The Incredible Years Parents, Teachers, and Children Training Series

A Multifaceted Treatment Approach for Young Children with Conduct Disorders

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OVERVIEW OF THE CLINICAL PROBLEM

The incidence of oppositional defiant disorder (ODD) and conduct disorder (CD) in children is alarmingly high, with reported rates of early-onset conduct problems in young preschool children ranging from 4–6% (Egger & Angold, 2006) and as high as 35% for low-income families (Webster-Stratton & Hammond, 1998). Developmental theorists have suggested that, compared with typical children, early-starter delinquents—that is, those who first exhibit ODD symptoms in the preschool years—have a two- to threefold risk of becoming tomorrow’s serious violent and chronic juvenile offenders (Loeber et al., 1993; Patterson, Capaldi, & Bank, 1991; Snyder, 2001; Tremblay et al., 2000). These children with early-onset CD also account for a disproportionate share of delinquent acts in adulthood, including interpersonal violence, substance abuse, and property crimes. Indeed, the primary developmental pathway for serious CDs in adolescence and adulthood appears to be established during the preschool period.

Risk factors from a number of different areas contribute to child conduct problems, including ineffective parenting (Jaffee, Caspi, Moffitt, & Taylor, 2004), family mental health and criminal risk factors (Knutson, DeGarmo, Koeppel, & Reid, 2005), child biological and developmental risk factors (e.g., attention-deficit disorders, learning disabilities, language delays), school risk factors (Hawkins, Catalano, Kosterman, Abbott, & Hill, 1999), and peer and community risk factors (e.g., poverty and gangs) (Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000; Hawkins et al., 2008). Treatment-outcome studies suggest that interventions for CD are of limited effect when offered in
adolescence, after delinquent and aggressive behaviors are entrenched and secondary risk factors such as academic failure, school absence, and the formation of deviant peer groups have developed (Dishion & Piehler, 2007; Offord & Bennet, 1994). In fact, group-based interventions targeting adolescents with CD may result in worsening of symptoms through exposure to delinquent peers (Dishion, McCord, & Poulin, 1999).

This increased treatment resistance in older CD probands results in part from delinquent behaviors becoming embedded in a broader array of reinforcement systems, including those at the family, school, peer group, neighborhood, and community levels (Lynam et al., 2000). In contrast, there is evidence that the younger a child is at the time of intervention, the more positive the behavioral adjustment at home and at school. For these reasons, The Incredible Years treatment programs were designed to thwart and treat behavior problems when they first begin (infant/toddler through elementary school age) and to intervene in multiple areas through parent, teacher, and child training. It is our belief that early intervention can counteract risk factors and strengthen protective factors, thereby helping to prevent a developmental trajectory to increasingly aggressive and violent behaviors.

CHARACTERISTICS OF THE TREATMENT PROGRAM

To address the parenting, family, child, and school risk factors, we have developed three complementary training curricula, known as The Incredible Years Training Series, targeted at parents, teachers, and children (ages 0–13 years). This chapter reviews these training programs and their associated research.

The Incredible Years Parent Interventions

Goals of the Parent Programs

Goals of the parent programs are to promote parent competencies and strengthen families by

- Increasing positive parenting, self-confidence, and parent–child bonding.
- Teaching parents to coach children's academic and verbal skills, persistence and sustained attention, and social and emotional development.
- Decreasing harsh discipline and increasing positive strategies such as ignoring, logical consequences, redirecting, monitoring, and problem solving.
- Improving parents' problem solving, anger management, and communication.
- Increasing family support networks and school involvement/bonding.
- Helping parents and teachers work collaboratively.
- Increasing parents' involvement in children's academic-related activities at home.

Content of the BASIC Parent Training Treatment Program

In 1980, we developed an interactive, videotape-based parent intervention (BASIC) for parents of children ages 2–7. More recently, we revised and updated this program to
include four separate age range BASIC programs: infant (0–1 years), toddler (1–3 years), 
preschool (3–6 years), and school age (6–13 years). Each of these revised programs 
includes age-appropriate examples of more culturally diverse families, children with 
varying temperaments, and added emphases on social and emotional coaching, problem 
solving, establishing predictable routines, and supporting children’s academic success. The baby program is eight to nine weekly 2-hour sessions with parents and infants. The BASIC toddler–parent training program is usually completed in 12 weekly 2-hour 
sessions while the preschool and school-age programs are 18–20 weekly sessions. The 
foundation of the therapist-led program is video vignettes of modeled parenting skills 
(more than 300 vignettes, each lasting approximately 1–3 minutes) shown to groups 
of eight to 12 parents. The videos demonstrate social learning and child development 
principles and serve as the stimulus for focused discussions, problem solving, and collabor­ 
ative learning. The program is also designed to help parents understand typical child 
development and temperaments.

