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The Incredible Years® Parents, Teachers, and Children Training Series:

A Multifaceted Treatment Approach for Young Children with Conduct Problems

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Overview

The Clinical Problem

Rates of early-onset conduct problems in preschool children are alarmingly high; 6-15% (Egger & Angold, 2006; Sawyer, 2000) and as high as 35% for low-income families (Webster-Stratton & Hammond, 1998). Developmental theorists have suggested that, compared to typical children, "early starter" delinquents who first exhibit conduct problems or oppositional defiant disorder (ODD) in the preschool years, have a two- to threefold risk of becoming tomorrow's serious violent and chronic juvenile offenders (Loeber & Farrington, 2000; Loeber et al., 1993; Patterson, Capaldi, & Bank, 1991; Snyder, 2001; Tremblay et al., 2000). Indeed, the primary developmental pathway for serious conduct disorders (CD) in adolescence and adulthood appears to be established during the preschool period.

Risk factors that contribute to child conduct problems include: ineffective parenting (Farrington, Loeber, & Ttofi, 2012; Jaffee, Caspi, Moffitt, & Taylor, 2004); family mental health and criminal history (Knutson, DeGarmo, Koeppl, & Reid, 2005); child biological and developmental risk factors (e.g., attention deficit disorders, learning disabilities, and language delays) (Beauchaine, Hinshaw, & Pang, 2010); school risk factors (Hawkins, Catalano, Kosterman, Abbott, & Hill, 1999; Webster-Stratton & Reid, 2010); 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).

Current policy thrust is towards earlier intervention as it thought to be have more powerful and longer effects on child outcomes because it addresses early risk factors before secondary risk factors have developed. For these reasons, The Incredible Years® (IY) treatment programs were designed to prevent and treat behavior problems when they first begin and to intervene in multiple settings with parents, teachers, and children. This approach to early intervention can counteract risk factors and strengthen protective factors, thereby helping to prevent a developmental trajectory to increasingly aggressive and violent behaviors. This chapter reviews the IY programs and their associated research.

Characteristics of the Treatment Programs

Incredible Years® BASIC Parenting Programs

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

- Increasing positive parenting, self-confidence, and parent-child attachment;
- Teaching parents to coach children's language development, academic readiness, persistence and sustained attention, and social and emotional development;
- Decreasing harsh discipline and increasing positive behavior management strategies;
- Improving parents' problem solving, depression and anger management, and positive communication;
- Increasing family support networks and school involvement/bonding;
- Helping parents and teachers work collaboratively;
- Increasing parents' involvement in academic-related activities at home.

Content of the BASIC IY parent training treatment program. In 1980, the first IY program, an interactive, video-based parent intervention (BASIC) was developed and researched for parents of children ages 2–8 years (Webster-Stratton, 1981). This program has been revised and updated and now includes four separate BASIC programs: Baby Program (4 weeks to 9 months), Toddler Program (1-3 years), Preschool Program (3-5 years) and School Age Program (6-12 years). Trained and accredited IY group leaders/clinicians meet weekly for 2 hours with groups of 10-12 parents and use selected DVD vignettes to trigger discussions, problem solving and practices. Each program has an extensive leader manual, parent handouts, and a parent textbook. The number of weekly sessions ranges from 10-24 weeks. The protocol for high risk populations or those families whose children are diagnosed with ODD or Attention Deficit Hyperactivity Disorder

(ADHD) is longer than protocols for the prevention population (see web site for protocols). Group leaders should complete at least the minimum number of recommended sessions for the population addressed and pace the learning according to family goals, needs and progress. The specific objectives for each of these programs can be found on the web site http://incredibleyears.com/about/incredible-years-series/objectives/.

Each of the BASIC programs begin with a focus on enhancing positive relationships and attachment between parents and children by teaching child-directed interactive play, social, emotional, academic and persistence coaching, interactive reading methods, praise, and incentive programs. Depending on the age of their children, parents also learn how to set up predicable home routines and rules, and use a specific set of positive discipline techniques including monitoring, ignoring, effective limit setting, redirection and distractions, natural and logical consequences, and Time-Out to calm down. Parents in the preschool and school-age BASIC programs are taught to teach their children problem-solving skills, support academic learning at home, and develop positive parent-teacher partnerships.

