

AN EXAMINATION OF GROUP PARENT TRAINING WITH CONTEXTUALIZED
COACHING ON POSITIVE PARENTING PRACTICES

by

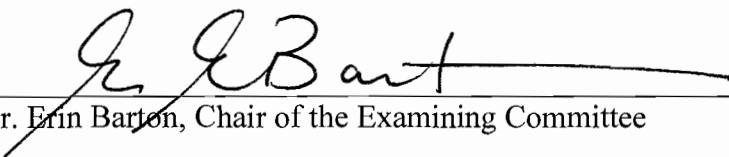
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A THESIS

Presented to the Department of Special Education
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“An Examination of Group Parent Training with Contextualized Coaching on Positive Parenting Practices,” a thesis prepared by Dana Cohen in partial fulfillment of the requirements for the Master of Science degree in the Department of Special Education and Clinical Sciences. This thesis has been approved and accepted by:




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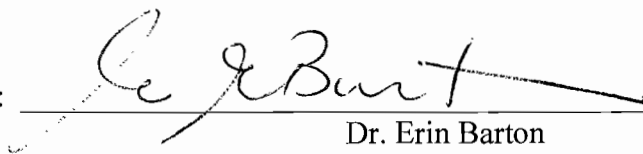
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An Abstract of the Thesis of
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Title: AN EXAMINATION OF GROUP PARENT TRAINING WITH
CONTEXTUALIZED COACHING ON POSITIVE PARENTING PRACTICES

Approved: _____

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Dr. Erin Barton

There is some evidence to support the use of parent training with families with young children with developmental disabilities exhibiting challenging behaviors. However, not all caregivers respond to group parent training. The purpose of this paper is to describe a study examining the use of contextualized coaching with a group parent training with two high risk families. Maternal caregivers from both families participated in a group based parent training using a modified version of the Incredible Years curriculum provided by the local early intervention agency. A multiple baseline across behaviors research design was used to examine the relation between contextualized coaching and positive parenting practices. Contextualized coaching consisted of individualized, performance-based feedback, live modeling, and material support. Results indicate contextualized coaching was functionally related to increases in positive care-

giving practices. Results are discussed in terms of applications for practice and future research in parent training.

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To my supporting husband who always believes in me.

TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION	1
Prevalence	1
Conceptual Framework for Parent Training	3
Transactional Approach	3
Applied Behavior Analysis	3
Family Determined Interventions	6
Parent Training Interventions	7
Group Parent Training	8
The Incredible Years Curriculum	16
Current Project	29
II. METHODS.....	31
Participants.....	31
Adults.....	31
Children.....	32
Settings.....	32
Group Caregiver Training	32
Baseline and Contextualized Coaching	33

Chapter	Page
Research Design.....	34
Depended Measures	35
Group Caregiver Training.....	37
Baseline.....	38
Contextualized Coaching.....	38
Data Collection	40
Interobserver Agreement	40
Treatment Integrity	41
III. RESULTS	42
Target Behaviors.....	42
Responsive Play.....	42
Labeled Praise	45
Limit Setting	45
Handling Challenging Behaviors.....	45
Follow-Up.....	45
PSOC	46
ASQ:SE.....	47
SEAM	47
Caregiver Attendance.....	47
Social Validity	47

Chapter	Page
IV. DISCUSSION.....	50
Limitations	53
Applications for Practice	55
Future Research	56
REFERENCES	58

LIST OF FIGURES

Figure	Page
1. Graphic Depiction of the Transactional Model	4
2. Prevention Pyramid	9
3. Daily Feedback Form.....	39
4. Brenda's Target Behaviors	43
5. Marcy's Target Behaviors.....	44

LIST OF TABLES

Table	Page
1. Caregiver Demographic Information.....	32
2. Child Demographic Information.....	33
3. Child Assessment Information.....	34
4. Operational Definitions of Parent Behaviors.....	36
5. Interobserver Agreement	40
6. Group Fidelity Checklist.....	41
7. Percentage of Intervals with Target Behaviors at Baseline and Intervention.....	46
8. Percentage of Intervals with Target Behaviors at Follow-Up	46
9. Assessment Information.....	48
10. Caregiver Concerns on the SEAM.....	49
11. Social Validity	49

CHAPTER I

INTRODUCTION

Prevalence

The estimated rates of children with challenging behaviors and conduct disorders in the general population vary widely across research studies. For example, Qi and Kaiser (2003) estimated between three percent and six percent of children in the general population exhibit challenging behaviors before kindergarten and about 30% of children are from low income families. Hutchings et al. (2007) estimated between five percent and ten percent of children between the age five and 15 years old met the criteria of conduct disorder. As with Qi and Kaiser, they noted higher rates among single parent families and financially disadvantaged families. Gross, Fogg, Garvey, Julion, Webster-Stratton, & Grady (2003) reported that conduct disorder affects between seven percent and 35% of preschoolers, again, with higher rates among children from financially disadvantaged families.

Research consistently points to a higher prevalence rate for children with developmental disabilities than children with typical development (Erbas, 2010); however, the exact prevalence rates also vary (Emerson, 2003). Many children with disabilities exhibit problem behaviors as a primary or secondary condition to a developmental disability (Jolivette, Gallagher, Morrier, & Lambert, 2008). Emerson (2003) estimated that children with disabilities are seven times more likely to meet the criteria of conduct disorder. Roberts, Mazzucchelli, Studman, & Sanders (2006) reported

between 41% and 64% of preschool children with disabilities display severe problem behaviors. Gavidia-Payne and Hudson (2002) reported similar rates. These variations may be due to sampling procedures or diagnosis criteria (McIntyre, 2008). However, over time and across studies, prevalence rates consistently point to higher rates among children with disabilities.

This high prevalence has influenced both research and policy making. In the past decade, several studies examined what types of interventions are most effective preventing and reducing severe problem behaviors (Dunlap et al., 2006). The primary means of prevention is early identification (e.g., Ages and Stages Questionnaire: Social-Emotional-ASQ:SE; Squires, Bricker & Twombly, 2002; Squires & Bricker, 2007). When young children with or at risk for developing challenging behaviors are not identified early and given the appropriate intervention, their problems are more likely to become severe and persist over time. Furthermore, children with challenging behaviors are at a higher risk for academic failure and poor outcomes (Dunlap et al., 2006; Erbas, 2010). Although systems (e.g., Child Find) and tools (e.g., ASQ:SE; Squires et al., 2002) for early identification are widely available, the identification and provision of specialized services to address challenging behaviors remains inadequate (Dunlap et al. 2006).

Recommended practices promote the use of early screening measures and the provision of services as early as possible for children with challenging behaviors (DEC, 2007; Dunlap et al., 2006; Squires & Bricker, 2007). This approach is consistent with the universal prevention model (Brotman, Gouley, Chesir-Teran, Dennis, Klein, & Shrout,

2005) and stresses the importance of working with young children and their families (Sharry, Guerin, Griffin, & Drumm, 2005; Squires & Bricker, 2007; Vaughn, Dunlap, Fox, Clarke, & Bucy, 1997). Research consistently demonstrates a strong, direct relation between parenting communication styles, healthy development, and prevention of disruptive behaviors. Thus, the effects of a high quality early environment and early intervention to prevent and reduce problem behaviors are essential (Brotman et al., 2005).

Conceptual Framework for Parent Training

Transactional approach. The transactional approach views development as a result of interactions between the child and her environment. This model of development stresses the reciprocal nature of early experiences, particularly the child's early social environment, which is largely facilitated through the child's primary caregivers. This approach considers the child's impact on her social environment and the reverse (i.e., the environmental impact on the child), as primary factors in early development (Sameroff & Fiese, 2000). As such, family context and positive experiences within the child's immediate environment and the child's reactions to the context and early social experiences become crucial for typical development (McIntyre & Phaneuf, 2008). The cyclic nature of the transactional model is often depicted with two arrows pointing towards each other (See Figure 1).

Applied behavior analysis. Recent parent training research indicates that parent knowledge of applied behavioral principles is the most important factor associated with positive outcomes over time (Joseph & Strain, 2003; Lucyshyn, Dunlap, & Albin, 2002; Matson, Mahan, & LoVullo, 2009). Applied behavior analysis (ABA) is one of three



Figure 1. *Graphic depiction of the transactional model.*

of behavior analysis. In general, behavior analysis uses scientific principles to examine behavior. However, with *applied* behavior analysis, the focus is on examining *socially important* behaviors of concern to caregivers in natural settings (Cooper, Heron, & Heward, 2007). ABA uses scientific principles to increase socially important behaviors and decrease maladaptive behaviors. Furthermore, the focus is on using strategies or intervention practices in natural settings by primary caregivers (e.g., parents or teachers). Specific strategies based on the principles of ABA include: a functional approach to challenging behaviors, shaping, prompt fading, token economies, differential reinforcement, planned ignoring, teaching generative skills, and programming common stimuli. For example, a functional approach to challenging behaviors teaches parents and caregivers to use direct and indirect assessments to determine the function (i.e., what the child is attempting to communicate) of the challenging behavior (i.e., obtain or avoid) and develop interventions to teach functional communication skills to replace the challenging behavior (Cooper, Heron, & Heward, 2007).