The BASIC program begins with a focus on enhancing positive parent–child relationships by teaching parents to use child-directed interactive play, academic and perseverance coaching, social and emotional coaching, praise, and incentive programs. Next, parents learn how to set up predictable home routines and rules, followed by learning a specific set of nonviolent discipline techniques, including monitoring, ignoring, commands, natural and logical consequences, and ways to use time-out to teach children to calm down. Finally, parents are taught how they can teach their children problem-solving skills.

Content of the ADVANCE Parent Training Treatment Program

In addition to parenting behavior per se, other aspects of parents’ behavior and personal lives constitute risk factors for child conduct problems. Researchers have demonstrated that personal and interpersonal risk factors such as parental depression, marital discord, lack of social support, poor problem-solving ability, and environmental stressors disrupt parenting behavior and contribute to coercive parent–child interactions and relapses subsequent to parent training. This evidence led us to expand our theoretical and causal model concerning conduct problems, and in 1989 we developed the ADVANCE treatment program, updated in 2008. We theorized that a broader based training model (i.e., one involving helping parents with conflict management issues) would help mediate the negative influences of these personal and interpersonal factors on parenting skills and promote increased maintenance and generalizability of treatment effects.

The content of this 10- to 12-session video program (more than 90 vignettes), which is offered after the completion of the BASIC training program, involves five components:

1. **Personal self-control.** Parents learn to substitute positive self-talk for depressive, angry, and blaming self-talk. Parents learn specific anger management techniques.
2. **Communication skills.** Parents are taught to identify blocks to communication and to learn effective communication skills for dealing with conflict.
3. **Problem-solving skills for adults.** Parents are taught effective strategies for cop-
ing with conflict with spouses, employers, extended family members, and teach­ers.

4. **Teaching children problem solving.** Parents learn to use problem-solving strategies with their children. Parents of older children learn to conduct family meetings.

5. **Strengthening social support and self-care.** Group members learn to ask for support when necessary and to give support to others.

The content of both the BASIC and ADVANCE programs is also provided in the text that parents use for the program: *The Incredible Years: A Trouble-Shooting Guide for Parents of Children Aged 3–8* (Webster-Stratton, 2006).

**Content of the SCHOOL Parent Training Treatment**

In follow-up interviews with parents who completed our parent training programs, 58% requested guidance on school-related issues such as homework, communication with teachers, school behavior problems, and schoolwork. These data suggested a need for teaching parents to access schools, collaborate with teachers, and supervise children's peer relationships. In addition, 40% of teachers reported problems with children's compliance and aggression in the classroom. Clearly, integrating interventions across home and school settings to target school and family risk factors fosters greater between-environment consistency and offers the best chance for long-term reduction of antisocial behavior.

In 1990 we developed an interactive video modeling academic skills training intervention (SCHOOL) as an adjunct to our school-age BASIC program and a school readiness intervention as an adjunct to our preschool BASIC program. These two interventions consist of four to six additional sessions that are offered to parents after completing the BASIC program. For parents of school-age children, these sessions focus on parent-teacher collaboration, ways to foster children's academic readiness and school success through parental involvement in school activities and homework, and the importance of after-school and peer monitoring. For parents of preschool children, the sessions focus on interactive reading skills and ways to promote children's social, emotional, self-regulation, and cognitive skills. Program components include:

1. **Promoting children's self-confidence.** Parents lay the foundation for school success by helping children feel confident about their own ideas and ability to learn.

2. **Promoting children's school readiness, academic success.** Parents prepare their young children for school by facilitating language and reading skills. Parents of school-age children establish a predictable homework routine and learn strategies to support homework success.

3. **Dealing with children's discouragement and learning difficulties.** Parents think about realistic goals for their children, help them persist with difficult tasks, tailor learning tasks to their children's abilities, and use praise, tangible rewards, and academic coaching to motivate and reinforce learning progress at home.

4. **Using teacher–parent conferences to advocate for children.** Parents learn to collaborate with teachers to develop behavior plans that address school difficulties, such as inattention, impulsiveness, noncompliance, social problems, and aggression.
The Incredible Years Teacher Training Intervention

Once children with behavior problems enter school, negative academic and social experiences escalate the development of conduct problems. Aggressive, disruptive children quickly become socially excluded, which leads to fewer opportunities to interact socially and learn appropriate friendship skills. Evidence suggests that peer rejection eventually leads to association with deviant peers. Once children have formed deviant peer groups, the risk for drug abuse and antisocial behavior is even higher.

