to more serious and costly antisocial behaviors (i.e., conduct disorder, substance abuse, mental illness, delinquency, and violence). Research has identified an array of risk factors, processes, and possible behavioral targets for reducing delinquency (Snyder, 2001). The children at greatest risk of engaging in antisocial acts in adolescence are those who exhibit high levels of conduct problems at earlier ages. The risk of later problems is further increased if the child with early-onset conduct problems is exposed to additional risk factors such as deviant peers, low school bonding, teachers with poor classroom management skills, harsh or inconsistent parenting, or low parental monitoring. Consequently, effective interventions designed to treat or prevent conduct problems must lead to a clear change in one or more of these risk factors.

A number of child and family risk factors contribute to the development of early-onset conduct problems in a cumulative and synergistic manner (Hawkins & Weiss, 1985; J. B. Reid & Eddy, 1997). Our model, as outlined in Figure 30.1, derived from a model described by John Reid and Mark Eddy (1997), begins in the toddler period. Children with impulsive and volatile temperaments often overwhelm parents and interfere with developing positive parent–child interactions. Parents may respond with harsh or inconsistent discipline strategies, which exacerbate child behavior problems. Thus ineffective parenting results in increased child behavior problems, which, in turn, makes the child increasingly difficult to parent. When children with these family and child risk factors enter school, the developmental model becomes more complex. Teachers are more critical of, and provide less teaching and support to, the children who are inattentive, uncoop-

erative, and fail to follow their directions (Shores & Wehby, 1999). Parents may be uninvolved or feel unwelcome in the school setting, eroding the bonds between the home and school. Over time, rejected children form deviant peer groups that reinforce antisocial behaviors. Thus, early home problems spill over into the school and peer group settings. Research indicates that the more risk areas children are exposed to, the greater the likelihood of a negative behavioral outcome later in life (Hawkins, Catalano, & Miller, 1992). As can be seen in Figure 30.1, cascading domains of risk factors make early prevention/intervention imperative.

This review identifies and describes empirically supported prevention and intervention parent programs (Mrazek & Haggerty, 1994) that target risk behaviors in early childhood (ages 2–7 years). The review covers selective prevention programs (targeting children at risk because of socio-familial and environmental factors) and indicated interventions (targeting children diagnosed with oppositional defiant disorder or conduct disorder). We focus this review on parent programs because of the substantial work showing that parent-mediated interventions are the most promising approach for preventing the escalation of conduct problems (for review see Brestan & Eyberg, 1998; Taylor & Biglan, 1998). Included in this review are parent interventions that also incorporate child and classroom or teacher training components as adjuncts to parent training. These multi-focused interventions seek to address multiple risk factors across settings. We conclude by outlining key features of effective programs and policy implications for implementing empirically supported programs.

The Importance of Early Intervention

Longitudinal studies consistently confirm the relation between early-onset conduct problems and later delinquency, substance abuse, and antisocial behavior (Moffitt, 1993; Patterson, DeBaryshe, & Ramsey, 1989; Tremblay, Mass, Pagani, & Vitaro, 1996). Eron (1990) concluded that, without intervention, aggressive tendencies crystallize around age 8 years of age. Other research indicates that if children with aggressive behavior problems are not treated by age 8, their problems become less responsive to intervention in later years and are more likely to become a chronic disorder (Bullis & Walker, 1994; Francis, Shaywitz, Stuebing, Shaywitz, & Fletcher, 1991). Additionally, 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 delinquency and drug abuse (Taylor & Biglan, 1998).

Characteristics of Empirically Validated Interventions

To be included in this review, programs had at least one (preferably two) published, randomized control-group trial documenting effectiveness compared to an alternate treatment or no treatment. Effectiveness was measured by direct reductions in parental

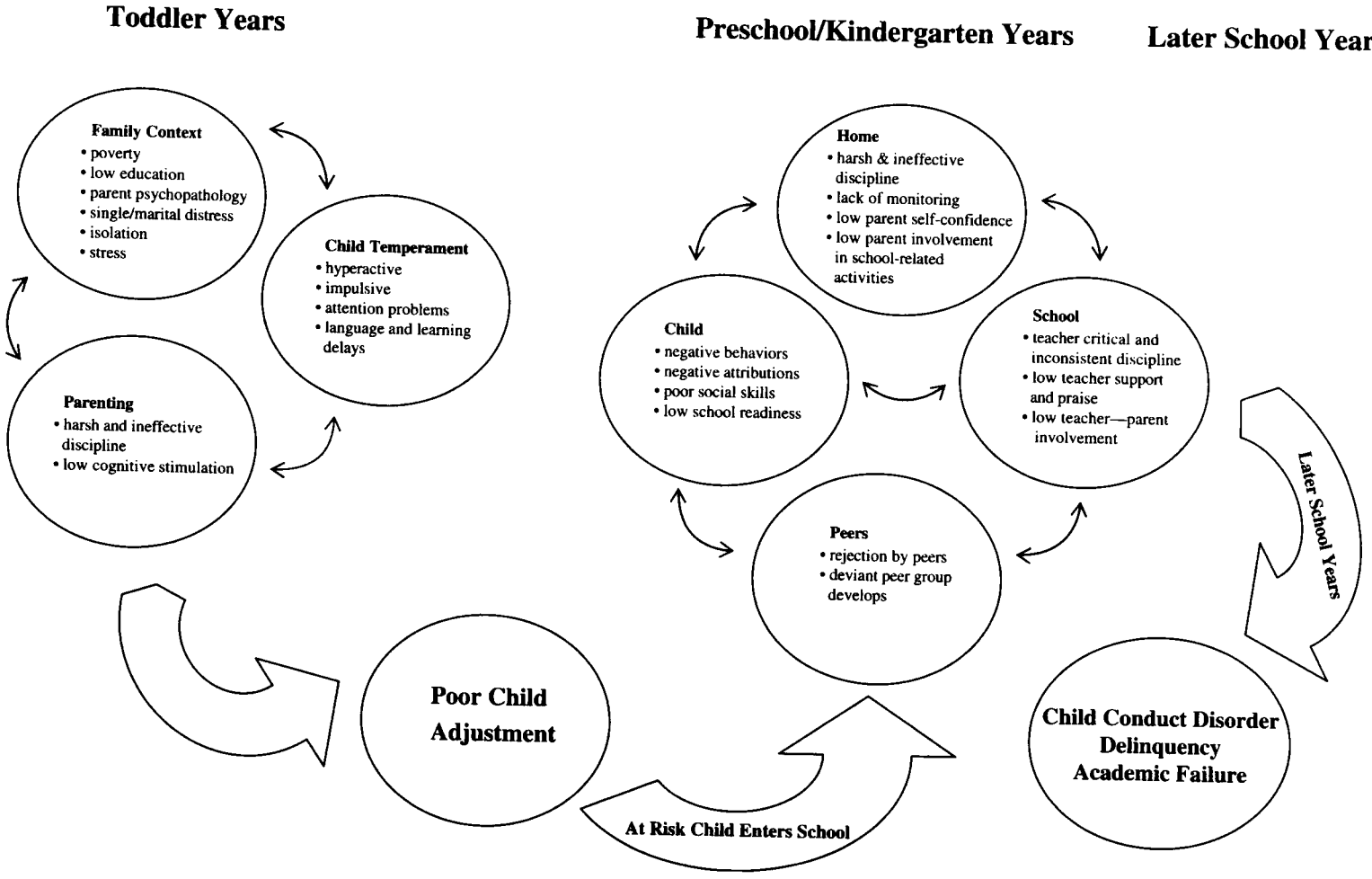


Figure 38.1 Model of linking risk factors: unfolding chain of events in development of conduct disorder.

behavior that has been linked to child conduct problems (e.g., harsh parenting) or in child conduct problems. Programs were also only included if they were replicable by others (e.g., programs are well described using manuals or other treatment guidelines). Table 30.1 presents a summary of included parent programs.