Evidence-based parent training curricula emphasize ABA principles and stress the importance of positive parent- child interactions and generalization of skills across settings. Research indicates that maintenance of positive parenting practices over time is

more likely when the basic principles of applied behavior analysis are verbally taught, modeled, and rehearsed in role play (Harvey, Boer, Meyer, & Evans, 2009; Kaminsky, Valle, Filene & Boyle, 2008; Matson et al., 2009). The three most commonly used evidence-based parent-training curricula focus on principles of applied behavior analysis (Matson et al., 2009). These are Parent Plus Program, The Stepping Stones Triple P Program (SSTP), and Incredible Years. Parent Plus Program is a group-based training that was adapted in 2007 for preschool age children with disabilities. Parents who participated in the Parent Plus Program improved their use of positive parenting practices and showed maintenance at a ten month follow-up. SSTP is a behaviorally oriented program with an emphasis on social skills learning. Parents' use of positive parenting practices maintained for one year after participating in the SSTP. The Incredible Years program teaches parents child-directed play, praise, limit setting, reinforcement, and replacement skills. The purpose of teaching these strategies is to increase positive interactions between parents and children and provide parents with tools to reduce challenging behaviors (Matson et al., 2009, Webster-Stratton, 2008)

Harvey et al. (2009) conducted a meta-analysis for treatment validity and standards for practice within intervention research addressing challenging behaviors. They identified 142 articles published between 1998 and 2006 with three hundred participants involved in the identified studies. Interventions in this study were analyzed to examine different aspects of change using an effect size algorithm. Data from this comprehensive analysis support the growing research and practice of interventions based on applied behavior analysis (Dunlap et al., 2006). Evaluation of patterns of interventions

indicated that antecedent based changes (e.g., using visual prompts or verbal cues) were most effective with disruptive and self-injurious behaviors. Contingency management (e.g., systems of reinforcement or token economies) resulted in a reduction of inappropriate social behaviors. Skill replacement (e.g., teaching replacement behaviors) was the most effective with all categories of behaviors (i.e., self injury, stereotypic behaviors, disruptive and inappropriate behavior). Furthermore, the authors found that interventions based on function based assessments produced larger effects. This suggests that programs that address or prevent challenging behaviors should include principles of applied behavior analysis (i.e., a functional approach) with an emphasis on teaching children socially important replacement skills (Harvey et al., 2009).

Family determined interventions. Caregivers spend the largest amount of time with children and are the primary model for social interactions (Bruder, 2000). Current research stresses parent-child interactions are a primary predictor for developing behavior problems (Reid, Webster-Stratton, & Baydar, 2004; Webster-Stratton, Reid & Hammond, 2004). The complex nature of these relationships and the importance of parent wellbeing should be considered when designing and implementing prevention programs (Matson et al., 2009). Caregivers provide the greatest influence on child development. The primary goal of early intervention is to enhance the families' sense of confidence, ability to parent their children, and competency in supporting their development (Bruder, 2000; Gallagher, Rhodes and Darling, 2004). In fact, parental stress is often associated with negative outcomes (Erbas, 2010). Interventions with young children should actively involve *and support* caregivers to enhance child development across domains.

“Caring for a child with a developmental disability can be a daunting and challenging experience for parents. These parents spend more time involved in direct care-giving tasks with their children than parents of typically developing children” (Plant & Sanders, 2007, p.362). Families with children with developmental delays experience more stress and dysfunction (Baker, Blacher, Crnic, & Edelbrock, 2002; McIntyre, 2008). One possible factor exacerbating stress and dysfunction is the presence of challenging or maladaptive behaviors. As previously mentioned, prevalence estimates indicate that children with disabilities demonstrate higher rates of challenging behaviors than typical peers (e.g., Baker et al., 2002). Furthermore, delays in motor planning, cognitive skills, and communication abilities may impair communication and social skill development. These impairments increase the likelihood of challenging behaviors, and have negative effects on parent-child interactions and the whole family system.

Parent Training Interventions

For the past 30 years, the field of early intervention has examined the role of parental styles and practices on children inappropriate behaviors and outcomes (Kazdin, 1997). Negative parent-child interactions, coercive parenting, harsh discipline, criticism, and ineffective limit setting have been shown to have a deleterious impact on the development and persistence of children’s conduct problems (Kazdin, 1997; Nicols, 2009; Scott, Sylva, Doolan, Price, Jacobs, Crook, & Landau, 2010; Sharry et al., 2005). Successful interventions focus on facilitating positive parent-child interactions to improve child adaptive functioning. Effective programs teach caregivers appropriate strategies for changing their own behaviors and in turn improve child behaviors (Gross et

al., 2003; Erbas, 2010; Reid et al., 2004; Roberts et al., 2006). Intervention delivery models include individual parent-child training (Beauchaine, Webster-Stratton, Reid & Hammond, 2004; Lundhal, Risser, & Lovejoy, 2006; Webster-Stratton, 1984), group parent training (Brotman et al., 2005; Nicols, 2009; Plant & Sanders, 2007; Roberts et al., 2006), combined parent-child training, and teacher training (Powell, Dunlap & Fox, 2006; Webster-Stratton et al., 2004; Webster-Stratton & Hammond, 1997). Parent training programs have been implemented for both prevention and treatment (McIntyre & Phaneuf, 2008). The next section provides an overview of group parent training programs.

Group parent training. Numerous programs have been developed to prevent and reduce challenging behaviors in young children. Educational systems have adopted the model of prevention and intervention from the public health sector. The model is represented by a pyramid and provides a hierarchical framework for prevention and intervention activities (Powell et al., 2006). The model includes four levels (See Figure 2). The first two levels are universal and address support needed by all children, building positive relationships and prevention activities in home and classrooms settings. These levels address children's need for developing positive relationships to build their social emotional competence. They include strategies to promote secure attachment and positive relationships. The third level targets young children at risk for developing behavior problems. This level addresses individualized strategies for implementation within natural contexts to enable teachers and caregivers to increase positive interactions and teach appropriate social skills. This level also includes strategies for caregivers such as

group training and individual coaching for parents across settings. The focus is to provide parents with an opportunity to obtain contextual feedback, practice skills, and problem solve in natural situations.

The top level of the pyramid addresses the needs of children with persistent challenges or families with several risk factors who might need more intensive, individualized intervention. Interventions at this level often include multiple components. One example of a multiple component intervention is the Incredible Years parent and teacher series and child focus intervention (Powell et al., 2006; Webster-Stratton et al., 2004).

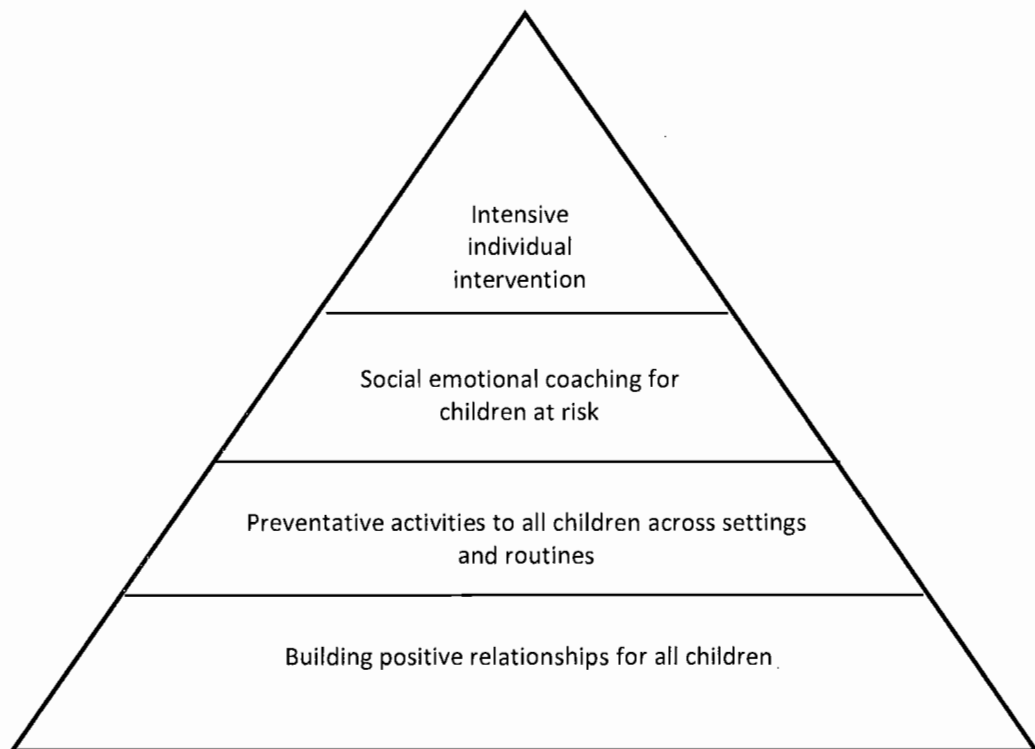


Figure 2. *Prevention pyramid (adapted from Powell, et al., 2006).*

The increased prevalence of young children exhibiting problem behaviors has influenced national policy. No Child Left Behind (NCLB) and Part C of the Individuals with Disabilities Education Act (IDEA) stress the need to translate research findings to practice in natural settings (Dunlap et al., 2006). Over the past decade researchers have examined a wide range of interventions to implement in natural settings. Syntheses of these interventions indicate that evidence-based interventions are based on principles of applied behavior analysis and social learning theory (Conroy, Dunlap, Clarke, & Alter, 2005; Lundhal et al., 2006). For example, Conroy et al. (2005) conducted a critical review of positive behavior interventions with children age six or younger. They examined experimental studies with at least one participant younger than six years of age. Seventy-three articles were identified as meeting the inclusion criteria. The authors found that 79% (n=58) of the studies included young children with disabilities, which supports current data on higher incidence among this population (Emerson, 2003; Hutchings et al., 2007). Sixty-six percent (n=48) of studies implemented instructional interventions (i.e., teaching children replacement skills) including: functional communication skills, problem solving skills, and alternative adaptive behaviors. More than two thirds (n=29) of studies were conducted in community school settings, 26% (n= 19) at children's homes, and 22% (n= 16) in special education settings. The authors concluded that this literature was limited by a lack of systematic programming and measurement for generalization and maintenance and insufficient measurement of social validity (Conroy et al., 2005).

Kaminski et al. (2008) used meta-analysis methods to synthesize results from 77 evaluations of parent training programs designed to reduce challenging behaviors in children younger than seven years of age. The study indicated a significant positive impact on changing parental behaviors and preventing the development of disruptive behaviors across parent training programs. Parent training that included teaching parents strategies for increasing positive parent-child interactions and required practice of new skills were related to a significantly stronger positive impact on child and parent outcomes. Also, a focus on consistency in discipline practices was related to a reduction in challenging behaviors. Their analysis also suggested that parent's engagement and active learning (e.g. modeling, role play and home work practicing new strategies) were better predictors for positive outcomes than the mere use of standard manuals(Kaminski et al., 2008).