Furthermore, teacher behaviors and school characteristics, such as low emphasis on teaching social and emotional competence, low rates of praise, and high student-teacher ratio are associated with classroom aggression, delinquency, and poor academic performance. Aggressive children frequently develop poor relationships with teachers and are often expelled from classrooms. In our own studies of children ages 3–7 with conduct problems, more than 50% of the children had been asked to leave three or more classrooms by second grade. Lack of teacher support and exclusion from the classroom exacerbate social problems and academic difficulties, contributing to the likelihood of school dropout.

Goals of the Teacher Training Programs

The goals are to promote teacher competencies and strengthen home–school connections by

- Strengthening teachers’ effective classroom management skills.
- Strengthening teachers’ use of academic, persistence, social, and emotional coaching with students.
- Strengthening positive relationships between teachers and students.
- Increasing teachers’ use of effective discipline strategies.
- Increasing teachers’ collaborative efforts with parents.
- Increasing teachers’ ability to teach social skills, anger management, and problem-solving skills in the classroom.
- Decreasing levels of classroom aggression.

Content of Teacher Training Intervention

The teacher training intervention is a 6-day (or 42-hour) group-format program for teachers, school counselors, and psychologists. Training targets teachers’ use of effective classroom management strategies for dealing with misbehavior; promoting positive relationships with difficult students; strengthening social skills and emotional regulation in the classroom, on the playground, on the bus, and in the lunchroom; and strengthening teachers’ collaborative process and positive communication with parents (e.g., the importance of positive home communication, home visits, and successful parent conferences). Teachers, parents, and group facilitators jointly develop transition plans that detail successful classroom strategies for children with conduct problems; characteristics, interests, and motivators for the children; and ways parents would like to be contacted by teachers. This information follows the children each year, being passed along to each teacher at the new grade level. In addition, teachers learn to prevent peer rejec-
Preventing and Treating Conduct Disorders

The Incredible Years Child Training Intervention (Dinosaur School)

Research has indicated that some abnormal aspects of children's internal organization at the physiological, neurological, or neuropsychological level are linked to the development of CDs, particularly for children with a chronic history of early behavioral problems. Children with conduct problems are more likely to have certain temperamental characteristics such as inattentiveness, impulsivity, and attention-deficit/hyperactivity disorder (ADHD). Other child factors have also been implicated in early-onset CD. For example, deficits in social-cognitive skills and negative attributions contribute to poor emotional regulation and aggressive peer interactions. In addition, studies indicate that children with conduct problems have significant delays in their peer-play skills, in particular difficulty with reciprocal play, cooperative skills, taking turns, waiting, and giving suggestions. Finally, reading, learning, and language delays are also associated with conduct problems, particularly for "early life course persisters." The relationship between academic performance and ODD/CD is bidirectional. Academic difficulties may cause disengagement, increased frustration, and lower self-esteem, which contribute to behavior problems. At the same time, noncompliance, aggression, elevated activity levels, and poor attention limit children's ability to engage in learning and to achieve academically. Thus, a cycle is created in which one problem exacerbates the other. This combination of academic delays and conduct problems appears to contribute to the development of more severe CD and school failure.

These data suggest that children with conduct problems and ADHD require additional structure, monitoring, and overteaching (i.e., repeated learning trials) to learn to inhibit undesirable behaviors and to manage emotion. Parents and teachers need to use predictable routines; consistent, clear, specific limit setting; simple and calm language; concrete cues; and frequent reminders and redirections. In addition, this information suggests the need for direct intervention with children, focusing on their particular social learning needs, such as problem solving, perspective taking, and play skills as well as literacy and special academic needs.

Goals of the Child Training Programs

The goals are to promote children's competencies and reduce aggressive and noncompliant behaviors by

- Strengthening children's social skills and appropriate play skills.
• Increasing emotional awareness by labeling feelings, recognizing the differing views of oneself and others, and enhancing perspective taking.
• Promoting children's ability to persist with and attend to difficult tasks.
• Boosting academic success, reading, and school readiness.
• Reducing defiance, aggression, noncompliance, peer rejection, bullying, stealing, and lying and promoting compliance with teachers and peers.
• Decreasing negative attributions and conflict management approaches.
• Increasing self-esteem and self-confidence.