The IY *Baby and Toddler Programs* are focused on supporting babies and toddlers to successfully accomplish three developmental milestones – secure attachment with their primary caregivers; language and social expression; and beginning development of a sense of self. Program topics for the baby program include: baby-directed play; speaking "parentese"; providing physical, tactile and visual stimulation; nurturing parenting; providing a language-rich environment; baby-proofing, and building a support network.

Program topics for the toddler program include: toddler-directed play; descriptive commenting, social and emotion coaching; language rich specific praise, understanding

toddlers' drive for exploration and need for predictable routines; clear limit setting, toddler-proofing to assure safety; and separation and reunion strategies.

The IY BASIC *Preschool Program* focuses on the developmental milestones of encouraging school readiness skills (pre-writing, pre-reading, discovery learning); emotional regulation; and beginning friendships skills. The program builds on the toddler topics and adds academic, persistence, and self-regulation coaching; proactive discipline; and teaching children beginning problem-solving skills.

The *School Age Program* focuses on encouraging children's independence; motivation for academic learning; and development of family responsibility and empathy awareness. Program topics continue to build on core relationship skills with special time with parents, incentive systems for difficult behaviors, clear and respectful limit setting, encouragement of family chores, predictable homework routines, adequate monitoring, logical consequences, and working successfully with teachers. The school-age program has protocols for 6-8 and 9-12 year old children. The older age protocol includes content on monitoring afterschool activities, and discussions regarding family rules about TV and computer use, as well as drugs and alcohol.

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 (Farrington et al., 2012). The ADVANCE treatment program is a 10-12 session program offered after the completion of the BASIC program and teaches adult conflict and depression management, problem-solving, and emotion-regulation. This program is designed to help mediate the negative influences of these

personal and interpersonal factors on parenting skills and promote increased maintenance and generalizability of treatment effects.

Adjunct Incredible Years® Parenting Programs

In addition to the parenting programs described above, there are several adjunct parenting programs designed to target specific developmental issues or populations.

The *School Readiness* Program. This 4 session curriculum for preschoolers is a prevention program to help parents promote children's school readiness by supporting their children's self-confidence and faciliating their language and reading skills.

The Attentive Parenting® Program (ages 2-6). The Attentive Parenting Program is a universal prevention program for children designed to teach social, emotional and persistence coaching, reading skills and how to promote children's self-regulation and problem-solving skills. There is a 4-6 week protocol for parents of toddlers (2-4 years) and a 6-8 week protocol for parents of 4-6 year-old children.

Parenting Program for Children (ages 2-5) on the Autism Spectrum Disorder (ASD). This program provides vignette examples of children with language delays and/or who are on the autism spectrum. This 12-14 week program can be used in its entirety with groups of parents who have young children with these diagnoses, or selected vignettes can be with used to supplement the BASIC preschool program for parents who have children with ASD. Program topics parallel those in the BASIC parenting program with attention to ways that parenting strategies need to be modified for children with developmental delays or ASD. Modifications include: using gestures, imitaton, songs and visual picture cards for children with limited language; incorporating social sensory routines to get in children's attention spotlight; engaging in pretend and puppet play to enhance joint play;

teaching of self-regulation skills; and including concepts of antecedent accommodations and environmental modification to promote appropriate behavior and replacement behaviors (Webster-Stratton, Dababnah, & Olson, 2015).

Incredible Years Teacher Classroom Management (TCM) 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 reduces opportunities to interact socially and to learn appropriate friendship skills. Peer rejection eventually leads to association with deviant peers, which increases their risk for drug abuse and antisocial behavior (Dishion & Piehler, 2007).

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. Lack of teacher support and exclusion from the classroom exacerbates these children’s social problems and academic difficulties, contributing to the likelihood of school dropout. 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.

Content of teacher classroom managment training intervention. The teacher training program is a 6-day (or 42-hour) group format program for teachers, school

counselors, and psychologists working with children ages 3-8 years. Training targets the use of effective classroom management strategies; promoting positive relationships with difficult students; strengthening social skills and emotional regulation; and strengthening teachers' collaboration with parents. A complete description of the program content is described in the book that teachers use for the course, titled *Incredible Teachers* (Webster-Stratton, 2012b).