Lundhal et al. (2006) also conducted a meta-analysis of parent training on reducing challenging behaviors in young children. They included 63 studies in their review (i.e., 36 group training and 18 individual training). The purpose of their analysis was to compare the effect of behavioral parent training and non-behavioral programs on disruptive child behaviors and parental behavior. They examined two child outcomes, (i.e., child behavior and child adjustment) and three main parent outcomes (i.e., parent behavior, parents' perception of parenting, and general adjustment). The authors found that single parent families demonstrated less positive outcomes compared with two caregiver households. Results indicated that family adversity often presents a barrier for positive changes in parental behavior. These findings suggest that for financially

disadvantaged families, individual parent training was significantly related to better outcomes (for both parent and child behaviors) than group training. Individually delivered intervention can be better tailored to the unique conditions of a given family. They reported that only four studies of the non-behavioral training included follow up data; thus, more information is needed to conclude superior effectiveness of behavioral training. The authors emphasized that there should be greater focus on generalization and maintenance in future research and practices (Lundhal et al., 2006).

Conversely, DeRosier and Gilliom (2007) found no differences between single group training (e.g., parent training) and combined training (e.g., parent combined with child training). They conducted a randomized trial of 42 families randomly assigned to one of three conditions: parent training, parent and child training and a control group. Parent training followed the Parent Guide for Social Skills curriculum. The model was based on cognitive-behavior theory. Their data suggested that outcomes were similar for conditions, parent training and parent training combined with child group. They reported moderate to large effect sizes for both parent and child outcomes over time.

Plant and Sanders (2007) utilized an adapted version of the Stepping Stones Triple P- parenting program. Seventy-four families were randomly assigned to one of three conditions: Standard Stepping Stones Triple P group (SSTP-S), Stepping Stones Triple P-Enhanced (SSTP-E), and a waiting list. The enhanced program (SSTP-E) included additional training designed to support parents in caring for a young child with disabilities. The training focused on minimizing family risk factors, coping with stress, collaborating with professionals, time management, and enhancing social supports. Both

treatment groups showed significant progress in child behavior based on parent report. Sixty-seven percent of children in the SSTP-S and 77% in the SSTP-E demonstrated a 30% reduction in negative behavior. Children in both training groups no longer met clinical criteria for behaviors disorders. At a one-year follow-up, there was no evidence for superiority of the SSTP-E over the standard group. These findings support current knowledge that group-based parent trainings using a behavioral framework are effective (Harvey et al., 2009 & Plant & Sanders, 2007).

Niccols (2009) examined short-term outcomes of a parent group called COPEING with Toddler Behavior. The purpose of this study was to examine the COPEING effectiveness as a preventive program with non-clinical, at-risk toddlers. Parents in this program identified errors and assessed their own responses using program video clips. COPEING with Toddler Behavior is based on active learning approach adopted from the Coping Modeling Problem Solving Approach. Similar to the Incredible Years BASIC program (Webster-Stratton, 2008) this model focuses on parenting styles and strategies to prevent the development of disruptive behaviors in toddlers. In a randomized controlled study the author examined the effect of the COPEING program on child and parent behaviors. Findings from this study are consistent with previous data that supports group-based training (Plant & Sanders, 2007). Results from this pilot investigation indicated significantly lower scores on the Eyberg Child Behavior Inventory Problem Scale (Eyberg & Pincus, 1999) and a significant improvement in parent-child interactions. The author suggested that COPEING with Toddlers Behavior parent group is consistent with

prevention programs for families with children at risk for severe behavior problems (Niccols, 2009).

A recent study conducted by Scott et al. (2010) in the United Kingdom examined the effect of the SPOKES project. The project targets four risk factors: hostile parenting style, symptoms of conduct disorder, attention deficit hyperactivity disorder (ADHD) symptoms, and poor reading skills. This group project was adapted from the Incredible Years school age program (i.e., video modeling with a focus on child cooperation, praise and rewards, handling misbehavior, natural consequences, and time out). They also included a child literacy component (i.e., relating the text in books to children's daily experiences by mutual parent- child discussion). Participants were randomly assigned to the SPOKE project or to a control group. After the intervention, parents reported they spent more time engaging in play with their children. Direct observations of parents in the intervention group showed higher parental responsiveness, higher rates of positive attention communicated through praise, and less hostility. Antisocial behaviors dropped from the 81st to 61st percentile. Parents reported improvement of ADHD symptoms with a moderate effect size, diagnosis of oppositional disorder dropped from 60% to 31%, and reading skills increased from the 40th percentile to the 75th in average. These results suggest that manipulating important aspects of a child's environment can have measurable effects on challenging behaviors. The primary limitation this study was attrition and attendance. Only 40% of parents with children identified as at risk took part in the study. Parents reported that the delivery model (one morning a week) and the distant location limited accessibility and effectiveness. Also, a quarter of the parents did

not complete the follow-up measures. Hence, despite the evidence of efficacy, group models of parent training are often limited by attendance and accessibility (Scott et al., 2010).

Although the plethora of research on parent trainings provides sound evidence for their usefulness with parents of young children with challenging behaviors, not all families respond and benefit from these programs (McIntyre & Phaneuf, 2008). Scott and Dadds (2009) reported that between a quarter and a third of the families and their children do not benefit from evidence-based group training programs. Many parent factors (e.g., education level, mental health, marital, socioeconomic status and stress), child factors (e.g., age, severity and duration of behaviors and developmental disabilities), and treatment delivery models (Beauchaine et al., 2005; Lundhal et al., 2006; Roberts et al. 2006) influence treatment outcomes. McIntyre and Phaneuf (2008) suggested a three-tier problem solving approach to balance program intensity with family specific characteristics and needs. The first tier utilizes self-administrated programs. This type of program includes manuals or audiovisual materials, to promote accessibility for as many families as possible. The second tier utilizes group-based training, it offers more intensive support. This delivery model provides feedback from therapist and other parents to increase parental self-competency. The third tier utilizes individual programs offering one-on-one direct feedback. Individual sessions provide parents with an opportunity to problem solve with the therapist within their unique context while also participating in the group training. Research suggests that families experiencing poverty or low socioeconomic status benefit more from individual than group-based intervention

(Lundhal et al., 2006). The model suggested by McIntyre and Phaneuf (2008) offers an approach to support families who do not benefit from traditional parent training programs (Scott & Dads, 2009).

“Family involvement in the planning and implementation of interventions facilitates durable reductions in challenging behaviors of young children” (Dunlap et al. 2006, p. 38). Interventions that provide parents with opportunities to practice behavioral strategies (e.g., positive reinforcement, praise, and following natural consequences) are more likely to be effective (Conroy et al., 2005; Kaminski et al., 2008). Research suggests that parent training can result in positive change for both parent and child (Taylor, Schmidt, Pepler, & Hodgins, 1998). Randomized trials (Brotman, Klien, Kamboukos, Brown, Coard, & Sosinsky, 2003; Hutchings et al., 2007; Reid et al., 2004), follow up studies (Beauchaine et al., 2005; Gardner, Burton, & Klimes, 2006) and comprehensive meta-analysis (Harvey et al., 2009; Lundhal et al. 2006) suggest that group parent trainings are effective for reducing and preventing child challenging behaviors. One of the most researched parent training programs is the Incredible Years curriculum series developed by Carolyn Webster-Stratton (1982, revised in 2001 and 2008) at the University of Washington. The next section provides a literature review of the Incredible Years series and the research to support it.

The Incredible Years Curriculum

The Incredible Years series was first developed by Webster-Stratton in 1982 and revised in 2001 and 2008. The series includes parent, teacher, and child programs. Parent training curricula include the Baby program, Toddler program, BASIC Early Childhood

program, and the school readiness program. Teacher training includes five programs that address classroom management. The Dina Dinosaur training offers a comprehensive class based curriculum to support children's social- emotional development. All training programs can be used as prevention or intervention programs (Webster-Stratton, 2008).

The Incredible Years BASIC is a parent training curriculum designed to prevent and reduce challenging behaviors in young children. The curriculum targets several populations: parents with children ages three to six, parents of children with conduct behavior problems and attention deficit disorder between ages three to six, parents at risk for abuse or neglect, foster and adoptive parents, teenagers participating in family life courses, and professionals who work with children (e.g., social workers, therapists, teachers, nurses, physicians, child protective providers and daycare providers; Webster-Stratton, 2008).

The Incredible Years addresses each level of intervention according to the risk pyramid. The first three levels of the pyramid are universal and are designed to prevent challenging behaviors and the development of behavior disorders in young children. The two highest levels address intervention for parents whose children demonstrate symptoms of or are diagnosed with behavior disorders (Incredible Years Programs, 2009).

Based on social learning theory and principles of applied behavior analysis, Webster-Stratton carefully designed video vignettes that address communication and behavior principles to promote positive parent-child interactions. The vignettes follow the five-level prevention pyramid. The first level focuses on child-directed play. This level addresses children's need for positive attention during play. Parents are taught to follow

their child's lead in play to promote language and social interactions (Webster-Stratton, 2008). Child-directed play is the universal level. It is viewed as the preventative tier, as child-directed play occasions more positive social and communicative interactions between children and their caregivers. Also, child-directed play has practical value; play is a practical alternative to maladaptive behaviors (Barton & Wolery, 2008).

The second level teaches parents to use differential praise as a celebration of expected behavior. The first two levels lay the foundation for positive interactions. "These programs show parents ways to play with children and to use praise and rewards to encourage cooperation, foster creativity, build self esteem, and strengthen pro-social behaviors" (Webster-Stratton, 2008, p.17). Teaching replacement skills are emphasized throughout the training phases. Parents are given several opportunities to practice phrasing negative behaviors positively.

The third level emphasizes the importance of effective limit setting; this part of the curricula explains the importance of clear expectations (e.g., house rules) and consistent follow through to decrease the likelihood of challenging behaviors. The fourth and fifth levels offer parents strategies for delivering effective consequences when challenging behaviors occur. These strategies are based on two main principles. The first principle focuses on ignoring undesired behavior. Group leaders present the role attention has on decreasing undesired behaviors and increasing positive ones. Parents have opportunities to discuss the importance of consistent consequences. The second principle focuses on using natural consequences to teach children replacement skills The program

provides parents strategies for using time out to help children calm down rather than as a punishment (Cooper et al., 2007; Webster- Stratton, 2008).