Cognitive Behavioral Parent Training Programs for Children with Conduct Problems (Ages 2–7 Years)

Parent training programs based on cognitive social learning theory can counteract the *parent and family risk factors* by helping parents to develop positive relationships with their children and by teaching them to use non-violent discipline methods that reduce children's conduct problems and promote their self-confidence, prosocial behaviors, problem-solving skills, and academic success. These programs can also help parents to become actively involved in school and to promote parent–teacher communication.

Parent training content

Most parent training programs draw extensively from the pioneering work of Patterson and Reid (Patterson, 1974; J. B. Reid, Taplin, & Loeber, 1981) and Connie Hanf (Hanf, 1970; Hanf & Kling, 1973). In these approaches, parents are guided to increase their positive interactions with their children through the use of child-directed activities, praise, and other rewards, while ignoring mild inappropriate behavior. Parents are also taught to set clear and predictable limits, use warnings, give appropriate consequences (loss of privileges, Time-Out), monitor effectively, and use problem-solving strategies with children.

Parent training process

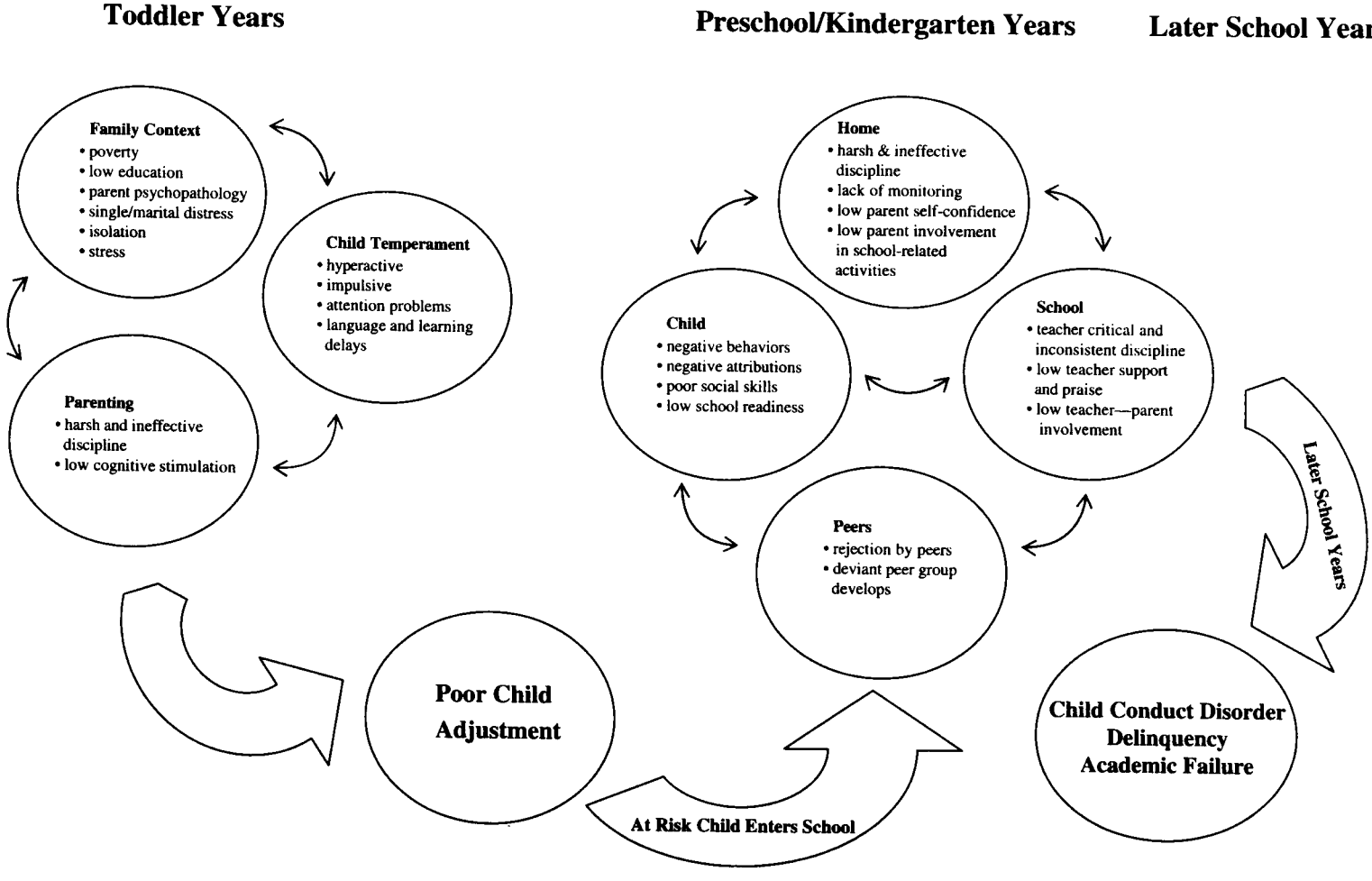
A clinically sophisticated therapeutic approach is needed when conducting parent training. Therapists must be supportive, caring, and demonstrate genuine understanding of what it is like to be a parent of a child with behavior problems (Patterson & Chamberlain, 1994; Webster-Stratton, 1996). Therapists must also provide adequate structure to the therapy process (Alexander & Parsons, 1982; Alexander, Waldron, Newberry, & Liddle, 1988). They must be an effective "coach" – educating, supporting, and problem-solving difficult issues and exploring resistance, all with a high level of sensitivity, compassion, and understanding of child development principles (Webster-Stratton & Herbert, 1994). They must be able to draw the parents into the collaborative process of developing solutions together (Cunningham, Davis, Bremmer, & Dunn, 1993). Effective therapists also engage parents in role-playing new parenting skills and practicing at home (Knapp & Deluty, 1989).

Therapists working with parents must also be skilled at responding to a range of non-parenting issues, because it is likely that up to one-third of their time spent with

Table 30.1 Summary of empirically validated prevention programs for young children (0–8 years) that are designed to prevent later development of substance abuse, violence, and delinquency: parent- and family-focused interventions

Program type and name	*Age of children*	*Target and format of intervention*	*No. of hours*	*Populations studied*		*Child outcome*
				Selective intervention (S)	*Indicated intervention (I)*	
Home visiting (Barnard et al., 1988; Kitzman, 1997; Olds et al., 1997)	Prenatal and infants	• Individual parent education	60–90 min., every other week during pregnancy until child age 2 years	X		↓ Child arrests at 15 and ↓ Child injuries
Living with Children (Patterson, 1975; Patterson et al., 1982)	3–12 years	• Family skills training	15–20 hours per family		X	↓ Conduct problems
Helping the Non-compliant Child (Forehand & MacMahon, 1981)	3–8 years	• Individual parent skills training	6–12 hours per family		X	↓ Non-compliance
Parent–Child Interaction Therapy (Eyberg & Boggs, 1989; Schuhmann et al., 1998)	2–6 years	• Individual parent and child training	14 hours per family		X	↓ Conduct problems

Synthesis training (Wahler et al., 1993)	5–9 years	• Individual parent skills training	36 1-hour sessions/ family over 9 months		X	↓ Aversive behaviors
Positive Parenting Program (Triple P) (Sanders, 1992)	7–14 years	• Individual parent skills training and • Self-administered	6–12 hours per family		X	↓ Conduct problems
Incredible Years Parenting Program (Webster-Stratton, 1982a, 1982b, 1990a)	2–8 years	• Group parent training and • Self-administered	20–44 hours per group (12–14)	X	X	↓ Child conduct problems
Community-based program (Cunningham et al., 1995)	2–5 years	• Large group parent training	24 hours per group (18–28)	X	X	↓ Behavior problems
DARE to be You (Miller-Heyl et al., 1998)	2–5 years	• Group parent training	20–4 hours per group	X		↓ Oppositional behavior
Focus on Families (Catalan & Haggerty, 1999)	7–11 years	• Group parent training and home visits	53 hours	X		↓ Parental use of drugs



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parents may be focused on issues other than parenting (Olds, Eckenrode, & Henderson, 1997). Intervention strategies designed specifically to address marital difficulties, depression, anger management, and social isolation have all been shown to improve parental attendance (Prinz, Blechman, & Dumas, 1994) as well as the effectiveness of parent training for families experiencing these parenting problems (Dadds, Schwartz, & Sanders, 1987; Wahler, Cartor, Fleischman, & Lambert, 1993; Webster-Stratton, 1994). Although not all parents will need to address these issues, the ability to integrate these aspects into the therapy process clearly enhances the effectiveness of parenting interventions.