Incredible Beginnings : Teacher and Child Care Provider Program. This 6-day group-based program is for day care and preschool teachers of children ages 1-5 years. Topics include coping with toddler's separation anxiety and promoting attachment with caregivers; collaborating with parents and promoting their involvement; promoting language development with gestures, imitation, modeling, songs and narrated play; using puppets, visual prompts, books and child-directed coaching methods to promote social and emotional development; and proactive behavior management approaches.

Helping Preschool Children with Autism: Teachers and Parents as Partners Program. This program is designed to be used as an add-on program to the IY Parent Program for Children with ASD and to the IY TCM Program. The program focuses on how to promote language development and communication with peers and helps providers to provide social and emotional coaching and teach children self-regulation skills.

Incredible Years Child Training Intervention (Dinosaur School)

Aspects of the child's internal organization at the physiological, neurological, and/or neuropsychological level are linked to the development of conduct disorders, particularly for children with a chronic history of early behavioral problems (Beauchaine, Neuhaus, Brenner, & Gatzke-Kopp, 2008). Children with conduct problems are more

likely to have temperamental characteristics such as inattentiveness, impulsivity, and attention-deficit/hyperactivity disorder (ADHD). Deficits in social-cognitive skills and negative attributions have also been linked to early-onset conduct problems and contribute to poor emotional regulation and aggressive peer interactions (Dodge & Feldman, 1990). Children with conduct problems have significant delays in their peer-play skills:difficulty with reciprocal play, cooperative skills, taking turns, waiting, and giving suggestions. Finally, reading, learning, language delays and autism are also associated with conduct problems, particularly for “early life course persisters”. The relationship between academic performance and ODD/CD is bidirectional with academic difficulties leading to frustration and behavior problems and behavior problems limiting a child’s ability to be engaged in learning. 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 added structure, monitoring, coaching, and over teaching (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 language; concrete cues; visual prompts and frequent reminders, rehearsals and redirections. In addition, these children need direct intervention 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 child training programs promote children’s competencies and reduce aggressive and noncompliant behaviors by doing the following:

- Strengthening socially appropriate play skills;
- Promoting children's use of self-control and self-regulation strategies;
- Increasing emotional awareness and language;
- 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, and bullying, and promoting compliance with teachers and peers;
- Decreasing negative attributions and conflict management approaches; and
- Increasing self-esteem and self-confidence.

Content of child training treatment. The child treatment program targets 4-8 year old children with conduct problems who meet weekly for 2 hours in groups of six children. Organized to dovetail with the content of the parent training program, the 18-22 week 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.

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

All IY treatment approaches rely on performance training methods including video modeling, role play, practice activities, and live therapist and peer feedback. In accordance with modeling and self-efficacy theories of learning, participants in the programs develop skills by watching (and modeling) video vignettes of key skills. Video examples provide a more accessible and flexible method of training than didactic verbal instruction or sole reliance on role play because they portray a wide variety of models and situations. The developer hypothesized that this flexible modeling approach would result in better

generalization of the training content and, therefore, more sustainable long-term maintenance. Further, it would be a better method of learning for less verbally oriented learners.

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 accept the vignettes as relevant. Many of the programs have been translated into multiple languages.Vignettes show models (unrehearsed) in natural situations "doing it effectively" and "doing it less effectively" in order to demystify the notion there is "perfect parenting or teaching" and to illustrate how to learn from mistakes. This approach also emphasizes a coping, interactive and experiential model of learning (Webster-Stratton, 2012a; Webster-Stratton & Herbert, 1994); that is, participants view a video vignette of a situation and then discuss and practice how the individual handled the interaction effectively or might do so more effectively. 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, IY training differs from some training programs where the therapist provides the analysis and recommends a particular strategy.

The video vignettes demonstrate behavioral principles and serve as the stimulus for discussions, self-reflection, problem solving, practice and collaborative learning. 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 individual 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 temperament and behavior problems.

The group format is more cost-effective than individual intervention and also addresses an important risk factor for children with conduct problems; the child and family's isolation and stigmatization. The groups provide support and a positive peer group for parents, teachers, and children. (For details of the parent, teacher, and child therapeutic processes, see Webster-Stratton, 2012a; and Webster-Stratton, 2012b) .