The Incredible Years curriculum content is delivered via several different methods. The primary teaching method is video modeling, which is used to increase attention and accessibility. Also, social modeling theories suggest that parents are more likely to alter their behaviors to promote positive parent-child interactions after watching examples of such interactions (Sharry et al., 2005; Webster- Stratton, 1981, 1982). The video vignettes incorporate parents and children of different ages, sex, background, ethnicity, socioeconomic status, and family structure and display a range of everyday situations and routines. The purpose of the vignettes is to provide parents with the opportunity to identify their own responses in similar situations and to reflect on their child's responses. Thus, the video vignettes lead to a group discussion and problem solving (Webster-Stratton, 1981, 1982, 2008).

The second component of the curriculum is defined by the author as a collaborative process. In this model, the leader is not the expert. Instead, the group leader and parents have a reciprocal relationship. They share experiences, discuss self-reflections, reframe video vignettes to their own lives, and engage in role playing exercises. The group leader refers to parents as the primary experts in relation to their own children to encourage internalization of the core concepts and maintain them over time (Webster-Stratton, 2008). Parents are offered weekly homework practice activities to promote maintenance of skills. Homework includes reading materials, watching CDs

observational (e.g., observing child behaviors across daily routines) and reflection activities (Webster-Stratton, 2008). These activities provide opportunities for parents to discuss which strategies are easier to implement and identify generalization components.

The Incredible Years series has been substantially studied since it was first published. Two randomized control studies conducted by Webster-Stratton in 1981 and 1982 examined the effects of the training on parenting practices. Results indicated that video modeling procedure was significantly related to improvements in specific parenting behaviors. These results supported the assumption that group training using video modeling is cost effective, because it can be used to increase accessibility, particularly for families with children with challenging behaviors. However, the participants were all Caucasian, middle-upper class, and parents reported at least four years of college education. Nonetheless, this sample was considered representative of nonclinical, self-seeking parents. Subsequent studies have found the Incredible Year program was effective for families from a range of racial and economic backgrounds (Webster-Stratton, 1981, 1982, 2008).

Over the years, research has shown higher prevalence of risk factors among low-income families (Gardner et al., 2006; Gross et al., 2003; Hutchings et al., 2007; Powell et al., 2006). Children from low socioeconomic backgrounds are more likely to exhibit problem behaviors at preschool age (Qi & Kaiser, 2003). Qi and Kaiser identified risk factors related to the development of behavior problems in preschool children from financial disadvantaged families. Their results are framed within a transactional model of child development. For example, infants classified with disorganized attachment are less

likely to experience positive interactions with parents and subsequently at high risk for developing severe behavior problems by the age five. Temperament and prematurity were also found as a predictor for later challenges. For example, the study showed that “parents of preterm children reported more hyperactivity by their children than did parents of full-term children” (p. 193). The authors found that children from low-income families have an overall lower IQ level which associates with higher rates of behavioral problems. Studies also indicated that children from low-income families present with less sophisticated social skills. The authors identify the connection between higher Child Behavior Check List (CBCL; Achenbach, 1991a) total scores and lower social skills (Qi & Kaiser, 2003).

The alarming increasing rates of young children who meet the diagnostic criteria for conduct disorder shifted national focus from intervention to prevention (Dunlap et al., 2006). Effective prevention programs identify and minimize risk factors associated with aggressive behaviors. Harsh parenting, high stress, and negative interactions are indicators of high risk for developing behavior disorders. In repeated randomized trials, the Incredible Years has been shown to be a cost effective prevention approach that addresses risk factors associated with low-income. Compared with clinical-based individual therapy and combined parent training with child and teacher training, parents assigned to the Incredible Years group-based training showed significant improvement immediately after treatment and maintained these improvements at six month and one-year (Taylor et al., 1998; Webster-Stratton et al., 2004).

In the past decade researchers have evaluated the Incredible Years curriculum as a prevention program with families experiencing poverty and other risk factors. Webster-Stratton and her colleagues examined the parent program training as a prevention program for multiethnic, enrolled in Head Start programs. In their study Reid et al. (2004) included 14 centers (n=882 families) in the experiment group between 1993 and 1997. Mothers and children were classified as *indicated* if mothers made more than ten correction statements during home observation and if the child scored more than one standard deviation above the mean on the Child Behavior Checklist Teacher Report Form (Achenbach, 19991b). Results suggested that the Incredible Years can be used as a prevention program for conduct behaviors by improving parent and child behaviors. Data showed a correlation between mother's attendance and their use of critical statements. Forty percent of mothers in this experiment were defined as non-attendees, meaning that they attended less than three sessions. The authors suggested that future research should examine barriers for attendance and attrition (Reid et al., 2004).

Gross et al. (2003) examined the curriculum efficiency with parents of toddlers in a low-income, urban community. Eleven day-care centers were randomly assigned to one of four conditions: parent training, parent and teacher training, teacher training, and control group. Parent behaviors measured in this study included: praise, positive parent behavior, affect, use of indirect and direct commands, critical statements, and negative physical behavior. Children's rate and severity of behaviors were measured by parent and teacher report, and direct observation. All parents who received parent training showed a significant increase and maintenance of positive strategies at post-intervention and at a

one-year follow-up. Immediately at post-intervention, over 40% of children categorized as high risk at baseline improved to the low risk category and close to 70% of the children demonstrated improvement at a one year follow-up. Children whose parents received parent training only demonstrated significant improvement in classroom behavior suggesting that parent training alone may promote generalization of child behaviors. The authors reported a dropout rate of 30%, which is similar to previous studies (Gross et al., 2003; Reid et al., 2004; Scott et al., 2010). They also stressed that future research should focus on strategies for improving parent attrition.

Brotman et al. (2003) provided further support for the Incredible Years as a preventative intervention for families with multiple risk factors. The authors used Webster-Stratton's curriculum with low-income preschoolers with a family history of antisocial behaviors. Parents in the experimental group received home visits to help generalize skills taught in the group. Home visits provided an opportunity for parents to practice positive discipline and child-directed play within the family context in order to increase parents' competencies. Parents in the experimental group showed increased responsiveness and child externalizing behaviors decreased over time.

Brotman et al. (2005) examined the use of the Incredible Years as a prevention program with low-income, preschool siblings of children with conduct or behavior disorders. This study targeted population with multiple risk factors: familial risk factors for antisocial behavior and financial disadvantage. Ninety-nine children and their families were randomly assigned to a control or experiment group. The experiment group provided parents with multilevel group intervention for parents and children following

the Incredible Years curriculum once a week (two hours) over 22 weeks with ten biweekly 90 minutes home visits. Low cost activities were used to facilitate parent-child interactions at the end of each group session. These activities provided parents an opportunity to practice skills with direct feedback and reinforcement by the group leaders. Home visits were designed to help parents apply strategies discussed in the curriculum to fit their environment and needs. Data showed high parental satisfaction with this model which resulted in high attendance rates (e.g., all participants attended more than half of group sessions and all home visits). Parents and children demonstrated clinical benefits reducing negative parenting and increase in children's social competence. These outcomes provide evidence that this model can result in long-term preventative effects. Future research should investigate which added component had the most influence (i.e., child group, direct feedback at the end of each session, or home visits) to better understand the essential components (Brotman et al., .2005).

Hutchings et al. (2007) conducted a randomized trial to evaluate the implementation of the Incredible Years parent curriculum with low-income families receiving Sure Start services in Wales, United Kingdom. Results indicated reduced criticism among participants and a significant reduction in child deviance for families in the experiment group. Parents reported lower level of stress and depression, and higher competence level. These findings support previous research (e.g. Gross et al., 2003).

Although few studies have investigated the prevalence of conduct disorder among children with disabilities, findings suggest that children with development delays are more likely to develop severe behavioral disorders than typically developing children

(Emerson, 2003). Parent support and training become crucial for families of children with disabilities because the child's disabilities may impose an additional stressor that may impact the family structure (McIntyre, 2008). Research has continually emphasized the high association between inappropriate or negative parent-child interactions and the development of challenging behaviors and severe behavior disorders (e.g., Jones, Daley, Hutchings, Bywater & Rames, 2007; Reid et al., 2004). Previous research on the Incredible Years curriculum concluded that this program is efficient in reducing child behavior problems by increasing parent positive discipline strategies, primarily for low-income families with typical developing children.

In the last several years McIntyre (2008) has examined the efficiency of the Incredible Years for families with young children with disabilities. Although very little research was done on the utility of the Incredible Years with parents of children with special needs, McIntyre hypothesized the behavior principles underlying the curriculum would be appropriate with slight modifications for this population. The primary modification she found was to include a discussion about the adaptations for children's developmental level, needs, and interests. Results from her study suggest that the Incredible Years program yields similar results to previous findings with low-income families. Focusing on improving parenting practices led to an increase in positive parent-child interactions and positive child outcomes over time. Parents reported that the adaptations to the curriculum during weekly group sessions were helpful. These results support past research suggesting group-based parent training is a successful intervention as well as cost effective (Plant & Sanders, 2007).

Additionally, McIntyre (2008) conducted the first randomized control trial evaluating the Incredible Years as a training program for parents of children with developmental delays. Twenty-one families with preschool children eligible for special education services in New York State were randomly assigned to a control or experimental group (i.e., receiving a 12-week parent training using the Incredible Years program). Preliminary findings indicated that early intervention using the Incredible Years program can have a positive impact on parent practices for families with children with developmental disability. Further replications are needed to confirm these findings and broaden the use of this program by special education agencies.

Jones et al. (2007) examined the efficacy of the Incredible Years curriculum with families with children exhibiting externalized behaviors and hyperactivity symptoms. Seventy-nine families with children that exhibited scores above cutoff on the Eyberg Child Behavior Inventory (Eyberg, & Pincus, 1999) were randomly assigned to a waiting list or a treatment group. Post-treatment results showed that 58% of children in the experiment group were below clinical concern regarding hyperactivity symptoms. These results support previous findings that parent training and specifically the Incredible Years program are related to positive child and family outcomes (McIntyre, 2008).