Empirically supported programs: individual family format

Living with Children. One of the first parent training programs for treating children with conduct disorders (age 6 and up) was developed by Patterson, Reid and colleagues at the Oregon Social Learning Center (Patterson, 1976). A therapist meets individually with parents to train them in five main management areas: tracking, positive reinforcement, discipline, monitoring, and problem solving. Marital and other issues are addressed as they arise. The length and course of treatment varies according to the need, with an average of 15–20 hours of therapy per family.

The first randomized controlled trial evaluating this approach compared it to usual eclectic approaches offered in applied mental health settings (Patterson, Chamberlain, & Reid, 1982). Children of parents who received the parent training exhibited significantly fewer problems than those whose families received usual care. Other researchers have evaluated variations on this program, including some treatment modifications (Sayger, Horne, Walker, & Passmore, 1988) and work with divorcing mothers and sons (Forgatch & DeGarmo, 1999).

Helping the Non-compliant Child. This individual parent training program, designed to treat non-compliant children age 3–8, was developed by Hanf (Hanf & Kling, 1973) and later modified and evaluated by McMahon and Forehand (Forehand, Steffe, Furey, & Walley, 1983). Parents are taught a series of skills, including non-directive play, contingent praise and attention, how to deliver clear commands, and to use Time-Out. Experimental studies of this approach have demonstrated improvements in children's compliant behavior compared with a control group (e.g., Peed, Roberts, & Forehand, 1977). The effectiveness of this intervention has been enhanced by additional parent training components: training in the principles upon which the management strategies are based (McMahon, Forehand, & Griest, 1981); self-control training for parents (Wells, Forehand, & Griest, 1980); and problem solving for single mothers on non-parenting issues (Pfiffner, Jouriles, Brown, Etscheidt, & Kelly, 1990). A long-term follow-up study compared twenty-six children (age 2–7) who received treatment with matched community controls. No differences were found between the children with early conduct problems and the community group, indicating that treatment effects were maintained (Long, Forehand, Wierson, & Morgan, 1994).

Parent–Child Interaction Therapy. Parent–Child Interaction Therapy (PCIT), developed by Eyberg (Schuhmann, Foote, Eyberg, Boggs, & Algina, 1998), is another treatment program for young children (2–6) with conduct problems, also derived from Hanf's child-directed play (Hanf & Kling, 1973). Treatment is offered to individual parent–child dyads using bug-in-the-ear coaching, in which the parent wears a small microphone in his or her ear while playing with his or her child and the therapist coaches through a one-way mirror. This treatment (Eyberg, Boggs, & Algina, 1995) is an integration of traditional play therapy and current behavioral thinking about child management. While the importance of behavior management is maintained, skills for child-directed play (describe, reflect, imitate, praise) are also a major focus of intervention. After learning child-directed interaction play (CDI), which fosters a positive parent–child relationship, parents are taught parent-directed interaction (PDI), which focuses on using clear, direct commands, and imposing consistent consequences for misbehavior (Eisenstadt, Eyberg, McNeil, Newcomb, & Funderburk, 1993). Treatment ends when parents have mastered the skills, presenting problems have been resolved, and the child no longer meets the *Diagnostic and Statistical Manual of Mental Disorders* criteria for oppositional defiant disorder (ODD).

Einsenstadt and colleagues (1993) evaluated the effectiveness of each stage of PCIT with twenty-four families of young children with behavior problems. Results showed significant improvements in children's conduct problems and positive interactions with parents (Eyberg & Boggs, 1989; Eyberg et al., 1995; Hembree-Kigin & McNeil, 1995) that were maintained one to two years later (Hood & Eyberg, 2003). Other studies showed generalization to the school setting (Funderburk et al., 1998; McNeil et al., 1991) and improvements three to six years later (Hood & Eyberg, 2003).

Synthesis training. Synthesis training was specifically designed for socio-economically disadvantaged, stressed, and depressed mothers (Wahler et al., 1993). This model was developed to address stresses outside of the parent–child relationship that impact mothers' ability to cope with childrearing challenges. Mothers are taught to deal effectively with child issues by learning to discriminate between child-specific and other life stressors. The goal is to help the parent become sensitive to the differences in these situations by first exploring their similarities.

In an evaluation of this approach, families of twenty-three children were randomly assigned to parent training only, parent training and synthesis training, or parent and synthesis training plus friendship liaison (e.g., mother brought a close friend). Mothers attended weekly sessions spread over nine months. Mothers who received synthesis training exhibited significantly fewer indiscriminant reactions to their children, and, by follow-up, their aversive behavior had also improved, compared with those who received parent training only. The addition of a close friend did not impact the outcome (Wahler et al., 1993).

Positive Parenting Program (Triple P). Another individual, family-based approach to parent training is the Triple P (Sanders & Dadds, 1993). Parents are taught to give descriptive praise and other reinforcement for appropriate behavior, as well as a correction

procedure, including Time-Out, for certain deviant behaviors. Sessions combine parent–child interaction with parent–therapist feedback and discussion. Six sessions are devoted to managing child behavior at home, three sessions focus on managing misbehavior in public, and two sessions address partner support and problem solving.

A randomized controlled trial treated the families of children with behavior problems with one of two versions of the above intervention. One version included the "partner support training" sessions, and one omitted these sessions. Both treatment approaches resulted in short-term improvements in children's behavior for all families. At a four-month follow-up, families with high discord only maintained these gains if they had received the partner support training. Families with low discord maintained gains in both treatment conditions (Dadds et al., 1987). The Triple P has also been evaluated in a randomized controlled study (Sanders, Markie-Dadds, Tully, & Bor, 2000) as a self-administered program for families living in rural Australia. Families read the book *Every Parent: A Positive Approach to Children's Behavior* (Sanders, 1992) and receive six weekly telephone consultation sessions with a therapist. Parents receiving the self-administered parent training reported significant reductions in their child's conduct problems compared to a waiting-list control group (Connell, Sanders, & Markie-Dadds, 1997).

Empirically supported programs based on group format

Two of the programs reviewed above have been adapted for use in group format. Both have been evaluated in randomized controlled trials, showing that the group format produced significant changes in parent and child behavior compared with controls. One trial (Christensen, Johnson, Phillips, & Glasgow, 1981) evaluated a group-based version of Living with Children (Patterson & Guillon, 1968). A second trial (Pisterman, McGrath, Firestone, & Goodman, 1989) evaluated a group-based version of Helping the Non-compliant Child (Forehand & McMahon, 1981). Additionally, there are several parent programs, described below, that were specifically designed to be delivered in group format.

The Incredible Years (IY) Parenting Series. This series, developed by Webster-Stratton, is delivered in a group format and includes child behavior management training as well as other cognitive behavioral and emotional approaches such as mutual problem-solving strategies, self-management principles, and positive self-talk. This content is embedded in a relational framework including parent group support and a collaborative relationship with the group leader. There are two versions of the Incredible Years BASIC program, one for preschool children (ages 2–6 years) and one for early school-age children (ages 5–10 years). The content of both versions utilizes videotape examples to foster group discussion about such matters as child-directed play skills involving parent coaching in social skills, emotion language and problem solving, differential attention, encouragement, praise, effective commands, Time-Out, consequences, monitoring, and problem solving. The school-age program adds training in ways to support children's academic skills such as reading and homework activities. The BASIC program lasts for twelve to

fourteen weeks (2–2½ hours per week). A supplemental ADVANCED parenting program (Webster-Stratton, 1990b) was developed to address specifically a number of life stressors (depression, marital discord) in greater depth. This ADVANCED program teaches parents to cope with upsetting thoughts and depression, to give and get support from others, and to communicate and problem solve with adults. This additional ten- to fourteen-week program enhances the effects of BASIC by promoting children's and parents' conflict management skills and self-control techniques (Webster-Stratton, 1994). Recommended treatment for children with conduct problems is the combination of the BASIC plus the ADVANCED programs (twenty-four weeks total).