Content of Child Training Treatment

In 1990 we developed a video modeling a treatment program for children with conduct problems (ages 3–8). This 22-week program consists of a series of DVD programs (more than 180 vignettes) that teach children problem-solving and social skills. Organized to dovetail with the content of the parent training program, the program consists of seven main components: (1) introduction and rules, (2) empathy and emotion, (3) problem solving, (4) anger control, (5) friendship skills, (6) communication skills, and (7) school skills. The children meet weekly in small groups of six for 2 hours.

Group Process and Methods Used in Parent, Teacher, and Child Training Programs

All three treatment approaches rely on performance training methods, including videotape modeling, role play, practice activities, and live feedback from the therapist and other group members. In accordance with modeling and self-efficacy theories of learning, parents, teachers, and children using the program develop their skills by watching (and modeling) video examples of key management and interpersonal skills. We theorized that video examples provide a more flexible method of training than didactic verbal instruction or sole reliance on role play; that is, we could portray a wide variety of models and situations. We hypothesized that this flexible modeling approach would result in better generalization of the training content and, therefore, better long-term maintenance. Further, it would be a better method of learning for less verbally oriented learners. Finally, such a method has the advantage not only of low individual training cost when used in groups but also of possible mass dissemination. Heavily guided by the modeling literature, each program aims to promote modeling effects for participants by creating positive feelings about the video models. For example, the video vignettes show parents, teachers, and children of differing ages, cultures, socioeconomic backgrounds, and temperaments so that participants will perceive at least some of the models as similar to themselves and will, therefore, accept the vignettes as relevant. Whenever possible, vignettes show models (unrehearsed) in natural situations "doing it effectively" and "doing it less effectively" in order to demystify the notion that there is "perfect parenting or teaching" and to illustrate how one can learn from one's mistakes. This approach also emphasizes our belief in a coping and interactive model of learning (Webster-Stratton & Herbert, 1994); that is, participants view a vignette of a situation and then discuss and role-play how the character might have handled the interaction more effectively. Thus, participants improve on the interactions they see in the vignettes. This approach enhances participants' confidence in their own ideas and develops their ability to analyze interpersonal situations and select an appropriate response. In this respect, our
training differs from some other training programs in which the therapist provides the analysis and recommends a particular strategy.

The video vignettes demonstrate behavioral principles and serve as the stimulus for discussions, problem solving, and collaborative learning. After each vignette, the therapist solicits ideas from the group and involves them in the process of problem solving, sharing, and discussing ideas and reactions. The therapist's role is to support group members by teaching, leading, reframing, predicting, and role-playing, always within a collaborative context. The collaborative context is designed to ensure that the intervention is sensitive to participants' cultural differences and personal values. The program is tailored to each teacher, parent, or child's individual needs and personal goals as well as to each child's personality and behavior problems.

This program also implies a commitment to group members' self-management. We believe that this approach is empowering in that it restores the dignity, respect, and self-control of parents, teachers, and children, who are often seeking help at time of low self-confidence and feelings of self-blame. The group format is more cost-effective than individual intervention and also addresses an important risk factor for children with conduct problems: the family's isolation and stigmatization. The parent groups provide that support and become a model for parent support networks. (For details of therapeutic processes, please see Webster-Stratton & Herbert, 1994.) The child groups provide children with conduct problems some of their first positive social experiences with peers. Moreover, it was theorized that the group approach would provide more social and emotional support and decrease feelings of isolation for teachers as well as parents and children.

The child program video vignettes show children of differing ages, sexes, and cultures interacting with adults (parents or teachers) or with peers. After viewing the vignettes, children discuss feelings, generate ideas for more effective responses, and role-play alternative scenarios. In addition to the interactive video vignettes, the therapists use life-size puppets to model appropriate behavior and thinking processes for the children. The use of puppets appeals to children on the fantasy level so predominant in this preoperational age group. Because young children are more vulnerable to distraction, are less able to organize their thoughts, and have poorer memories, we use a number of strategies for reviewing and organizing the material, such as (1) playing "copycat" to review skills learned; (2) using many video examples of the same concept in different situations and settings; (3) using cartoon pictures and specially designed stickers as cues to remind children of key concepts; (4) role-playing with puppets and other children to provide practice opportunities; (5) reenacting video scenes; (6) rehearsing skills with play, art, and game activities; (7) assigning homework so children can practice key skills with parents; and (8) distributing letters to parents and teachers that explain the key concepts children are learning and asking them to reinforce these behaviors.