Lees and Ronan (2008) conducted a study with four single mother families with children diagnosed with ADHD in New Zealand. The authors used a multiple baseline design to examine the effects of the Incredible Years parent training curriculum on the behaviors of parents of children with ADHD. The training involved two-hour weekly sessions over 20 weeks with a booster session at two month post-treatment and a four

month follow-up. In the effort to keep mothers engaged, the group leader helped mothers set individual weekly goals and provided feedback accordingly. Therapists conducted a weekly phone call to problem solve individual barriers. The therapists also conducted home visits during baseline condition to provide an opportunity to observe the families at home. All four mothers completed the program with high attendance rate (attendance at more than sixteen sessions). Mothers monitored child behaviors daily and reported both positive and negative behaviors. Results indicated all four children exhibited increased rates of positive behaviors. Further, two children demonstrated a steady decrease in negative behaviors over time. Mothers exhibited improvement in their interactions with their children on both self-report questionnaires and direct observation. Future research should examine the impact of this training with single mothers and families with additional risk factors (e.g., children diagnosed with other disabling conditions; Lee & Ronan, 2008).

The Incredible Years was designed for typical developing children and their parents. In an effort to prevent maladaptive patterns of parent-child interactions, Phaneuf and McIntyre (2007) used a multiple baseline design to evaluate the extent to which individualized video feedback enhanced the implementation of skills discussed at group for twelve families of young children with disabilities. Parents attended a group training for two and a half hours, once per week, over 11 weeks and received weekly video based feedback. Data were collected during weekly 15-minute videotaped observations that included ten minutes of play, two minutes of clean up and three minutes of a structured activity. The content of the feedback sessions followed the parent group curriculum (i.e.,

child-directed play, praise and reward, limit setting, and handling misbehavior). Parents' inappropriate behaviors significantly decreased after treatment; thus, the treatment was functionally related to decreases in maladaptive parenting practices. Phaneuf and McIntyre (2007) provided preliminary evidence for adapting this curriculum for mothers of children with developmental delays. Furthermore, their results suggest the combination of group training with individualized-based video feedback could be used as an early prevention program for parents of children with disabilities who are at risk for developing persistent behavior problems.

In summary the Incredible Years appears to be an effective parent training program. The Incredible Years curriculum has extensive evidence for use with families with a variety of risk factors. However, research on the Incredible Years is limited in several ways. First, few studies have examined increases in positive parental practices, most studies has examined decreases in negative parent behaviors. Further, none of the studies examined an increase in positive parenting practices with parents of children with disabilities. Second, few studies have examined adding individualized components to the group training. McIntyre and Phaneuf (2007) found that video feedback is effective with families with children with disabilities. However, this type of feedback might be costly and less accessible to practitioners. Third, current research studies on professional development in early childhood indicates that group trainings are more effective with follow-up coaching including feedback and practice (e.g., Casey & McWilliam, 2008; Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005). However, few studies have systematically examined the use of individualized, focused coaching during home visits

with families of children with disabilities. These families are likely to already receive coordinated special education services including weekly or biweekly home visits by early intervention practitioners or special education teachers. Thus, training early interventionist practitioners and special education teachers to conduct coaching with parents participating in group training might promote generalization, maintenance, higher rates of attendance, and a reduction in attrition. Finally, few studies have examined the social validity of group trainings for caregivers. Social validity measures are essential for understanding if primary caregivers can implement interventions in natural settings and if the interventions produced therapeutic changes in the behaviors of concern for the child and their primary caregivers (Kennedy, 2005).

Current Project

The current project addressed limitations in the literature by examining the effects of home visiting with contextualized coaching (individualized performance based feedback, modeling, role play, and discussion) on positive parenting practices of parents attending a group training using the Incredible Years curriculum and measuring social validity after the training. The objectives of this project were to examine the relation between the group-based parent training and contextualized coaching and positive parenting practices in parents of young children with disabilities. It was hypothesized that the home visiting component would decrease the likelihood of attrition and would increase the likelihood of success for parents with multiple risk factors. The target parenting practices were: responsive play, praise, appropriate limit setting, and handling misbehaviors. A multiple baseline design across behaviors across caregivers was used to

examine the effectiveness of contextualized coaching during home visits. The intervention focused on teaching parents to be their child's play and communicative partners and to prevent challenging behaviors.

Child challenging behaviors have been associated with negative interactions between children with disabilities and their parents (Erbas, 2010). Thus, the outcomes of this intervention were to increase positive parent-child interactions while decreasing children challenging behaviors. Parents were taught to implement the targeted skills (i.e., responsive play, the use of praise and rewards, limit setting, and positive strategies to handle misbehaviors) during structured group-based curriculum. Weekly home visits provided opportunities to discuss and practice the strategies in natural settings. Thus, the content of the home visits and performance-based feedback aligned with the group curriculum.

CHAPTER II

METHODS

Participants

Inclusion criteria for caregivers were: (1) having a young child (ages 36 months-60 months) with developmental delays and eligibility for special education services, (2) planned enrollment in the group parent training program offered by the local early intervention agency (i.e., based on the Incredible Years curriculum), (3) availability to attend all weekly group training sessions based on caregiver report, (4) parental concerns about the child's challenging behaviors at home, (5) consent to participate in the research, (6) no current weekly home visits through the local early intervention agency, (7) residence in the surrounding areas, and (8) English language proficiency. Two families volunteered to participate in the study and each met the inclusion criteria. Both were recruited through the local early intervention agency.

Adults. Both participating caregivers were mothers. Caregivers completed a demographic questionnaire at the start of the study. Both mothers were Caucasian and reported low-middle socioeconomic status. Caregiver demographic information is described in Table 1. Brenda directed a childcare center at her home during the day. Marcy was employed part time as home care provider for the elderly; she was a single caregiver.

Table 1. *Caregiver Demographic Information*

Primary Caregiver	Race	Age	Number of children	Income	Health Information	Parent Sense of Efficacy (PSOC)		Risk factors
						Pre	Post	
Brenda	Caucasian	30	4	Between 40,000 and 50,000	Experiencing depression for 4 years	3.88	5	Depression
Marcy	Caucasian	38	2	Less than 20,000		3.82	4.05	Single caregiver household, low-income

Children. Two children participated in this study. Both children received services from the local early intervention agency in community preschool classrooms. Child demographic information is described in Table 2. Child eligibility diagnosis and behavior concerns are described in Table.3.

Settings

Group caregiver training. A behavior specialist led the group from the local early intervention agency in a town in the Pacific Northwest. The group was held in a classroom at the local university one night per week for two hours, over 12 weeks. Childcare and a light snack or dinner were provided to parents who attended the program. The behavior specialist followed the Incredible Years parent curriculum (Webster-Stratton, 2008). He adapted the program from 22 weeks to 12 weeks.

Table 2. *Child Demographic Information*

	Race	Gender	Age	Age at entry into services	Challenging behaviors (based on caregiver concern)	Number of siblings
Tom (Brenda's son)	Caucasian	Male	48 months	42 months	Oppositional hyperactivity, non compliance and aggressive behaviors (i.e., screaming, kicking and hitting)	Three, ages: nine, six and one
Al (Marcy's daughter)	Caucasian	Female	53 months	14 months	Non compliance, screaming and aggressive behaviors (i.e. biting, hitting, spitting and scratching)	One, age six

Baseline and contextualized coaching. The researcher conducted baseline and contextualized coaching sessions at each family's home twice per week over 13 weeks. The primary measurement contexts were daily routines selected by the parent. Both parents selected daily routines that were most difficult for their family. Brenda chose morning routines (i.e., breakfast, getting dressed and morning play time). Marcy selected bedtime routines (i.e., brushing teeth, washing face, reading books, and transition to bed and afternoon free play). During weeks 13 and 17, the researcher faded contextualized coaching and home visits were reduced to once per week. Follow-up observations were conducted two weeks and six weeks after the end of the group training for Brenda and at two weeks and ten weeks after group training for Marcy.

Table 3. *Child Assessment Information*

	Battelle Developmental Inventory	Assessment Evaluation and Program System (AEPS)	Child Behavior Checklist	Conners Parent Rating Scale- Revised	Individual Family Service Family Plan (IFSP) Goals
Tom (Brenda's son)	Adaptive 1 st percentile, Personal social 1 st percentile	Adaptive 36%, social 22%	Externalizing behavior- 90 th percentile, overall behavior 87 th percentile	Hyperactivity 58 th percentile (supports eligibility for ADHD), Conners ADHD index 63 rd percentile (supports eligibility for ADHD)	Child will comply with teacher and parent direction. Child will cooperatively play with partners during child directed free play
Al (Marcy's daughter)	Adaptive 5 st percentile, personal social 1 st percentile communication 5 th percentile, cognitive 1 st percentile	cognitive 21%, communication 52%			Child will maintain appropriate physical orientation. Child will play appropriately with peers

Research Design

A single subject research design was used because it is ideal for examining the effects of a systematic intervention in natural environments on the behavior of individuals. In single subject design participants serve as their own control, allowing a comparison of the individual progress over time. This design allowed for replications of dependent variables (i.e., positive parenting practices) over the course of intervention (Lees & Ronan, 2008). A multiple baseline design was used to examine the relation

between the intervention (i.e., contextualized coaching) and parent behaviors. A multiple baseline design across caregiver behaviors was replicated across two caregiver child dyads. This approach is adequate because it allows for the systematic examination of the acquisition of caregiver behaviors (Kennedy, 2005), which would be difficult to detect with a group design. Further, a withdrawal design was not used because the target parenting behaviors were predicted to be irreversible. To establish experimental control, introduction of the intervention was staggered across behaviors and participants (Gast, 2010).

Dependent Measures

Prior to baseline, caregivers were asked to complete the Ages and Stages Questionnaire: Social Emotional (ASQ:SE; Squires et al., 2002); the Social Emotional Assessment/Evaluation Measure (SEAM; Squires and Bricker, 2007); and a caregiver self efficacy questionnaire adapted from the Parent Sense of Competence (PSOC; Gibaud-Wallston, 1977). The SEAM and ASQ:SE were used to provide information on the child and assess parental concerns about the child's social emotional repertoire. The PSOC was used to measure parental self-efficacy at the beginning and the end of this study. Research indicates a correlation between perceived child challenging behaviors and caregivers' sense of competence (Johnston and Mash, 1989).