In the child program, methods are developmentally tailored to the ages of the children. After viewing the vignettes, children discuss feelings, generate ideas for more effective responses, and role-play alternative scenarios. Therapists use life-size puppets to model appropriate behavior and thinking processes. Because young children are more vulnerable to distraction, are less able to organize their thoughts, and have poorer memories, material is taught and reviewed through games, songs, art projects, behavioral practice, visual cue cards, story telling by the puppets, video vignettes, coached play times, home activities, and letters for teachers and parents.

Home-based Delivery. While participation in the group-based IY programs is highly recommended because of the support and learning provided by other parents, there is also a *Home-based Coaching Model* for each parenting program. Home-based sessions can be offered to parents who cannot attend groups, as make-up sessions, or to supplement the group program for high risk families such as those referred by child-welfare.

Evidence for the Effects of the IY Programs

Effects of Parent Training Programs with Treatment and Indicated Populations

The efficacy of the IY BASIC parent treatment program for children (ages 2–8

years) diagnosed with ODD/CD and ADHD has been demonstrated in eight published randomized control group trials (RCTs) by the program developer. See references and detailed review of studies on web site http://incredibleyears.com/books/iy-training-series-book/ .The BASIC program has consistently improved parental attitudes and parent–child interactions and reduced harsh discipline and child conduct problems compared to wait-list control groups. These results are consistent for toddler, preschool and school age versions of the programs (Gross et al., 2003). One study (Webster-Stratton, 1994) indicated the additive benefits of combining the BASIC program with the ADVANCE program on children's prosocial solution generation and parents' marital interactions. Consequently a 20–24 week program that combined BASIC plus ADVANCE became the core treatment for parents of children diagnosed with ODD and /or ADHD and was used for the majority of the treatment studies. One recent pilot study evaluating the BASIC program with parents of children with ASD indicated promising findings including a reduction in parent stress (Dababnah & Parish, 2014).

Several studies have also shown that IY treatment effects are durable 1-3 years post treatment (Webster-Stratton, 1990; Webster-Stratton, Hollinsworth, & Kolpacoff, 1989; Webster-Stratton, Reid, & Beauchaine, 2013). There are two 8- to 12-year follow-up studies of families treated with the IY parent program because of their children's conduct problems (Scott, Briskman, & O'Connor, 2014; Webster-Stratton, Rinaldi, & Reid, 2010) The Webster-Stratton study indicated that 75% of the teenagers were typically adjusted with minimal behavioral and emotional problems. The Scott study indicated that in comparison to mothers in the control condition who received individualized supportive therapy, the mothers in the IY treatment condition expressed greater emotional warmth

and supervised their adolescents more closely, and their children's reading ability was substantially improved. [i]The BASIC programs results have been replicated with treatment populations by independent investigators in mental health clinics with families of children diagnosed with conduct problems (Drugli & Larsson, 2006; Drugli, Larsson, Fossum, & Morch, 2010; Gardner, Burton, & Klimes, 2006; Scott, Spender, Doolan, Jacobs, & Aspland, 2001; Scott et al., 2010; Taylor, Schmidt, Pepler, & Hodgins, 1998) and in doctor's offices with toddlers with ADHD symptoms (Lavigne, LeBailly, Gouze, Cicchetti, Pochyly, et al., 2008; Perrin, Sheldrick, McMenamy, Henson, & Carter, 2014)

Two studies have examined the additive effects of combining the IY child training intervention (CT) and IY teacher training with the parent program (PT) for parents with children with ODD (Webster-Stratton & Hammond, 1997; Webster-Stratton, Reid, & Hammond, 2004). Both studies provided data on the advantages of adding training for children and teachers. (See description of these study results below, in the section on child training results.)

Effects of Parent Training Programs with Selective and Universal Populations

The parent program has also been shown in multiple RCTs by the developer (Reid, Webster-Stratton, & Beauchaine, 2001; Webster-Stratton, 1998; Webster-Stratton, Reid, & Hammond, 2001) and independent investigators (see review (Webster-Stratton & Reid, 2010) to be effective for diverse socioeconomically disadvanted populations. These studies showed positive effects on parenting and child behaviors similar to the treatment studies above, and were consistent across parents from culturally diverse backgrounds. The replications by independent investigators were "effectiveness" trials in community settings and not a university research clinic, and the IY therapists were existing staff

(nurses, social workers and psychologists) at the centers or doctor's offices (for example (Perrin et al., 2014; Posthumus, Raaijmakers, Maassen, Engeland, & Matthys, 2012; Raaijmakers et al., 2008). The program has also been found to be effective with diverse populations including those representing Latino, Asian, African American, and Caucasian background in the United States (Reid et al., 2001), and in other countries such as the United Kingdom, Ireland, Norway, Sweden, Holland, New Zealand, Wales, and Russia (Gardner et al., 2006; Hutchings et al., 2007; Larsson et al., 2009; Raaijmakers et al., 2008; Scott et al., 2001; Scott et al., 2010).