EVIDENCE FOR THE EFFECTS OF TREATMENT

Effects of Parent Training Program

The efficacy of The Incredible Years BASIC parent treatment program for children (ages 3–8) diagnosed with ODD/CD has been demonstrated in numerous published randomized control group trials (RCT) by the program developer and colleagues at the
University of Washington Parenting Clinic (Reid, Webster-Stratton, & Hammond, 2007; Webster-Stratton, 1981, 1982, 1984, 1990a, 1992, 1994, 1998; Webster-Stratton & Hammond, 1997; Webster-Stratton, Hollinsworth, & Kolpacoff, 1989; Webster-Stratton, Kolpacoff, & Hollinsworth, 1988; Webster-Stratton, Reid, & Hammond, 2004). In all of these studies, the BASIC program has been shown to improve parental attitudes and parent-child interactions and reduce harsh discipline and child conduct problems compared with both wait-list control groups. A treatment component analysis indicated that the combination of group discussion, trained therapist, and video modeling produced the most lasting results compared with treatment that involved only one training component (Webster-Stratton, Kolpacoff, & Hollinsworth, 1988; Webster-Stratton, Hollinsworth, & Kolpacoff, 1989). In addition, the BASIC program has been replicated in five projects by independent investigators in mental health clinics with families of children diagnosed with conduct problems (Drugli & Larsson, 2006; Larsson, Fossum, Clifford, Drugli, Handigard, & Morch, 2008; Lavigne et al., 2008; Scott, Spender, Doolan, Jacobs, & Aspland, 2001; Spaccarelli, Cotler, & Penman, 1992; Taylor, Schmidt, Pepler, & Hodgins, 1998) as well as with indicated populations (children with symptoms) and high-risk populations (families in poverty; Gardner, Burton, & Klimes, 2006; Gross et al., 2003; Hutchings et al., 2007; Miller Brotman et al., 2009). These replications were effectiveness trials done in applied mental health settings, not a university research clinic, and the therapists were typical therapists at the centers. Three of the replications were conducted in the United States, two in the United Kingdom, and one in Norway. This illustrates the transportability of the BASIC parenting program to other cultures. See Table 13.1 for summary of all studies of The Incredible Years programs.

In our fourth study (Webster-Stratton, 1994), we examined the effects of adding the ADVANCE intervention component to the BASIC intervention by randomly assigning families to either BASIC parent training or BASIC plus ADVANCE training. Both treatment groups showed improvements in child adjustment and parent-child interactions and a decrease in parent distress and child behavior problems. These changes were maintained at follow-up. ADVANCE children showed significantly greater increases in the number of prosocial solutions generated during problem solving in comparison to those whose parents received only the BASIC program. Observations of parents' marital interactions indicated significantly greater improvements in ADVANCE parents' communication, problem solving, and collaboration skills compared with parents who did not receive ADVANCE.

Overall, these results suggest that focusing on helping families to manage personal distress and interpersonal marital issues through a video modeling group discussion treatment (ADVANCE) added to treatment outcomes for our BASIC program. Consequently, a 20- to 24-week program that combines BASIC plus ADVANCE has become our core treatment for parents with children with conduct problems.

In our sixth and seventh studies (Webster-Stratton & Hammond, 1997; and Webster-Stratton, Reid, & Hammond, 2004, respectively), we examined the additive effects of combining our child training intervention (Classroom Dinosaur School) and teacher training with the parent training program (BASIC plus ADVANCE). Both studies replicated our results from the prior ADVANCE study and provided data on the advantages of training children and teachers as well as parents. (See a description of these study results in the Effects of Child and Teacher Training Programs section.)
TABLE 13.1. Summary of Treatment Results for Studies Evaluating The Incredible Years Programs