The primary dependent variable was caregivers' use of responsive play, using reinforcement, effective limit setting, and handling misbehaviors. These were selected based on the content and focus of the Incredible Years curriculum. Operational definitions and examples of the dependent variables are provided in Table 4.

The secondary dependent variable was child's challenging behaviors. These were defined as maladaptive behaviors that impeded the child's ability to have positive interactions with others or engagement in the environment. These were defined by each caregiver for each child and are described in Table 2.

Table 4. *Operational Definitions of Parent Behaviors*

Behavior	Definition	Examples	Non-Examples
Promoting play interaction	The parent imitates the child's play behaviors with the same / similar toys or engages in a related play behavior	A child picks a puzzle piece shaped as a truck and "drives" it;	No, now we are playing with the puzzle, put the truck in its place. Here let me help you-- that is too hard for you.
Praise and reinforcement	Praise- positive verbal reinforcement immediately after a desired behavior. Praise should be specific to the child's action. Reinforcements- delivery of an incentive (e.g. sticker, candy, watching a movie etc.) after a desired behavior and follow through with reinforcement system if there is one in place.	I like it when you use your words. Thank you for sitting down quietly. Giving the child a sticker for following his picture schedule independently.	Good job. Handing a cookie to a child after he threw a toy
Effective limit setting.	Positive and clearly stated commands and follow through with commands.	We use spoon to eat our food. Use your soft voice please.	No, I said no cartoons before dinner. Ok, I will let watch cartoons but just this time.
Responding to challenging behaviors/handling misbehaviors	Ignoring child's attention maintained negative behaviors, using natural consequences and time out to calm down	Ignore a child's humming at the dinner table. I see you are very upset, I think you need some time to relax so you can use your instead of your legs.	If you keep screaming you will not have dessert again You are going to be in time out until I tell you to get up

Group caregiver training. The caregiver training followed the Incredible Years BASIC curriculum (Webster-Stratton, 2008) and included weekly two-hour sessions over 12 weeks. The first session included an introduction and overview of the program. Each session started with a review of the homework activity and a problem solving discussion. The group leader presented the targeted behaviors for the session, displayed the relevant vignettes, and distributed handouts related to the target behaviors. The group leader facilitated group discussions by asking caregivers to identify effective parental responses and reflect on how they might react in similar situations. Each session ended with a review of handouts and assigned home activities. The investigator completed a checklist with six planned activities for each session to measure fidelity of implementation of the Incredible Years curriculum (See Table 6).

The Incredible Years curriculum was separated into four sections. The first section in the curriculum focused on appropriate caregiver play skills. Thus, the first set of target behaviors was promoting play interactions. The second section focused on appropriate use of praise and rewards. The second set of target behaviors included the use of specific, contingent, and immediate praise for desirable behaviors. This section also targeted inappropriate use of reinforcements, including follow through with reinforcement systems and appropriate delivery (i.e., positive consequence for the child's inappropriate behavior). The third section focused on effective limit setting skills. This included a reduction of inappropriate commands (i.e., use positive stated commands and clearly stated commands). In addition, this section targeted follow through with commands. The final section of the curriculum focused on handling misbehaviors (i.e.,

ignoring inappropriate responses, use of logical consequences, and effective use of time out to calm down).

Baseline. Baseline home visits were conducted in the family home twice per week during the primary measurement context (i.e., daily play times) and commenced immediately after the first group training. After establishing stable patterns of responding in caregiver responsive play during baseline, the researcher introduced contextualized coaching focused on the first target behavior (i.e., responsive play with Brenda and praise with Marcy). Once patterns of responding stabilized with responsive play, the contextualized coaching was introduced with the second target behavior (i.e., praise with Brenda and setting appropriate limits with Marcy). This procedure was replicated with each target behavior across caregiver (i.e., limit setting and handling challenging behaviors).

Contextualized coaching. Home visits were conducted during the same routines as the baseline home visits, except the researcher provided performance-based feedback, modeling, discussion of needed supports and concerns, and a plan for follow-up focused on target behaviors. These sessions were between 45 minutes to an hour. During the 12 weeks of the group training, home visits were conducted twice per week excluding weeks that the family canceled due to illness. Contextualized coaching (i.e., performance-based feedback, modeling, and follow up discussions) on the four target behaviors were staggered across behaviors within each caregiver. The researcher provided performance-based verbal and written feedback and modeled use of target behaviors (i.e., play, praise, limit setting, or handling misbehaviors) during each home visit. Written feedback

included frequency count of the caregivers' use of target strategies, examples of their appropriate use of the strategies, a contextually relevant summary of the observation, and strategies for the caregiver to work on. The researcher provided specific examples and strategies relevant to each caregiver's daily routines, individual child needs, and interaction style. The researcher verbally reviewed the written feedback with the caregiver at the conclusion of each home visit. Figure 3 provides an example of the written feedback form.

Date _____	Time _____
Observer _____	
Family initials _____	
Condition (tier) _____	
<u>Home Observation</u>	
Data	
Things you are doing well	
Things to work on	
Next visit _____	parent signature _____

Figure 3. *Daily Feedback Form*

Data Collection

A partial interval observational recording system was used to collect data on all four caregiver behaviors during each session. A paper and pencil data recording form was designed for this study with each 15-minute observation divided into 20-s intervals (i.e., for total of 45 intervals per observation). The researcher recorded if any of the four caregiver behaviors were observed at any time within the interval. All scored intervals were divided by 45, which provided percentage of intervals that caregivers exhibited the target behaviors (i.e., a duration estimate; Kennedy, 2005).

Interobserver Agreement

A second, trained observer independently collected data during 25% of sessions across conditions, target behaviors, and participants. This observer was a doctoral student in special education. Interobserver agreement (IOA) was calculated using interval by interval agreement with percentage agreement. Overall IOA was 94% during baseline, 96% during intervention, and 94% at follow up across behaviors and participants (see Table 5).

Table 5. *Interobserver Agreement*

% Agreement	Baseline	Intervention	Follow up
Brenda	92	95	93
Marci	95	97	94

Treatment Integrity

Two types of treatment integrity were measured in the study. First, treatment integrity during the home visits was measured on the written feedback form (Figure 3) during the intervention conditions. At the end of each home observation the caregiver signed the feedback form indicating the research reviewed the form with her. Parents signed the form after each home visits during the coaching condition, indicating treatment integrity was 100% across participants. Second, treatment integrity also was measured during the group training sessions. The research completed used a checklist to assess implementation of six planned items during the Incredible Years group training. These items were based on the Incredible Years curriculum (see Table 6) Results from the checklists indicate the behavior specialist implemented all six components during each of the 12 planned group sessions.

Table 6. *Group Fidelity Checklist*

1. Group leader discussed home work assignment, reflecting and problem solving difficulties.	
2. Group leader presented target behavior for current session.	
3. Group leader displayed relevant vignettes.	
4. Group leader facilitated group discussion about vignettes.	
5. Group leader provided summary of the session	
6. Group leader provided parents with handouts and explained home work assignments.	

CHAPTER III

RESULTS

Target Behaviors

Visual analysis was used to examine changes in parental responding with the introduction of the contextualized coaching (Gast, 2010; Kennedy, 2005). The results suggested a functional relation between the contextualized coaching and parents' use of the positive parenting practices targeted. Target behaviors were low during baseline and increased immediately after the introduction of the intervention, although remaining at somewhat low levels throughout the study. This pattern was replicated across tiers and participants. Results are presented in Table 7. Visual presentations of the results are displayed in Figures 4 and 5.

Responsive play. During baseline, Brenda demonstrated moderate variability in responsive play with a mean of 38% (range 13% to 58%). Responsive play increased immediately after introducing the contextualized coaching. With the exclusion of one data point (i.e., a no school day with all 4 children and 2 day-care children were present) the percentage of intervals of responsive play increased significantly with a mean of 56% (range 42% to 91%). Responsive play results demonstrated a moderate increasing trend with some variability over the course of the study. Marcy's data demonstrated a stable, high level of responsive play, so the first target behavior for her was labeled praise.