The efficacy of the IY parent program as a treatment program for children (ages 3–8 years) with conduct problems has been demonstrated by the program developer in six published randomized trials (Webster-Stratton, 1981, 1982a, 1982b, 1984, 1990a, 1994; Webster-Stratton & Hammond, 1997; Webster-Stratton, Reid, & Hammond, 2004). The program has been replicated by independent investigators with families of children with conduct problems (Scott, Spender, Doolan, Jacobs, & Aspland, 2001; Spaccarelli, Cotler, & Penman, 1992; Taylor, Schmidt, Pepler, & Hodgins, 1998). Two of these replications were "effectiveness" trials: that is, they were conducted in applied mental health settings with therapists who worked at the center (rather than with research therapists) (Taylor & Biglan, 1998). The Taylor study found that parents who received the IY group parenting program were more satisfied with service and felt that it was more suited to the unique problems they were facing than did the families who received eclectic and flexible individual therapy.

The BASIC parent program has also been evaluated as a prevention program with low-income, primarily minority, Head Start families (Miller & Rojas-Flores, 1999; Webster-Stratton, 1998; Webster-Stratton, Reid, & Hammond, 2001). All studies found that, following intervention, experimental mothers were more consistent and less harsh than control mothers. Their children also showed fewer behavior problems. These results were maintained at one-year follow-up. The program strengthened parenting skills and reduced behavior problems with low-income African-American mothers of toddlers in Chicago child care centers (Gross, Fogg, Webster-Stratton, Garvey, & Grady, 2003).

The IY parent program has also been shown to be effective as a self-administered program, in two randomized control studies (Webster-Stratton, 1990a; Webster-Stratton, Kolpacoff, & Hollinsworth, 1988).

Coping Skills Parenting Program. Another group-based parenting program for parents of young children is the Coping Skills Parenting Program developed by Charles Cunningham (Cunningham, Bremner, & Boyle, 1995). The curriculum includes problem solving, attending to and rewarding prosocial behavior, transitional strategies, when–then strategies, ignoring, disengaging from coercive interactions, advanced planning for difficult situations, and Time-Out. Mixed groups of parents of diagnosed and typically developing children meet weekly for twelve sessions. The program uses a coping problem-solving model in which parents view videotape models of ineffective parenting strategies for dealing with common child management problems and then generate solutions. Leaders model solutions suggested by participants, and parents role-play the solutions and set

homework goals. This community program was evaluated in a randomized controlled trial, comparing it to individual family parent training (with similar content) offered at a clinic or to a no-treatment control. Native English speakers and any family whose children exhibited moderate behavior problems were equally likely to participate in the groups or the clinic-based training. However, families for whom English was a second language and families with a child exhibiting severe problems were more likely to participate in the group format. Families who attended the parenting groups reported significantly greater improvement in child behavior post-test and after a six-month follow-up. The parenting groups were significantly less expensive than the clinic-based intervention offered to the same number of families.

DARE to be You. This is a twelve-week group prevention program for parents of 2- to 5-year-old children in high-risk families, designed to promote parents' self-efficacy, effective childrearing strategies, understanding of developmental norms, social support, and problem-solving skills. Along with the parent group, there are ten parent–child activity sessions to practice session objectives. The program has been evaluated in a randomized control design with a low-income population and has been replicated with multi-ethnic populations (Ute Mountain Ute, Hispanic, Anglo). Parents reported significant changes in self-appraisals, democratic childrearing practices, and children's oppositional behavior (Miller-Heyl, MacPhee, & Fritz, 1998).

Focus on Families. Focus on Families is another group parenting program, designed specifically for recovering heroin addicts currently receiving methadone treatment. Topics include: family goal setting, relapse prevention, family communication skills, family management skills, creating family expectations about drugs and alcohol, teaching children skills, and helping children succeed in school. A randomized controlled trial evaluation revealed positive effects on parenting practices, increased coping ability for parents, and fewer relapses in using illegal drugs (Hawkins, Catalano, & Miller, 1992).

Summary of Parent-Focused Interventions

Individual family-based, group-based, and self-administered parent training programs have been shown to improve parenting practices and reduce conduct problems in children. Generalization of behavior improvements from the clinic setting to the home over reasonable follow-up periods (one to four years) and to untreated child behaviors has also been demonstrated (Taylor & Biglan, 1998; Webster-Stratton & Hammond, 1990). Studies of children with conduct problems typically find that approximately two-thirds of children show behavior in the normal range on standardized measures following family/parent intervention (Webster-Stratton, 1990c; Webster-Stratton, Hollinsworth, & Kolpacoff, 1989). Despite these promising findings, there is mixed evidence on generalization of improvements from home to school; improvements in the child's behavior at home are not necessarily reflected in improved behavior according to teachers' reports,

particularly if teachers are not involved in the intervention (Taylor & Biglan, 1998). Characteristics of those families whose children fail to improve or fail to improve with parent training programs include considerable marital discord, high negative life stress, depression, and severe poverty (Webster-Stratton & Hammond, 1990, 1999).

Because of these findings, broader-based treatment approaches that include attention to interpersonal parent issues (e.g., depression and marital conflict) and family stressors by offering training in communication, anger management, and problem solving have demonstrated modest but significant improvements over and above what can be gained from parent training, which strictly focuses on parent skills.

Multi-focused Interventions: Combining Parent Training with Classroom Intervention

Historically, parent training has not been seen by school personnel as an essential element in school service delivery. However, school-based programs have several advantages over traditional mental health settings. First, school-based programs are ideally placed to strengthen the parent–teacher–child links. Second, offering parent interventions in schools eliminates the stigma and some of the practical barriers (e.g., transportation, insurance, child care) that can be associated with traditional mental health services. Third, preventive school programs can be offered in early grades before children's minor behavior problems have escalated into severe symptoms that require referral and extensive clinical treatment. A final advantage of interventions delivered in school is the sheer number of high-risk families and children who can be reached at comparatively low cost. Mounting evidence from several randomized control, longitudinal prevention programs shows that multimodal (parent–child–teacher) interventions delivered through schools can significantly lower later delinquency, substance abuse, and school adjustment problems. Because these interventions were offered as complete intervention packages, behavior change cannot be attributed to a single treatment component; therefore they are included here as multi-focused interventions. See Table 30.2 for a summary.

First Step

This school-based selective prevention program (Walker et al., 1998) is designed for at-risk kindergarten children with early signs of antisocial behavior patterns. This program combines the CLASS program (described below) for acting-out children (Hops et al., 1978), with a six-week (one hour per week) home-based parenting program in which parents are taught to provide adequate monitoring and reinforcement to build child social competencies. The CLASS program (Hops et al., 1978) is a "game" played every day at school for a month, initially for 20 minutes per day, and gradually expanding to the whole day. During the first five days, the consultant visits the classroom and sits beside the child to constantly monitor on-task behavior using a card signal. Then the teacher takes over the management of the card system. When the child receives enough points, the entire

Table 30.2 Summary of empirically validated prevention programs for young children (0–8 years) that are designed to prevent later development of substance abuse, violence, and delinquency: multi-focused interventions