<table>
<thead>
<tr>
<th>Program evaluated</th>
<th>Number of Studies</th>
<th>Investigator: Program developer or independent replication</th>
<th>Population: Prevention or treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent</td>
<td>6</td>
<td>Developer</td>
<td>Treatment</td>
</tr>
<tr>
<td>Parent</td>
<td>4</td>
<td>Developer</td>
<td>Prevention</td>
</tr>
<tr>
<td>Child</td>
<td>2</td>
<td>Developer</td>
<td>Treatment</td>
</tr>
<tr>
<td>Child</td>
<td>1</td>
<td>Developer</td>
<td>Prevention</td>
</tr>
<tr>
<td>Teacher</td>
<td>1</td>
<td>Developer</td>
<td>Treatment</td>
</tr>
<tr>
<td>Teacher</td>
<td>2</td>
<td>Developer</td>
<td>Prevention</td>
</tr>
<tr>
<td>Parent</td>
<td>5</td>
<td>Replication</td>
<td>Treatment</td>
</tr>
<tr>
<td>Parent</td>
<td>5</td>
<td>Replication</td>
<td>Prevention</td>
</tr>
<tr>
<td>Child</td>
<td>1</td>
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<td>Child</td>
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<td>Replication</td>
<td>Prevention</td>
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<tr>
<td>Teacher</td>
<td>2</td>
<td>Replication</td>
<td>Prevention</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable measured (observation and report)</th>
<th>Effect Size(^b) (Cohen’s (d))</th>
<th>Most effective program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive parenting increased</td>
<td>0.46–0.51</td>
<td>Parent</td>
</tr>
<tr>
<td>Harsh parenting decreased</td>
<td>0.74–0.81</td>
<td>Parent</td>
</tr>
<tr>
<td>Child home behavior problems decreased</td>
<td>0.41–0.67</td>
<td>Parent</td>
</tr>
<tr>
<td>Child social competence</td>
<td>0.69–0.79</td>
<td>Child</td>
</tr>
<tr>
<td>School readiness and engagement</td>
<td>0.82–2.87</td>
<td>Child and teacher</td>
</tr>
<tr>
<td>Child school behavior problems</td>
<td>0.71–1.23</td>
<td>Child and teacher</td>
</tr>
<tr>
<td>Parent-school bonding</td>
<td>0.57</td>
<td>Teacher</td>
</tr>
<tr>
<td>Teacher positive management</td>
<td>1.24</td>
<td>Teacher</td>
</tr>
<tr>
<td>Teacher critical teaching</td>
<td>0.32–1.37</td>
<td>Teacher</td>
</tr>
</tbody>
</table>

*All studies used a randomized control group design and are cited in the reference list.
*\(^b\)Effect sizes include both treatment and prevention studies conducted by the program developer. The range of effect sizes represents the range for a particular outcome across all studies that included that outcome measure. The information to calculate effect sizes for independent replications was not available.

Parent Training Treatment: Who Benefits and Who Does Not?

We have monitored families longitudinally (1, 2, and 3 years posttreatment), and for study 3 (Webster-Stratton, 1994) we have completed a 10- to 15-year follow-up. We have assessed both the statistical significance and the “clinical significance” of treatment effects. In assessing the clinical significance, we looked at the extent to which parent and teacher reports indicated that the children were within the normal or the nonclinical range of functioning or showed a 30% improvement if there were no established normative data and whether families requested further therapy for their children’s behavior problems at the follow-up assessments. In our 3-year follow-up of 83 families treated with the BASIC program, we found that although approximately two-thirds of children showed behavior improvements, 25 to 46% of parents and 26% of teachers still reported child behavior problems (Webster-Stratton, 1990b). We also found that the families
whose children had continuing externalizing problems (according to teacher and parent reports) at our 3-year follow-up assessments were more likely to be characterized by marital distress or single-parent status, increased maternal depression, lower social class, high levels of negative life stressors, and family histories of alcoholism, drug abuse, and spouse abuse (Webster-Stratton, 1990b; Webster-Stratton & Hammond, 1990).

Hartman, Stage, and Webster-Stratton (2003) examined whether child ADHD symptoms (i.e., inattention, impulsivity, and hyperactivity) predicted poorer treatment results with the parent training intervention (BASIC). Contrary to Hartman et al.'s hypothesis, analyses suggested that the children with ODD/CD who had higher levels of attention problems showed greater reductions in conduct problems than children with no attention problems. Similar findings for children with ADHD were reported in the UK study (Scott et al., 2001). Currently, a study is underway by the developer to evaluate the parent and child treatments for young children with a primary diagnosis of ADHD.

Rinaldi (2001) conducted an 8- to 12-year follow-up of families who were in the ADVANCE study in which she interviewed 83.5% of the original study parents and adolescents (ages 12–19). Results indicated that 75% of the teenagers were typically adjusted with minimal behavioral and emotional problems. Furthermore, parenting skills taught in the intervention had lasting effects. Predictors of long-term outcome were mothers' posttreatment level of critical statements and fathers' use of praise. In addition, the level of coercion between children and mothers immediately posttreatment was a predictor of later teen involvement in the criminal justice system (Webster-Stratton, Rinaldi, & Reid, 2009).