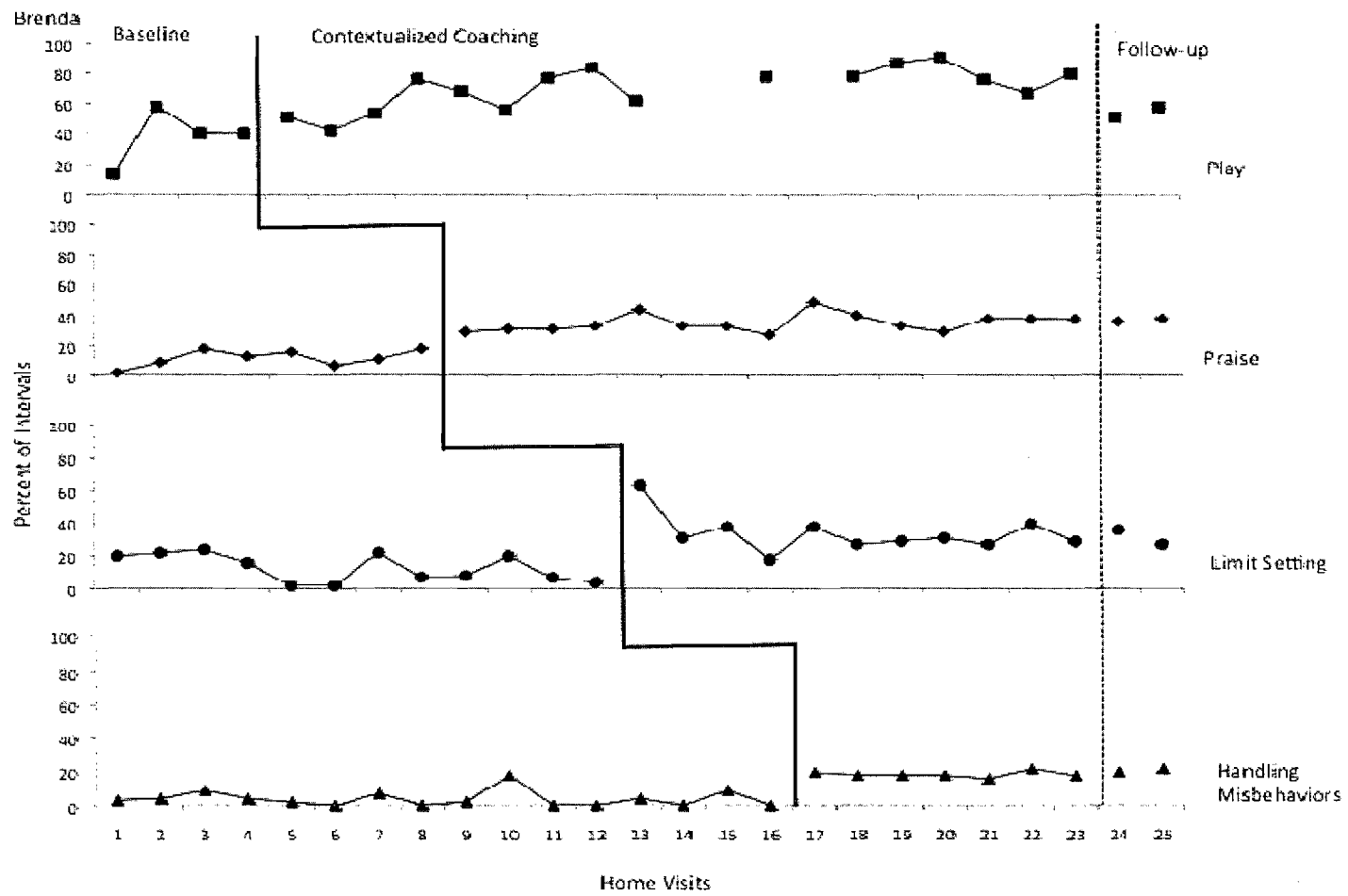


Figure 4. Brenda's Target Behaviors

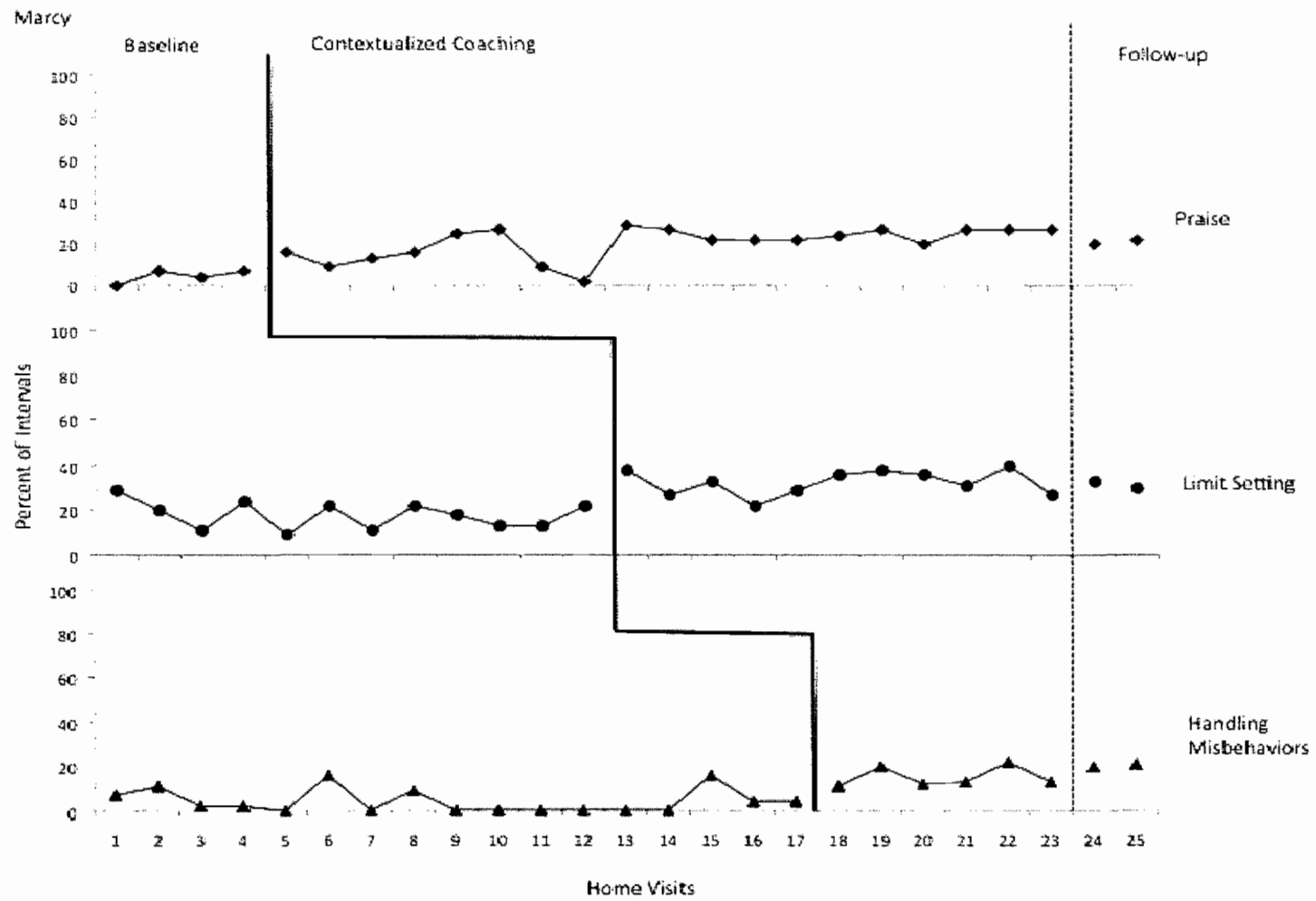


Figure 5. Marcy's Target Behaviors

Labeled praise. During baseline, both participants had low levels with a mean of 10% (range 2% to 18%) for Brenda and a mean of 5% (range 0% to 7%) for Marcy. Following the introduction of contextualized coaching on labeled praise, both participants showed a slight increase in levels of labeled praise. This increase maintained throughout the study for both participants with the exclusion of one data point for Marcy.

Limit setting. The trend for limit setting demonstrated a moderate degree of variability for both participants during baseline. Immediately following the introduction of contextualized feedback focused on limit setting, both participants demonstrated a slight increase in level. Brenda had an immediate increase in level, which maintained at a level slightly higher than baseline over the course of the study.

Handling challenging behaviors. During baseline, both participants demonstrated low levels of appropriate handling of challenging behaviors. Both participants demonstrated an immediate increase in level with the introduction of contextualized coaching that maintained over the course of the study.

Follow-up. Target behaviors were measured at two and six weeks after intervention for Brenda, and at two and ten weeks after intervention for Marcy during the primary context. Both caregivers demonstrated maintenance of target behaviors at follow-up (see Figures 4 & 5). Percentages of intervals are displayed in Table 8.

Table 7. Percentage of Intervals with Target Behaviors at Baseline and Intervention

	Baseline				Intervention			
	Play	Praise	Limit settings	Handling misbehavior	Play	Praise	Limit settings	Handling misbehaviors
Brenda								
Range	13%-58%	2%-18%	16%-20%	3%-9%	42%-91%	7%-49%	4%-63%	13%-29%
Mean	38%	10%	14%	4%	56%	35%	34%	19%
Marcy								
Range	53%-67%	0%-7%	9%-29%	2%-16%	49%-89%	2%-29%	9%-40%	11%-22%
Mean	49%	5%	18%	4%	73%	21%	32%	15%

Table 8. Percentage of Intervals with Target Behaviors at Follow-up

	Play	Praise	Effective limit setting	Handling misbehaviors
Brenda				
2 weeks	51%	36%	20%	20%
6 weeks	58%	38%	27%	22%
Marcy				
2 weeks	*	20%	33%	20%
10 weeks	55%	22%	30%	21%

*Mom requested observing during bedtime routine with no opportunities for responsive play.

PSOC. Both participants demonstrated an increase in parenting self-competence as measured by the PSOC. Brenda demonstrated a larger increase from baseline to post treatment (see Table 1).

ASQ:SE. Both children scored well above the cut-off during baseline on the ASQ:SE (see Table 9). These findings indicate the children should be referred for further testing in the social emotional domain. At post-treatment, the scores decreased for both children (in the positive direction). At baseline Brenda reported six items of concern (e.g., high activity level, hurting peers, and destroying things on purpose). At post-intervention Brenda reported only three items of concern including (i.e., destroying things, friendship skills, and toileting). At baseline Marcy reported five items of concern (i.e., safety with dangerous items and with strangers, long lasting tantrums, sleeping, and property destruction). At post-intervention Marcy reported concerns of only two items of concern (i.e., safety around dangerous items and strangers). However, their overall scores remained above the cut-off. These children were currently receiving services from the local early intervention agency, which included specialized instruction on social emotional goals.

SEAM. During baseline, both children scored relatively high on the SEAM, and caregivers had concerns about several items (see Table 9). At post-treatment the scores decreased (moving in a positive direction) and caregivers expressed concerns about fewer items (see Table 10).

Caregiver attendance. Brenda attended nine out of twelve sessions; Marcy attended eight out of twelve sessions. Both families missed sessions due to family illness.

Social validity. Social validity of the contextualized feedback and target behaviors was measured at the end of the study. Caregivers anonymously completed the social validity questionnaire (see Table 11) and returned via post to the researcher. Both

caregivers reported high satisfaction with the contextualized coaching. They reported the contextualized coaching was effective for helping to applying the strategies introduced in the group training into their daily routines. Both caregivers reported that they felt the coaching helped them appropriately respond to their child's challenging behaviors and found the strategies easy to implement across settings and over time. Also, both mothers reported that they would recommend this intervention to other caregivers with children with developmental disabilities attending the Incredible Years caregiver training offered at the local agency.