A meta-analytic review of 50 control group studies evaluating the effectiveness of the IY parent programs (Menting, Orobio de Castro, & Matthys, 2013). This review found an average effect size for disruptive behaviors of d=.39 for 40 studies conducted in North America and an average effect size of d=.31 for 10 studies conducted in Europe. These findings illustrate the transportability of the IY parenting programs to other cultures and countries. See Table 1 for a summary of the developer's studies with Incredible Years.

To date one RCT has been conducted by an independent investigator in Norway using a briefer version of the BASIC Preschool Program with a universal, non high risk population that has shown promising results (Reedtz, 2010). Another Norwegian study using the *Attentive Parenting* Program as a universal delivery is currently being evaluated. Finally, several studies are underway to evaluate the Baby and Autism Programs.

Parent training treatment: Who benefits and who does not? We have assessed both "statistical significance" and "clinical significanc" of treatment effects. Clinical significance was defined as being within the normal or the nonclinical range of functioning or showing a 30% improvement if there were no established normative data.

In our 3-year follow-up of 83 families treated with the BASIC program, we found that 25% to 46% of parents and 26% of teachers still reported child behavior problems (Webster-Stratton, 1990). We also found that the families whose children had continuing externalizing problems (according to teacher and parent reports) were more likely to be characterized by maritally distressed 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, 1990; Webster-Stratton & Hammond, 1990).

Hartman (Hartman, Stage, & Webster-Stratton, 2003) examined whether child ADHD symptoms (i.e., inattention, impulsivity, and hyperactivity) predicted poorer treatment results from the parent training intervention (BASIC). Contrary to Hartman'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). A recent study with children whose primary diagnoses was ADHD indicated the combined parent plus child program was effective in reducing children's externalizing, hyperactivity, inattentive and oppositional behaivors, and improving emotional regulation and social competence (Webster-Stratton, Reid, & Beauchaine, 2011; Webster-Stratton et al., 2013).

(Rinaldi, 2001), examined predictors of long-term outcome and found that mothers' post-treatment level of critical statements and fathers' post-treatment use of praise predicted teen outcome 8-12 years after treatment. In addition, the level of coercion

between the children and mothers immediately post-treatment was a predictor of later teen adjustment.

Effects of Child and Teacher Training Programs

Treatment Studies with Child and Teacher Programs as Adjuncts to Parent Program: To date, the developer has conducted three randomized studies evaluating the effectiveness of the child program for reducing conduct problems and promoting social competence in children diagnosed with ODD/CD and ADHD. In the first study (Webster-Stratton & Hammond, 1997), children with ODD and their parents were randomly assigned to: parent training treatment (PT), child training treatment (CT), child and parent treatment (CT + PT), or a waiting-list control group. All three treatment conditions showed improvements in parent and child behaviors in comparison to controls. Comparisons of the three treatment conditions indicated that children who received CT showed improvements in problem solving, and conflict management skills compared to those in the PT only condition. On measures of parent and child behavior at home, PT and CT + PT parents and children had more positive interactions in comparison to CT parents and children. All the changes noted immediately post-treatment were maintained at 1-year follow-up and 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. Children from all three treatment conditions showed increases in behavior problems at school 1 year later, as measured by teacher reports.

A second study (Webster-Stratton et al., 2004) 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 (PT); (2) Child training only (CT); (3) Parent training, and teacher training (PT +TT) ; (4) Parent training, teacher training, and child training ((PT+TT+CT); (5) Child training and teacher training (CT+TT); and (6) Waiting-list control group.

Results from this study (Webster-Stratton et al., 2004) replicated our previous findings on the effectiveness of the parent and child training programs and indicate that teacher training improves 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. Most treatment effects were maintained at 1-year follow-up.