In the past decade, we have also evaluated the parent programs as a selective prevention program with multiethnic, socioeconomically disadvantaged families in two randomized studies with Head Start families as well as with families referred by child welfare for abuse and neglect. Results of these studies suggest the program's effectiveness in promoting more positive parenting and preventing the development of conduct problems and strengthening social competence among preschool children (Webster-Stratton, 1998; Webster-Stratton, Reid, & Hammond, 2001). Reid et al. (2001) evaluated the effects of the parent intervention with an indicated, culturally diverse population of elementary school-age children. Those who received the intervention showed fewer externalizing problems, better emotion regulation, and stronger parent–child bonding than control children. Mothers in the intervention group showed more supportive and less coercive parenting than those in the control group. Similar results with selective and indicated populations were reported by independent investigators (Gardner et al., 2006; Gross et al., 2003; Hutchings, Gardner, et al., 2007; Linares, Montalto, MinMin & Vikash, 2006; Miller Brotman et al., 2003).

**Effects of Child and Teacher Training Programs**

To date, the developer has conducted two randomized studies evaluating the effectiveness of the child training program for reducing conduct problems and promoting social competence in children diagnosed with ODD/CD. In the first study, children and their parents were randomly assigned to one of four groups: parent training treatment (PT), child training treatment (CT), child and parent treatment (CT + PT), or a wait-list control group. Posttreatment assessments indicated that all three treatment conditions resulted in improvements in parent and child behaviors compared with controls. Children who...
received CT showed significantly greater improvements in problem solving and conflict management skills compared with those in the PT condition. On measures of parent and child behavior at home, PT and CT + PT parents and children had significantly more positive interactions compared with CT parents and children.

One-year follow-up assessments indicated that all the significant changes noted immediately posttreatment were maintained over time. Moreover, child conduct problems at home had decreased over time. Analyses of the clinical significance of the results suggested that the combined CT + PT condition produced the most improvements in child behavior at 1-year follow-up. However, children from all three treatment conditions showed increases in behavior problems at school 1 year later, as measured by teacher reports (Webster-Stratton & Hammond, 1997).

The second study tested the effects of different combinations of parent, child, and teacher training. Families with a child diagnosed with ODD were randomly assigned to one of six groups: (1) parent training only (BASIC + ADVANCE); (2) child training only (Dina Dinosaur curriculum); (3) parent training, academic skills training, and teacher training (BASIC + ADVANCE + SCHOOL + TEACHER); (4) parent training, academic skills training, teacher training, and child training (BASIC + ADVANCE + SCHOOL + TEACHER + CHILD); (5) child training and teacher training (CHILD + TEACHER); and (6) wait-list control group. Results indicated that, as expected, trained teachers were rated as less critical, harsh, and inconsistent and more nurturing than control teachers. Parents in all three conditions who received parent training were significantly less negative and more positive than those who did not receive training. Children in all five treatment conditions showed significantly greater reductions in aggressive behaviors with mothers at home and with peers and teachers at school compared with controls. Greater treatment effects for children's positive social skills with peers were found in the three conditions with child training compared with the control condition. Most treatment effects were maintained at 1-year follow-up. In summary, short-term results replicate our previous findings on the effectiveness of the parent and child training programs and indicate that teacher training teachers' classroom management skills and improves children's classroom aggressive behavior. In addition, treatment combinations that added either child training or teacher training to the parent training were most effective.

A randomized control group study by the developer (Webster-Stratton et al., 2001) and a study by an independent evaluator evaluated the teacher training curriculum in prevention settings with Head Start teachers (Raver et al., 2008). In the first study, parent–teacher bonding was higher for experimental conditions than for controls. Children in the experimental group showed fewer conduct problems at school than controls, and trained teachers showed better classroom management than control teachers. In the second study, Head Start classes in the treatment condition had higher levels of positive classroom climate, teacher sensitivity, and behavior management than those in the control condition.

Last, a recent RCT study by Webster-Stratton, Reid, and Stoolmiller (2008) evaluated The Incredible Years teacher training and Classroom Dinosaur School curriculum with Head Start and schools that have high numbers of economically disadvantaged children serving as controls. Results showed significantly greater improvements in conduct problems, self-regulation, and social competence for the intervention group compared with the control groups. Effect size comparing treatment versus control groups at
postassessment showed that the intervention had small to moderate effects on children whose baseline behavior was in the average range but large effects on children with high initial levels of conduct problems.