Table 9. *Assessment Information*

	Baseline		Post intervention	
	Age and Stages Questionnaire: Social Emotional (ASQ:SE)	Social Emotional Assessment/Evaluati on Measure (SEAM)	Age and Stages Questionnaire: Social Emotional (ASQ:SE)	Social Emotional Assessment/Evaluati on Measure (SEAM)
Tom	130 (cut off 59)	215	95(cutoff 70)	105
Al	150 (cutoff 70)	80	105 (cutoff 70)	70

Table 10. Caregiver Concerns on the SEAM

	Baseline	Post intervention
Brenda	<ul style="list-style-type: none"> • Child's responds to peers' and adults' soothing, • Child can calm down within 5 minutes, • Child's response to others' feelings, • Child shared attention. • Participation in group activities • Child displays positive self image, • Self-regulation skills. • Safety. 	<ul style="list-style-type: none"> • Social play skills, • Demonstration of affection toward adults and peers. • Safety.
Marcy	<ul style="list-style-type: none"> • Self regulation skills • Sleeping habits. • Safety. 	<ul style="list-style-type: none"> • Safety.

Table 11. Social Validity

Question	A	B
1. Coaching was effective for implementing strategies discussed during group.	5	6
2. Coaching was effective for improving parental practices for handling challenging behaviors.	5	6
3. Suggested strategies were easy to implement.	6	6
4. The duration of the home visits was appropriate.	6	6
5. I was able to generalize the use of the strategies to other settings.	6	6
6. My use of the strategies maintained over time.	5	6
7. I recommend the suggested intervention to other parents.	6	6

Note. 1 = strongly disagree, 2=disagree, 3=somewhat disagree, 4=somewhat agree, 5=agree, 6= strongly agree

CHAPTER IV

DISCUSSION

The purpose of this study was to examine the relation between contextualized coaching and increases in positive parenting practices for caregivers participating in group training. The results of this study suggest a functional relation between contextualized coaching and increase in positive parental behaviors. The target behaviors remained low prior to introducing the contextualized coaching and slightly increased with the contextualized coaching. Furthermore, the parents reported high satisfaction with the contextualized coaching and child outcomes and less concerns about child challenging behaviors after intervention. These findings suggest that contextualized coaching may supplement community provided group-based parent training for parents of children with special needs. Adding an individualized component to an evidence-based parent training curriculum may increase positive interactions between caregivers and their children with developmental delays. The results of this study suggest contextualized feedback based on group training may be effective in supporting positive parenting practices in caregivers of children with disabilities.

This study adds to the growing literature on the implementation of the Incredible Years curriculum with caregivers of young children with developmental delays. The current study used an evidence-based curriculum for families with children with typical development and numerous risk factors. Results from this study support previous findings on the use of the Incredible Years curriculum with parents of children with special needs

(McIntyre, 2008; Jones et al., 2007; Lees and Ronan, 2008). This study expands the literature by examining the use of an individualized intervention (i.e., contextualized coaching) focusing on positive parents practices with families with children with developmental delays. Research indicates that children with developmental disabilities are more likely to develop severe behavior disorders than their typical peers (Baker et al. 2002; Emerson, 2003; Roberts, Mazzucchelli, Taylor, & Reid, 2003). This study provides support for the use of individualized, contextually relevant early intervention for families of children with disabilities exhibiting challenging behaviors.

This study extends the parent training literature in three ways. First, this study provides preliminary evidence of the effects of the Incredible Years curriculum and positive parenting practices of caregivers with children with special needs. Most of the research on the Incredible Years has focused on decreasing parental negative behaviors such as: criticism, inappropriate play behavior and inappropriate use of consequences. (Gross et al., 2003; McIntyre 2008; Phaneuf & McIntyre, 2007; Reid et al., 2004). This study focused on increasing of positive parental behaviors including, responsive and appropriate play behaviors, using labeled praise appropriately (i.e., delivery of tangible reward or verbal praise in when the child engages in expected behavior), effective limit setting (i.e., clearly, positively and short stated commands) and handling misbehaviors appropriately (i.e., ignore misbehaviors, follow through with commands, use of time out to calm down, use of natural consequences and reinforce compliance). This study supports past research demonstrating that teaching replacement skills is related to better short and long term outcomes for parents and children (Erbas, 2010; Harvey et al., 2009).

Second, this study suggests that individual contextualized coaching is functionally related to increases in positive parenting practices in caregivers of children with special needs, and a reduction in concerns about child behaviors. Coaching strategies included observations, reflection with parents, modeling, active listening, problem solving with parents, and material support related to the group training. Practitioners can implement these strategies with little training, resources, or technical assistance. This might be a cost effective means of service delivery for early intervention and special education agencies. Furthermore, this component might be a necessary adjunct for caregivers with low attendance rates at group training sessions. Both caregivers in this study missed several group training sessions.

Third, pre and post measurement of parents' sense of efficacy using the PSOC showed increases after intervention. These results support and extend the current literature connecting the increase in parental self-efficacy with an increase in parental positive behavior. An important focus of early intervention includes helping caregivers increase their confidence in their ability to care for their children (Bruder, 2000; Gallagher et al., 2004; Gross et al., 2003). Research has established that caregivers with low sense of efficacy are more likely to use ineffective strategies in response to child challenging behaviors (Kazdin, 1997). Results from this study support the use of individualized, contextually relevant coaching with caregivers of children with special needs displaying challenging behaviors (Johnston & Mash, 1989).

Finally, parents were highly satisfied with the intervention and the outcomes. Parent involvement and satisfaction are essential for any effective intervention and

particularly for reducing challenging behaviors at home (DEC, 2007). Despite widespread evidence for practice, one major limitation of parent training groups is attrition. Social validity measures provide important information about the feasibility and acceptability of interventions and outcomes. Applying this information to future group trainings might prevent or preclude attrition.

Limitations

There are several limitations in this study worth noting. First, most of the target parenting practices never reached high levels for either parent. There are several possible explanations for this including: (a) the duration of the coaching, (b) the nature of the behaviors, (c) the measurement system, or (d) the measurement context.

The parent training group and coaching occurred over the course of 12 weeks. For both parents, the strategies were novel and constituted replacement behaviors for other ineffective behaviors. Hence, it may take more time to unlearn old strategies and acquire new parenting practices. The nature of the behaviors also may have contributed to the low levels over the course of the study. For example, limit setting and handling misbehaviors were contingent on child behaviors. Thus, as child challenging behaviors decreased over the course of the study, parents might have fewer opportunities to use the target behaviors.

A partial interval measurement system was used in this study. This measurement system was selected because it provides an estimate of target behaviors that might be occurring at a high rate and simultaneously. This may have underestimated the actual frequency of target behaviors. Furthermore, the measurement contexts were selected by

parents. Although this ensures the contexts were important for the parents, they may not have been ideal opportunities for observing changes in target behaviors.

Second, results from the child behavior measurements, the ASQ:SE and SEAM, indicated both children had fewer problem behaviors at the end of the study, but remained in the referral range. There are several possible reasons for this result. As shown in previous studies (Gross et al., 2003; Webster-Stratton, 1998), parental behaviors show significant changes within the initial phase of intervention, with a small decrease in child negative behaviors. These data suggest that children's negative behaviors are more resistance to change and may require more than 12 weeks to observe notable changes.

Third, these tools were designed to screen and identify children who need further assessment and develop goals for addressing social emotional development. These measures might not be sensitive enough to detect change in children's behaviors over time.

Fourth, most observations were conducted during the same routine. This may limit the generality of the results. Even though each caregiver chose the daily routine, ensuring ecological validity, observations during different times might provide information related to generalization of strategies across routines and time of day.

Fifth, although the research design used for this study establishes experimental control by staggering intervention across behaviors, the sample used in this study consists of only two families participating in community-based group training. This reduces the external validity of the study. An analysis of the individual contribution of the

contextualized coaching without the group parent training was outside the scope of this study. Future research might examine the use of contextualized coaching with or without the group training component.

Finally, due to the nature and the context of this training, parents chose to participate in this training out of their own volition. Also, they volunteered to participate in home visits in addition to the group training. This may have inflated the results somewhat, since the caregivers chose to receive home visits. Future research might examine the addition of contextualized coaching to group parent training using a tiered or response to intervention approach (McIntyre & Phaneuf, 2008). In this manner, caregivers would receive contextualized coaching based on their performance during baseline.

Applications for Practice

The results from this study have several applications for practice. For example, local agencies that utilize the Incredible Years curriculum group training might train all service providers to be familiar with the content of the group training. Service providers will then be able to use contextualized coaching during home visits and provide parents with the support to implement evidence-based strategies discussed in the group training. This approach might be cost effective and efficient. Practitioners will be able to use contextualized coaching based on the content of the Incredible Years training during standard, regular home visits.

This approach also might address issues of attrition with the group training. The combination of individualized, contextual feedback with group training can be used with

families with a high risk of attrition from group trainings (Lees & Ronan, 2008). This also applies to families with multiple risk factors who may need more intense intervention. Further, this intervention may be appropriate for families who need also individualized support (Powell et al., 2006). The individualized component may motivate parents to complete the program and offer opportunities for families to problem solve with the coach and practice positive practices.

Future Research

Future research might evaluate the individual contributions of each component of the intervention (i.e., group training, home visits, and contextualized coaching) to the elements related to parental competency. For example, future study might examine child behavior pre and post intervention using different measures such as the Eyberg Child Behavior Inventory and the Child Behavior Checklist (Achenbach, 1991a. & Eyberg, & Pincus, 1999). Follow-up at six months may validate the observed change in parental behavior and the caregiver's report of child behavior. Future studies might also focus on child outcomes. Possible research questions might examine whether child outcomes are better when parents receive additional individual coaching. Also, more research is needed to differentiate which parent strategies are associated with decreases in child maladaptive behaviors.

Families caring for children with disabilities often experience higher levels of stress (Roberts et al., 2003). Future investigation may examine the effectiveness of the presented intervention on decreasing parental stress. For example, does contextualized feedback help reduce parental anxiety and stress? Is there a difference between parental

level of stress and family outcomes among parents who participate in the Incredible Years training alone and parents who receive additional home visits implementing contextual feedback?

In conclusion, families with young children with disabilities often experience higher than average levels of stress. Higher stress levels are related to less frequent positive parent child interactions and increased negativity (Baker et al., 2002). Group parent with training with individualized, contextually relevant coaching might be a cost effective-evidence based option for supporting parents and children with special needs. Our education and social services agencies are experiencing dramatic cuts in funding and resources. It is time for agencies to work together to examine evidence-based practices that are cost effective and feasible in community settings. This study provides preliminary evidence of a cost effective, evidence-based model of parent training, implemented in a real life, community-based setting.

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