Program type and name	*Age of children*	*Target and format of intervention*	*No. of hours*	*Populations studied*			*Child outcome*
				Universal intervention (U)	*Selective intervention (S)*	*Indicated intervention (I)*	
First Step (CLASS) (Walker et al., 1998)	5 years	• Home-based parent skills training+ • Program consultants+ • Individual child training in class	6 weeks, 1 hour per week 2½ hours daily for 3 months (50–60 hours)			X	↓ Aggression, ↑ Academic engagement
Montreal Program (Tremblay et al., 1995)	7–9 years	• Lunchtime child social skills peer training • Home-based individual parent skills training	9 sessions 1st year; 10 sessions 2nd year 17 sessions over 2 years			X	↓ Delinquency at age 15, less fighting at age 12
Fast Track (Conduct Problems Prevention Group)	6–12 years	• Classroom-based skills training (U) • Individual home-based for parents (S & I) • Group parent training (S & I) • Tutoring and social skills training for children (S & I)	6 years	X	X	X	↓ Conduct problems

Linking the Interests of Family and Teacher (LIFT) (Reid et al., 1999)	7–11 years	• Group parent training at school (S) • Classroom-based child skills training (U) • Playground program	Once a week, 6 weeks 20 1-hour sessions twice a week	X			↓ Physical aggression
Seattle Social Development Project (Hawkins & Weiss, 1985)	7–11 years	• Academic, social skills, and problem-solving training • Teacher training • Optional parent skills training	1st–5th grades 1st–3rd grades	X			↓ Violence at age 18 ↓ Aggression
Incredible Years Teacher Training (Webster-Stratton et al., 1999)	4–8 years	• Group teacher training (U) • Group parent training (S & I) • Small group child training (I)	36–50 hours, for children, teachers, and parents	X	X	X	↓ Classroom aggression with peers and teachers ↓ Conduct problems at home

class wins a prize. Three randomized controlled trials have shown that this program (without the parent component) results in significantly higher levels of appropriate behavior in the classroom, and that benefits maintain a year later with a new teacher (Hops et al., 1978; Walker, Retana, & Gersten, 1988). In a randomized evaluation of First Step (CLASS plus the six-week parent program), forty-six high-risk kindergartners were randomly assigned to the intervention or wait-list control. One year later, intervention students were significantly more adapted, more engaged, and less aggressive than controls. Follow-up results indicated that effects lasted over time (Epstein & Walker, 1999).

The Montreal Longitudinal Experimental Study

This school-based prevention program for high-risk boys includes classroom social-cognitive skills training based on the work of Shure and Spivack (1982) and a home-based parent training program based on the work of the OSLC (Patterson, Reid, Jones, & Conger, 1975). Tremblay and colleagues (Tremblay et al., 1996; Tremblay, Pagani, Masse, & Vitaro, 1995; Tremblay et al., 1992) identified 366 disruptive boys at age 6, and randomly assigned them to an experimental group that received a school-based small-group social skills program or a control condition. Coaching, peer modeling, role-playing, and positive reinforcement methods were used to teach anger management and peer problem solving. Parents were offered home-based parent training once every three weeks over a two-year span. (The average number of sessions was 17.4.) Follow-up when children were 12 showed that boys in the experimental condition had higher academic achievement, had committed less burglary and theft, and were less likely to get drunk or be involved in fights than controls. These effects increased as follow-up period lengthened.

Fast Track

This comprehensive, multi-component program provided continuous services to first- to fifth-grade children exhibiting aggressive behaviors. The six-year intervention included a classroom management component, socio-cognitive skills training, emotional regulation skills training (Kusche & Greenberg, 1994), academic tutoring, home visiting, parent–child relationship enhancement, and parent training (based on the parent programs of Forehand & McMahon and Webster-Stratton). Also included in this intervention were weekend friendship enhancement groups. Mid-intervention data at one and three years showed reductions in conduct problems and special education resource use (Conduct Problems Prevention Research Group, 1999a, 1999b, 1999c).

Linking the Interests of Families and Teachers (LIFT)

Linking the Interests of Families and Teachers (LIFT) is a school-based universal prevention program, developed by John Reid and colleagues, for elementary-school-aged children and their families. Two versions of the program are available: the first is tailored to

meet the needs of children and their families as they begin elementary school; the second is tailored for the transition to middle school. The core of the program is a six-week parent training that promotes consistent and effective parental discipline techniques as well as close and appropriate supervision. This is combined with classroom-based small-group interpersonal skills training program (ten weeks, total of 20 hours). During recess, a version of the Good Behavior Game (Kellam, Ling, Merisca, Brown, & Ialongo, 1998) is used to encourage the use of positive skills during unstructured activities (children receive credit for good behavior toward class rewards). A controlled study of LIFT showed post-intervention reduction of playground aggression, improved classroom behavior, and reductions in maternal criticisms at home (J. B. Reid, Eddy, Fetrow, & Stoolmiller, 1999).

Parent programs that include teacher training

To promote students' social and academic competence and reduce levels of aggressive and antisocial behavior, teachers must be well trained in effective classroom management strategies. Integrated school-wide approaches that provide consistent classroom discipline plans and individualized behavior plans for children with conduct problems can be highly effective (Cotton & Wikelund, 1990; Gottfredson, Gottfredson, & Hybl, 1993; Knoff & Batsche, 1995). Programs that train teachers in classroom management strategies have consistently demonstrated short-term improvements in disruptive and aggressive behavior in the classroom for approximately 78% of disruptive students (Stage & Quiroz, 1997).

The Seattle Social Development Project. This preventive intervention combines teacher and parent training and is offered to all families through the public schools (Hawkins, Catalano, Morrison et al., 1992). Teachers are trained in proactive classroom management, interactive teaching, and cooperative learning. First-grade teachers were also trained to implement the ICPS curriculum developed by Shure and Spivack (1982). In the first and second grades, the "Catch 'Em Being Good" program was offered to parents. The program targets improved parental monitoring, clear parental expectations, positive reinforcement, and consequences for misbehavior. The program evaluation consisted of 643 students (first- to- fifth-graders) from high crime areas in Seattle. Schools were assigned to intervention or control conditions. The six-year follow-up (Hawkins, Catalano, Kosterman, Abbott, & Hill, 1999) with children who received the full school-based intervention (i.e., started in first grade and received all five years) indicated that intervention students reported fewer violent delinquent acts, lower first drinking age, less sexual activity, and fewer pregnancies by 18 years, and better school achievement and bonding.

Incredible Years (IY) Parents and Teachers Series. In a randomized control prevention study in Head Start, Webster-Stratton and colleagues (2001) evaluated the effects of the IY Teacher Training program combined with the IY Parenting program. Head Start class-

rooms were randomly assigned to intervention or control conditions (272 mothers and 61 teachers participated). Parents received the BASIC parent training, and all teachers received six days of training. The teacher training focused on classroom management skills, relationship building with students and parents, and promotion of social and emotional competence in the classroom. The positive parenting results found in a prior prevention study were replicated (Webster-Stratton, 1998). In addition, intervention teachers promoted more parent involvement and positive classroom atmosphere and were more positive and less harsh than control teachers. Students in the intervention classrooms exhibited significantly less non-compliance and physical aggression than students in control classrooms. Intervention children were more engaged, more socially competent, and had better school readiness than control children. Most of these improvements were maintained one year later (Webster-Stratton et al., 2001).

This same teacher training program was evaluated for children (4–8 years old) with diagnosed conduct problems (Webster-Stratton et al., 2004). Participating teachers were observed to use fewer inappropriate and harsh discipline strategies and to be more nurturing and positive than non-intervention teachers. In conditions where families received more than one treatment (e.g. parent + teacher training, or child + teacher training), significant changes occurred across more domains (i.e., parent, child, peer relationships, and teacher) than conditions where only one treatment was delivered. At the two-year follow-up, teacher training added significantly to the parent and child training in terms of children's school functioning (M. J. Reid, Webster-Stratton, & Hammond, 2003). Two years after treatment, significantly more children from the teacher training conditions were in the normal range according to teacher report. These data suggest that intervention across multiple domains (teachers, parents, and children) is beneficial to children who have pervasive conduct problems.