Who Benefits from Small Group Dinosaur Child Treatment Program?

Families of 99 children with ODD/CD ages 4–8 years who were randomly assigned to either the small-group child training treatment group or a control group were assessed on multiple risk factors (child hyperactivity, parenting style, and family stress). These risk factors were examined in relation to children's responses to the child treatment. The hyperactivity or family stress risk factors did not impact children's ability to benefit from the treatment program. Negative parenting, on the other hand, did have a negative impact on children's treatment outcome. Fewer children who had parents with one of the negative parenting risk factors (high levels of criticism or physical spanking) showed improvements compared with children who did not have a negative parenting risk factor. Thus, for children whose parents exhibit harsh and coercive parenting styles, it may be necessary to offer a parenting intervention in addition to a child intervention (Webster-Stratton et al., 2001). Our studies also suggest that child training enhances the effectiveness of parent training treatment for children with pervasive conduct problems (home and school settings).

WHo BENEFITS FROM TREATMENT AND HOW?

Beauchaine, Webster-Stratton, and Reid (2005) examined mediators, moderators, and predictors of treatment effects by combining data from six randomized controlled trials of The Incredible Years (including 514 children ages 3–9). Families in these trials received parent training, child training, teacher training, or a combination. Marital adjustment, maternal depression, paternal substance abuse, and child comorbid anxiety, depression, and attention problems were treatment moderators. In most cases, analyses of these treatment moderators showed that intervention combinations that included parent training were generally more effective than those that did not. For example, children of mothers who were maritally distressed fared better if treatment included parent training. Indeed, parent training exerted the most consistent effects across different moderating variables, and there were no instances in which interventions without parent training were more effective than interventions with parent training. However, the addition of teacher training seemed to be important for impulsive children. Finally, despite these moderating effects, more treatment components (parent, child, and teacher training) were associated with steeper reductions in mother-reported externalizing slopes as well as internalizing problems (Webster-Stratton & Herman, 2008). This suggests that, all things being equal, more treatment is better than less. Harsh parenting practices both mediated and predicted treatment success; in other words, the best treatment responses were observed among children of parents who scored relatively low on verbal criticism and harsh parenting at baseline but nevertheless improved during treatment.

In a prevention study that included socioeconomically disadvantaged children with and without conduct problems (Reid, Webster-Stratton, & Baydar, 2004), we found that child change was related to maternal engagement in the parenting program and to
maternal reduction of critical parenting. In this study, maternal engagement was highest for highly critical mothers and for mothers of children who had the highest levels of conduct problems. A second study analyzing these same prevention data (Baydar, Reid, & Webster-Stratton, 2003) showed that although mothers with mental health risk factors (i.e., depression, anger, history of abuse as a child, substance abuse) exhibited poorer parenting at baseline than mothers without these risk factors, they were engaged in and benefited from the parenting training program at comparable levels. Recent research with children with ADHD and ODD also showed that dosage of intervention was related to treatment outcome: Mothers who attended 8–20 sessions showed significantly more change in parenting and child outcome than those who attended 8–10 sessions (Webster-Stratton, 2009). A similar independent finding regarding dose effects, with greater improvement for those receiving more treatment sessions, was also found in a study treating children with ODD in a primary care setting (Lavigne, LeBailly, Gouze, Cicchetti, Pochyly, Arend, et al., 2008). This argues for the importance of not abbreviating intervention.

DIRECTIONS FOR FUTURE RESEARCH

In recent years, The Incredible Years parent programs have been extended to include older children (8–13 years) as well as infants and toddlers (0–3 years). Current studies are in progress to evaluate their effectiveness. A recent study (Hutchings, Bywater, Williams, Shakespeare, & Whitaker, 2009) using the 8–12-year-old version of the School Age version of the IY parenting program has shown significantly improved parent reports of child behavior problems, as well as significant improvements in parental depression and parenting skills. Other research is evaluating The Incredible Years programs with new populations, including neglectful and abusive families referred by child protective service agencies, children with ADHD, and families from many different countries and regions including Russia, Turkey, Australia, and Scandinavia.

Although our programs were first designed and evaluated to be used as clinic-based treatments for diagnosed children, our recent work has extended our clinic-based treatment model to school settings and has targeted high-risk populations. As more is known about the type, timing, and dosage of interventions needed to prevent and treat children's conduct problems, we can further target children and families to offer treatment and support at strategic points. By providing a continuum of prevention and treatment services, we believe we will be able to prevent the further development of conduct disorders, delinquency, and violence.

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