A third RCT evaluated the effects of IY parent program in combination with the child training program for children diagnosed with ADHD. Independent observations at home revealed treatment effects for reducing child deviant behaviors with mothers. Mothers, fathers and teachers reported improvements in children's externalizing behaviors and peer observations in the classroom indicated improvements in treated children's social competence (Webster-Stratton et al., 2011).

Selective Prevention Studies: Randomized control group studies by the developer (Webster-Stratton et al., 2001) and an independent evaluator (Raver et al., 2008) evaluated the teacher classroom management (TCM) training curriculum in prevention settings with Head Start teachers. In the Webster-Stratton study, children in the treatment group showed fewer conduct problems at school than controls, and trained teachers

showed better classroom management and more bonding with parents. In the Raver study, Head Start classrooms in the treatment condition had higher levels of positive classroom climate, teacher sensitivity and behavior management than classrooms in the control condition.

A recent study with primary grade teachers has evaluated the benefits of the TCM program for targeting teacher awareness of the importance of enhancing parent involvement in their children's education and for improving student academic competence (Reinke et al., 2014). Preliminary results of a randomized trial of TCM (105 teachers, 1,818 students) suggested that improving teacher-parent bonding and parent educational involvement holds promise for improving child academic and behavior outcomes at school.

Lastly an RCT evaluated the teacher training plus classroom Dinosaur curriculum in Head Start and elementary schools serving economically disadvantaged children (N=153 teachers and 1,768 students). Results showed improvements in intervention students' conduct problems, self-regulation, and social competence compared with control students (Webster-Stratton, Reid, & Stoolmiller, 2008). [ii]

Who Benefits From Dinosaur Child Training? Families of 99 children with ODD/CD, aged 4–8 years who were randomly assigned to either the child training treatment group or a control group, were assessed on multiple risk factors (child hyperactivity, parenting style, and family stress). Hyperactivity or family stress risk factors did not have an impact on children's ability to benefit from the treatment program. Negative parenting 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 to children who did not have a negative parenting risk factor. This finding suggests that for children whose parents exhibit harsh and coercive parenting styles, a parenting intervention should be offered 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 and colleagues (Beauchaine, Webster-Stratton, & 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 between the ages of 3 and 9). Families in these trials had received parent training, child training, teacher training, or a combination of treatments. Marital adjustment, maternal depression, paternal substance abuse, and child comorbid anxiety and attention problems were treatment moderators. In most cases intervention combinations that included parent training were more effective than interventions without parent training. For example, children of mothers who were martially distressed fared better if their 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, plus teacher training) were associated with steeper reductions in mother reported externalizing slopes. 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 with 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 whether mothers reduced their critical parenting. In this study, maternal program 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 while mothers with mental health risk factors (i.e., depression, anger, history of abuse as a child, and 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 levels that were comparable to mothers without these risk factors. Research also showed that dosage of intervention was related to treatment outcome with mothers who attended more sessions showing more change in parenting than those who attended fewer sessions. 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, Jessup, et al., 2008). This argues for the importance of not abbreviating intervention.

Directions for Future Research

In recent years the IY parent programs have been expanded with new vignettes to include older children (8-13 years) as well as infants and toddlers (0-3 years). A new

program called *Incredible Beginnings* has also been recently developed for providing training to day care providers and preschool teachers of children ages 1-5 years. Two studies have shown positive outcomes with the IY toddler program (Gross et al., 2003; Perrin et al., 2014). Other studies are currently being conducted with the baby and toddler programs for high risk families as well as using the *Attentive Parenting Program* as a universal intervention for all parents. More research is needed regarding the home-based coaching method of IY program delivery as well as determining the type, timing, and dosage of specific IY programs needed for particular populations. By providing a continuum of prevention and treatment services, it is possible to provide a roadmap for how to prevent the further development of conduct disorders, delinquency, and violence and how to optimize children's social, emotional and academic development.

While the IY programs have been shown in numerous studies to be transportable and effective across different contexts worldwide, scaling up to deliver the program with fidelity on a large scale is an on-going challenge to successful implementation. Unfortunately, research shows that fidelity and positive program outcomes are often compromised when interventions are implemented by therapists in "real world" settings (Hoagwood, Burns, & Weisz, 2002; Schoenwald & Hoagwood, 2001). Further research must examine economic, political, agency, and therapist variables that influence fidelity. We know what works to prevent and treat conduct disorders and promote social and emotional competence in young children. It is now time to support large-scale, sustainable, high-quality implcmentation of these programs with fidelity.