Key Features of Effective Programs

There are several excellent literature reviews indicating that cognitive-behavioral interventions are helpful for prevention and treatment of conduct disorders (Brestan & Eyberg, 1998; Taylor & Biglan, 1998; Taylor, Eddy, & Biglan, 1999). These reviews can be used to evaluate the appropriateness of particular parenting programs for a target population. A number of key program elements can be pulled from the empirically validated programs reviewed above: (1) focus on skills enhancing and participant strengths (not deficits), (2) broad-based content that includes cognitive, behavioral, and affective components, (3) at least 20 hours of intervention, (4) collaborative process and delivery by skilled therapists, (5) use of performance training methods (e.g., videotape methods, live modeling, role-play or practice exercises, weekly home practice activities) rather than didactic lecture format, (6) promotion of parent–teacher partnerships, (7) sensitivity to barriers for low socio-economic families and provisions to overcome these barriers (child care, transportation, easily accessible intervention location), and (8) empirical validation in control and comparison group studies that use multiple assessment methods and provide follow-up data.

Summary of Effective Parent Interventions for Children Ages 2–7 Years

As demonstrated by the existing research, effective interventions for at-risk children or children exhibiting conduct problems may involve several domains of risk factors. Parent intervention continues to be the single most effective avenue for preventing conduct problems and promoting social competence in young children. These parent programs are particularly effective when they address not only child behavior management training, but also broader parenting and life-stress issues (e.g., parent communication, problem solving, stress management, collaboration with schools). In addition, as indicated by the above review, parent programs may be enhanced by interventions that offer additional components delivered to teachers or the children themselves. This review focuses on programs for children ages 2–7 years that have been shown to be effective using rigorous evaluation standards. Given the powerful potential of these programs, prevention and early intervention staff should be trained in empirically validated interventions (Brestan & Eyberg, 1998) and should consider strategies to effectively integrate these into a mental health prevention plan for children. Services that are flexible in format (individual, group, or self-administered treatment) and readily available (offered through mental health agencies, schools, churches, and community centers) will allow for dissemination of these programs to families that are at high risk because of life circumstances as well as to families who have a child with risk factors such as attention deficit hyperactivity disorder, peer and conduct problems, and developmental delays.

Policy Implications: Principles for Implementing Empirically Supported Prevention Programs

As research begins to guide prevention services, there are a number of principles that can guide the selection and implementation of empirically supported interventions. The application of these principles will bridge the fields of science and practice. First, prevention/intervention is most effective if it is implemented early. By age 3, high levels of conduct problems place children at substantially elevated risk of later problems (Olweus, 1978). Additionally, family-based intervention is more effective when children are younger (Dishion, Patterson, & Kavanagh, 1992). Children older than 8 years are less responsive to intervention and their behavior problems are more likely to become chronic (Bullis & Walker, 1994; Francis et al., 1991).

Second, programs should be developmentally based and target reductions in risk factors (e.g., harsh parent or teacher discipline practices) as well as increase protective factors (i.e. children's social, emotional, and academic competence) (Mrazek & Haggerty, 1994). This comprehensive model could be the single most important step in preventing and reducing conduct problems before they "cascade" (Patterson, Reid, & Dishion, 1992) across developmental periods and result in cumulating and intensifying risk factors.

Third, intervention should be targeted to reach populations that are at elevated risk for the development of child behavior problems. Such populations include teenage single parents, families living in poverty, foster parents, divorcing parents, and families with a child exhibiting early conduct problems. A recent cost–benefit analysis identified behavioral parent training offered to families with a child exhibiting early conduct problems as one of the most cost-effective ways to reduce crime (Greenwood, Model, Rydell, & Chiesa, 1996).

Fourth, prevention is best seen on a continuum of service with treatment. In practice, applied settings would be best served if their prevention and early intervention services reflected this continuum, rather than creating artificial distinctions between them. An enlightened application of this model includes the recognition that the most effective prevention of one problem (e.g., delinquency or drug abuse) may be the treatment of another earlier problem (e.g., early conduct problems). When making decisions about what programs would best serve a community, one must consider which prevention and early intervention services are already available. Rather than creating separate service providers who offer prevention, and others who offer highly similar early intervention, we should make sure that the continuum of prevention and early intervention services works effectively.

Fifth, one of the most consistent lessons learned in the dissemination of empirically validated programs is that implementing them effectively requires a considerable amount of work and skill. In fact, attempts to replicate effective programs with only minimal initial training and little ongoing consultation with the program developers have often failed to achieve the effects obtained in the published studies (Kitzman, Cole, Yoos, & Olds, 1997). As a result, some programs have developed rigorous training and certification processes to ensure that the interventions are offered with fidelity when disseminated.

Sixth, one of the most effective ways to facilitate the wide-scale adoption of empirically supported prevention programs is for government agencies and private foundations to fund their dissemination. Biglan and colleagues (Biglan, Mrazek, Carnine, & Flay, 2003) have recommended that the early prevention and intervention community come to a consensus about the minimum level of evidence that programs should have for such dissemination.

Conclusions

The field of prevention/early intervention has made tremendous advances over the past few decades. Much has been learned about treating early-onset conduct problems: the most significant risk factor for delinquency, violence, and substance abuse. Numerous interventions have been developed that can reduce early risk factors and increase protective factors, resulting in a reduction of later conduct problems. The cost of doing this early prevention/intervention far outweighs the costs and risk of a child continuing on a trajectory that leads to delinquency, violence, and substance abuse problems.

Notes

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References

Alexander, J. F., & Parsons, B. V. (1982). *Functional family therapy.* Monterey, CA: Brooks/Cole.

Alexander, J. F., Waldron, H. B., Newberry, A. M., & Liddle, N. (1988). *Family apporaches to treating delinquents.* Newbury Park, CA: Sage.

Barnard, K. E., Magyary, D., Sumner, G., Booth, C. L., Mitchell, S. K., & Spieker, S. (1988). Prevention of parenting alterations for women with low social support. *Psychiatry, 51,* 248–253.

Biglan, A., Mrazek, P. J., Carnine, D., & Flay, B. R. (2003). The integration of research and practice in the prevention of youth problem behaviors. *American Psychologist, 58*(6–7), 443–440.

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.

Bullis, M., & Walker, H. M. (Eds.). (1994). *Comprehensive school-based systems for troubled youth.* Eugene, OR: University of Oregon, Center on Human Development.

Catalano, R. G., Haggerty, K. P., & Fleming, C. B. (1999). *Children of substance abusing parents: Current findings from the Focus on Families Project.* Seattle: University of Washington.

Christensen, A., Johnson, S. M., Phillips, S., & Glasgow, R. E. (1981). Cost-effectiveness in behavioral family therapy. *Behavior Therapy, 11,* 208–226.

Conduct Problems Prevention Research Group. (1999a). Initial impact of the Fast Track prevention trial for conduct problems: I. The high-risk sample. *Journal of Consulting and Clinical Psychology, 67,* 631–647.

Conduct Problems Prevention Research Group. (1999b). Evaluation of the first 3 years of the Fast Track Prevention Trial with children at high risk for adolescent conduct problems. *Journal of Abnormal Child Psychology, 30,* 19–35.

Conduct Problems Prevention Research Group. (1999c). Initial impact of the Fast Track prevention trial for conduct problems: II. Classroom effects. *Journal of Consulting and Clinical Psychology, 67,* 648–657.

Connell, S., Sanders, M. R., & Markie-Dadds, C. (1997). Self-directed behavioral family intervention for parents of oppositional children in rural and remote areas. *Behavior Modification, 21,* 379–408.

Cotton, K., & Wikelund, K. R. (Eds.). (1990). *Schoolwide and classroom discipline.* Portland, OR: Northwest Regional Education Laboratory.

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.

Cunningham, C. E., Davis, J. R., Bremmer, R., & Dunn, K. W. (1993). Coping modeling problem-solving versus mastery modeling: Effects on adherence, in-session process, and skill acquisition in a residential parent-training program. *Journal of Consulting and Clinical Psychology, 61*, 871–877.

Dadds, M. R., Schwartz, M. R., & Sanders, M. R. (1987). Marital discord and treatment outcome in behavioral treatment of child conduct disorders. *Journal of Consulting and Clinical Psychology, 16*, 192–203.

Dishion, T. J., Patterson, G. R., & Kavanagh, K. (1992). *An experimental test of the coercion model: Linking theory, measurement, and intervention.* New York: Guilford.

Eisenstadt, T. H., Eyberg, S. M., McNeil, C. B., Newcomb, K., & Funderburk, B. (1993). Parent–child interaction therapy with behavior problem children: Relative effectiveness of two stages and overall treatment outcome. *Journal of Clinical Child Psychology, 22*, 42–51.

Epstein, M. H., & Walker, H. M. (1999). Special education: Best practices and first step to success. In B. Burns, K. Hoagwood, & M. English (Eds.), *Community-based interventions for youth with serious emotional disorders* (pp. 179–197). Oxford: Oxford University Press.

Eron, L. D. (1990). Understanding aggression. *Bulletin of the International Society for Research on Aggression, 12*, 5–9.

Eyberg, S. M., & Boggs, S. R. (1989). Parent training for oppositional-defiant preschoolers. In C. E. Schaeffer & J. M. Brienmeister (Eds.), *Handbook of parent training* (pp. 105–132). New York: Wiley.

Eyberg, S. M., Boggs, S., & Algina, J. (1995). Parent–child interaction therapy: A psychosocial model for the treatment of young children with conduct problem behavior and their families. *Psychopharmacology Bulletin, 31*, 83–91.

Forehand, R. L., Steffe, M. A., Furey, W. A., & Walley, P. B. (1983). Mother's evaluation of a parent training program completed three and one-half years earlier. *Journal of Behavior Therapy and Experimental Psychiatry, 14*, 339–342.

Forehand, R. L., & McMahon, R. J. (1981). *Helping the noncompliant child: A clinician's guide to parent training.* New York: Guilford Press.

Forgatch, M. S., & DeGarmo, D. S. (1999). Parenting through Change: An effective prevention program for single mothers. *Journal of Consulting and Clinical Psychology, 67*(5), 711–724.

Francis, D. J., Shaywitz, S. E., Stuebing, K. K., Shaywitz, B. A., & Fletcher, J. M. (1991). Analysis of change: Modeling individual growth. *Journal of Consulting and Clinical Psychology, 59*, 27–37.

Funderburk, B. W., Eyberg, S. M., Newcomb, K., McNeil, C. B., Hembree-Kigin, T., & Capage, L. (1998). Parent–child interaction therapy with behavior problem children: Maintenance of treatment effects in the school setting. *Child and Family Behavior Therapy, 20*, 17–38.

Gottfredson, D. C., Gottfredson, G. D., & Hybl, L. G. (1993). Managing adolescent behavior: A multiyear, multischool study. *American Education Research Journal, 30*, 179–215.

Greenwood, P. W., Model, K. E., Rydell, C. P., & Chiesa, J. (1996). *Diverting children from a life of crime: Measuring costs and benefits.* Santa Monica, CA: Rand.

Gross, D., Fogg, L., Webster-Stratton, C., Garvey, C. W. J., & Grady, J. (2003). Parent training with families of toddlers in day care in low-income urban communities. *Journal of Consulting and Clinical Psychology, 71*(2), 261–278.

Hanf, C. (1970). *Shaping mothers to shape their children's behavior.* Unpublished manuscript. Portland, OR: University of Oregon Medical School.

Hanf, C., & Kling, J. (1973). *Facilitating parent–child interactions: A two-stage training model.* Portland, OR: University of Oregon Medical School.

Hawkins, J. D., Catalano, R. F., Kosterman, R., Abbott, R., & Hill, K. G. (1999). Preventing

adolescent health-risk behaviors by strengthening protection during childhood. *Archives of Pediatrics and Adolescent Medicine, 153,* 226–234.

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., Catalano, R. F., Morrison, D. M., O'Donnell, J., Abbott, R. D., & Day, L. E. (1992). The Seattle Social Development Project: Effects of the first four years on protective factors and problem behaviors. In J. McCord & R. E. Tremblay (Eds.), *Preventing antisocial behavior: Intervention from birth through adolescence* (pp. 162–195). New York: Guilford.

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

Hembree-Kigin, T. L., & McNeil, C. B. (1995). *Parent–child interaction therapy.* New York: Plenum Press.

Hood, K. K., & Eyberg, S. M. (2003). Outcomes of parent–child interaction therapy: Mothers' reports of maintenance three to six years after treatment. *Journal of Clinical Child & Adoloescent Psychology,* 32(3), 419–429.

Hops, H., Walker, H. M., Hernandez, D., Nagoshi, J. T., Omura, R. T., Skindrug, K., & Taylor, J. (1978). CLASS: A standardized in-class program for acting out children. II. Field test evaluations. *Journal of Educational Psychology, 70,* 636–644.

Kellam, S. G., Ling, X., Merisca, R., Brown, C. H., & Ialongo, N. (1998). The effect of the level of aggression in the first grade classroom on the course and malleability of aggressive behavior into middle school. *Development and Psychopathology, 10,* 165–185.

Kitzman, H. (1997). Effect of prenatal and infancy home visitation by nurses on pregnancy outcomes, childhood injuries, and repeated childbearing: A randomized controlled trial. *Journal of the American Medical Association, 278,* 644–652.

Kitzman, H. J., Cole, R., Yoos, H. L., & Olds, D. (1997). Challenges experienced by home visitors: A qualitative study of program implementation. *Journal of Community Psychology, 25,* 95–109.

Knapp, P. A., & Deluty, R. H. (1989). Relative effectiveness of two behavioral parent training programs. *Journal of Clinical Child Psychology, 18*(4), 314–322.

Knoff, H. M., & Batsche, G. M. (1995). Project ACHIEVE: Analyzing a school reform process for at-risk and underachieving students. *School Psychology Review, 24,* 579–603.

Kusche, C. A., & Greenberg, M. T. (1994). *The PATHS Curriculum.* Seattle, WA: Developmental Research and Programs.

Long, P., Forehand, R., Wierson, M., & Morgan, A. (1994). Does parent training with young noncompliant children have long-term effects? *Behavior Research and Therapy, 22,* 101–107.

McMahon, R. J., Forehand, R., & Griest, D. L. (1981). Effects of knowledge of social learning principles on enhancing treatment outcome and generalization in a parent training program. *Journal of Consulting and Clinical Psychology, 49*(4), 526–532.

McNeil, C. B., Eyberg, S., Eisenstadt, T. H., Newcomb, K., & Funderburk, B. W. (1991). Parent–child interaction therapy with behavior problem children: Generalization of treatment effects to the school setting. *Journal of Clinical Child Psychology, 20*(2), 140–151.

Miller, L. S., & Rojas-Flores, L. (1999). *Preventing conduct problems in urban, Latino preschoolers through parent training: A pilot study.* New York: New York University Child Study Center.

Miller-Heyl, J., MacPhee, D., & Fritz, J. J. (1998). DARE to be You: A family-support, early prevention program. *Journal of Primary Prevention, 18*(3), 257–285.

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

Mrazek, P. J., & Haggerty, R. J. (1994). Illustrative preventive intervention research programs. In

P. J. Mrazek & R. J. Haggerty (Eds.), *Reducing risks for mental disorders: Frontiers for preventive intervention research* (pp. 215–313). Washington, DC: National Academy Press.

Olds, D. L., Eckenrode, J., & Henderson, C. R. (1997). Long-term effects of home visitation on maternal life course and child abuse and neglect: 15-year follow-up of a randomized trial. *Journal of the American Medical Association, 278,* 637–643.

Olweus, D. (1978). *Aggression in the schools: Bullies and whipping boys.* Washington, DC: Hemisphere Press.

Patterson, G. R. (1974). Interventions for boys with conduct problems: Multiple settings, treatments, and criteria. *Journal of Consulting and Clinical Psychology, 42*(4), 471–481.

Patterson, G. R. (1975). *Families: Applications of social learning to family life.* Champaign, IL: Research Press.

Patterson, G. R. (1976). *Living with children: New methods for parents and teachers.* Champaign, IL: Research Press.