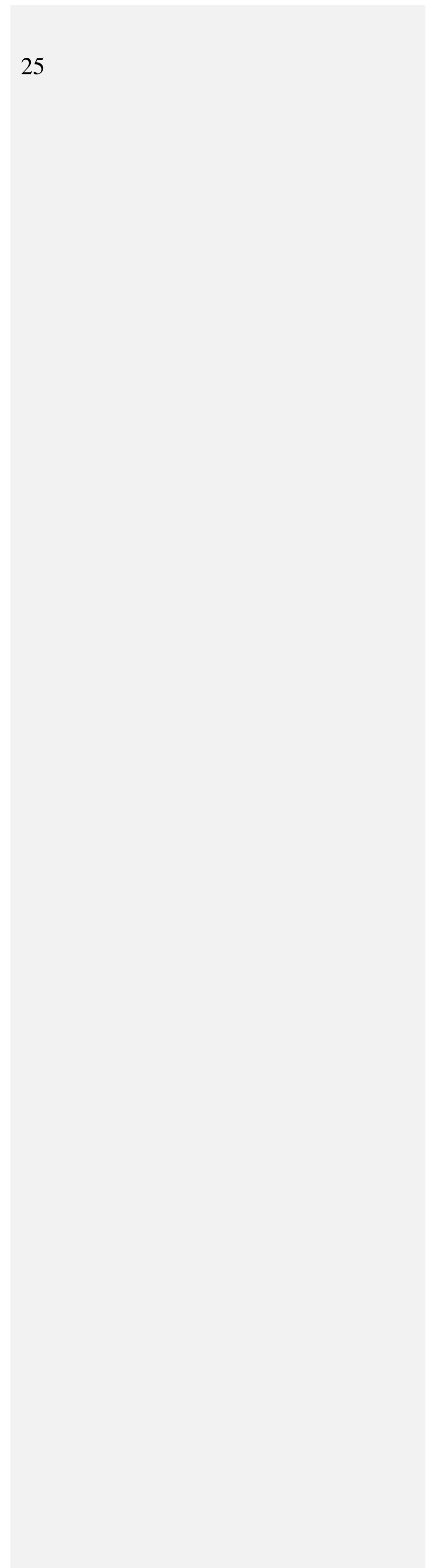

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Table 1

Summary of Treatment Results for Studies Evaluating the Incredible Years Programs

Study Information			
Program Evaluated	Number of Studies[1]	Investigator: Developer or Independent Program Replication	Population: Prevention or Treatment
Parent	6	Developer	Treatment
Parent	4	Developer	Prevention
Child	2	Developer	Treatment
Child	1	Developer	Prevention
Teacher	1	Developer	Treatment
Teacher	2	Developer	Prevention
Parent	5	Replication	Treatment
Parent	5	Replication	Prevention
Child	1	Replication	Treatment
Child	1	Replication	Prevention
Teacher	2	Replication	Prevention

Outcomes		
Variable Measured (Observation and Report)	Effect Size[2] Cohen's *d*	Most Effective Program
Positive Parenting Increased	*d*=.46-.51	Parent
Harsh Parenting Decreased	*d*=.74-.81	Parent
Child Home Behavior Problems Decreased	*d*=.41-.67	Parent
Child Social Competence	*d*=.69-.79	Child
School Readiness and Engagement	*d*=82-2.87	Child and Teacher
Child School Behavior Problems	*d*=.71-1.23	Child and Teacher
Parent-School Bonding	*d*=.57	Teacher
Teacher Positive Management	*d*=1.24	Teacher
Teacher Critical Teaching	*d*=.32-1.37	Teacher

[1]All studies used randomized control group design and are cited in the reference list. In treatments studies subjects were randomly assigned at the child level, in prevention studies randomization was assigned at the classroom or school level.

John Weisz 1/6/2016 9:53 AM
Comment [1]: Nice, succinct table. I have a few questions about it—please see my letter. Thanks!

[2]Effect sizes include both treatment and prevention studies conducted by the program developer and are between-group effects. 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. The more recently developed adjunct parent programs and the teacher Incredible Beginnings program have not been researched by the developer and are currently being studied in Norway and Wales.

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