Patterson, G. R., & Chamberlain, P. (1994). A functional analysis of resistance during parent training therapy. *Clinical Psychology Science and Practice, 1*(1), 53–70.

Patterson, G. R., Chamberlain, P., & Reid, J. B. (1982). A comparative evaluation of a parent training program. *Behavior Therapy, 13,* 638–650.

Patterson, G. R., DeBaryshe, B. D., & Ramsey, E. (1989). A developmental perspective on antisocial behavior. *American Psychologist, 44*(2), 329–335.

Patterson, G. R., & Guillon, M. E. (1968). *Living with Children: New methods for parents and teachers.* Champaign, IL: Research Press.

Patterson, G. R., Reid, J. B., Jones, R. R., & Conger, R. W. (1975). *A social learning approach to family intervention* (Vol. 1). Eugene, OR: Castalia.

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

Peed, S., Roberts, M., & Forehand, R. (1977). Evaluations of the effectiveness of a standardized parent training program in altering the interaction of mothers and their noncompliant children. *Behavior Modification, 1,* 323–350.

Pfiffner, L. J., Jouriles, E. N., Brown, M. M., Etscheidt, M. A., & Kelly, J. A. (1990). Effects of problem-solving therapy on outcomes of parent training for single-parent families. *Child and Family Behavior, 12,* 1–11.

Pisterman, S., McGrath, P. J., Firestone, P., & Goodman, J. T. (1989). Outcome of parent-mediated treatment of preschoolers with attention deficit disorder with hyperactivity. *Journal of Consulting and Clinical Psychology, 57*(5), 628–635.

Prinz, R. J., Blechman, E. A., & Dumas, J. E. (1994). An evaluation of peer coping skills training for childhood aggression. *Journal of Clinical Child Psychology, 23*(2), 193–203.

Reid, J. B., & Eddy, J. M. (1997). The prevention of antisocial behavior: Some considerations in the search for effective interventions. In D. M. Stoff, J. Breiling, & J. D. Maser (Eds.), *The handbook of antisocial behavior* (pp. 343–356). New York: Wiley.

Reid, J. B., Eddy, J. M., Fetrow, R. A., & Stoolmiller, M. (1999). Description and immediate impacts of a preventive intervention for conduct problems. *American Journal of Community Psychology, 27*(4), 483–517.

Reid, J. B., Taplin, P., & Loeber, R. (1981). A social interactional approach to the treatment of abusive families. In R. B. Stuart (Ed.), *Violent behavior: Social learning approaches to prediction management and treatment* (pp. 83–101). New York: Brunner/Mazel.

Reid, M. J., Webster-Stratton, C., & Hammond, M. (2003). Follow-up of children who received the Incredible Years Intervention for Oppositional-Defiant Disorder: Maintenance and prediction of 2-year outcome. *Behavior Therapy, 34,* 471–491.

Sanders, M. R. (1992). *Every parent: A positive guide to children's behavior.* Sydney: Addison-Wesley.

Sanders, M. R., & Dadds, M. R. (1993). *Behavioral family intervention.* Needham Heights, MA: Allyn and Bacon.

Sanders, M. R., Markie-Dadds, C., Tully, L. A., & Bor, W. (2000). The Triple P-Positive Parenting Program: A comparison of enhanced, standard and self-directed behavioural family intervention for parents of children with early onset conduct problems. *Journal of Consulting and Clinical Psychology, 68,* 624–640.

Sayger, T. V., Horne, A. M., Walker, J. M., & Passmore, J. L. (1988). Social learning family therapy with aggressive children: Treatment outcome and maintenance. *Journal of Family Psychology, 1,* 261–285.

Schuhmann, E., Foote, R., Eyberg, S. M., Boggs, S., & Algina, J. (1998). Parent–child interaction therapy: Interim report of a randomized trial with short-term maintenance. *Journal of Clinical Child Psychology, 27,* 34–45.

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.

Shores, R. E., & Wehby, J. H. (1999). Analyzing classroom social behavior of students with EBD. *Journal of Emotional and Behavioral Disorders, 7,* 194–199.

Shure, M. B., & Spivack, G. (1982). Interpersonal problem-solving in young children: A cognitive approach to prevention. *American Journal of Community Psychology, 10*(3), 341–356.

Snyder, H. (2001). Epidemiology of official offending. In R. Loeber & D. Farrington (Eds.), *Child delinquents: Development, intervention and service needs* (pp. 25–46). Thousand Oaks, CA: Sage.

Spaccarelli, S., Cotler, S., & Penman, D. (1992). Problem-solving skills training as a supplement to behavioral parent training. *Cognitive Therapy and Research, 16,* 1–18.

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., Eddy, J. M., & Biglan, A. (1999). Interpersonal skills training to reduce aggressive and delinquent behavior: Limited evidence and the need for an evidence-based system of care. *Clinical Child and Family Psychology Review, 2*(3), 169–182.

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, CA: Sage.

Tremblay, R. E., Pagani, K. L., Masse, L. C., & Vitaro, F. (1995). A biomodal preventive intervention for disruptive kindergarten boys: Its impact through mid-adolescence. Special Section: Prediction and prevention of child and adolescent antisocial behavior. *Journal of Consulting and Clinical Psychology, 63,* 560–568.

Tremblay, R. E., Vitaro, F., Bertrand, L., LeBlanc, M., Beauchesne, H., Boileau, H., & David, L. (1992). Parent and child training to prevent early onset of delinquency: The Montreal Longitudinal-Experimental study. In J. McCord & R. E. Tremblay (Eds.), *Preventing antisocial behavior: Interventions from birth through adolescence* (pp. 117–138). New York: Guilford.

Wahler, R. G., Cartor, P. G., Fleischman, J., & Lambert, W. (1993). The impact of synthesis teaching and parent training with mothers of conduct disordered children. *Journal of Abnormal Child Psychology, 12,* 425–440.

Walker, H. M., Kavanagh, K., Stiller, B., Golly, A., Steverson, H., & Feil, E. (1998). First step to success: An early intervention approach for preventing school antisocial behavior. *Journal of Emotional and Behavioral Disorders, 6,* 66–80.

Walker, H. M., Retana, G. F., & Gersten, R. (1988). Replication of the CLASS program in Costa Rica. *Behavior Modification, 12,* 133–154.

Webster-Stratton, C. (1981). Modification of mothers' behaviors and attitudes through videotape modeling group discussion program. *Behavior Therapy, 12,* 634–642.

Webster-Stratton, C. (1982a). 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. (1982b). Teaching mothers through videotape modeling to change their children's behaviors. *Journal of Pediatric Psychology, 7*(3), 279–294.

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. (1990a). Enhancing the effectiveness of self-administered videotape parent training for families with conduct-problem children. *Journal of Abnormal Child Psychology, 18,* 479–492.

Webster-Stratton, C. (1990b). *The Incredible Years parent training program manual: Effective communication, anger management and problem-solving (ADVANCE).* Seattle, WA: Incredible Years.

Webster-Stratton, C. (1990c). 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. (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: Lawrence Erlbaum Associates.

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., & Hammond, M. (1999). Marital conflict management skills, parenting style, and early-onset conduct problems: Processes and pathways. *Journal of Child Psychology and Psychiatry, 40,* 917–927.

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. (1999). Marital conflict management skills, parenting style, and early-onset conduct problems: Processes and pathways. *Journal of Child Psychology and Psychiatry, 40,* 917–927.

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

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., Kolpacoff, M., & Hollinsworth, T. (1988). Self-administered videotape therapy for families with conduct-problem children: Comparison with two cost-effective treatments and a control group. *Journal of Consulting and Clinical Psychology, 56*(4), 558–566.

Webster-Stratton, C., Reid, M. J., & Hammond, M. (2001). 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. (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.

Wells, K. C., Forehand, R., & Griest, D. L. (1980). Generality of treatment effects from treated to untreated behaviors resulting from a parent training program. *Journal of Consulting and Clinical Psychology, 9*, 217–219.