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Child Parent Relationship Therapy for Parents of Children with Disruptive Behavior

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CHILD PARENT RELATIONSHIP THERAPY FOR PARENTS OF CHILDREN WITH DISRUPTIVE BEHAVIOR

by

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Young children who display extreme levels of disruptive behaviors are at increased risk for later academic difficulties, poor social relationships and adolescent delinquency, making early intervention efforts a priority. Studies evaluating Child-Parent Relationship Therapy (CPRT) have demonstrated its effectiveness in improving parental empathy, improving parental acceptance, decreasing parenting stress, and decreasing perceived child problem behavior. These outcomes, however, must be evaluated in light of several research limitations (e.g., lack of randomization, use of non-standardized measures, lack of treatment integrity data). Well conducted studies that assess the effectiveness of CPRT on specific presenting problems are needed to evaluate better the impact, versatility, and long-term effect of this treatment. The purpose of the current study was to determine, in the context of a natural multiple baseline across participants design, the impact of the CPRT protocol on parent report of (a) child disruptive behavior, (b) parenting relationship, (c) acceptance of the child, (d) parenting stress, and direct observation of (e) parental displays of empathy, (f) positive parent behaviors and (g) child disruptive behavior when used for parents with children displaying disruptive behavior. Results suggest that CPRT was effective in reducing parent report of child disruptive behavior, improving parent ratings of their relationship with their child relative

to attachment, communication, involvement, parenting confidence and relational frustration, decreasing parenting stress, improving parent report of acceptance of their child, increasing observations of empathy, and positive parent behavior for parents of children with disruptive behavior.

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INTRODUCTION

Disruptive behavior is the most common reason young children are referred for treatment to mental health providers, accounting for one third to one half of referrals (Kazdin, 1995; Schuhmann, Durning, Eyberg, & Boggs, 1996). As part of normal development, many children engage in disruptive behaviors such as oppositionality, noncompliance, verbal protest, whining, tantrums and aggression. These behaviors are typically observed to be highest during toddlerhood (Forehand & Wierson, 1993) though it has been estimated that preschool aged children comply with parent demands in only 50 to 75% of opportunities (Schroeder & Gordon,1991) and approximately 50% of parents report disruptive behaviors in their preschool aged children such as lying, stealing, or destruction of property (Achenbach, 1991). Under most circumstances, rates of disruptive behavior decrease as a part of normal development; the majority of children learn to control these behaviors by school-age (Hembree-Kigin & McNeil, 1995). Young children who display extreme levels of disruptive behaviors, however, are at increased risk for ongoing behavior problems (Campbell, Shaw, & Gilliom, 2000; Gilliom & Shaw, 2004; Patterson, Reid, & Dishion, 1992). Severe externalizing behavior in childhood is predictive of later academic difficulties, poor social relationships and adolescent delinquency (Coie, Belding, & Underwood, 1988; Loeber, 1990; Patterson, et al., 1992), making early intervention efforts a priority.

Treatments for children with extremely disruptive behavior often address improving the parent-child relationship by focusing on parental responsiveness and

sensitivity to the child's emotional needs to promote self-control, emotional and behavioral regulation by the child (Bowlby, 1969) as well as to disrupt coercive interaction styles that contribute to the acquisition and maintenance of conduct disordered behavior (Patterson, 1982). Several empirically supported psychosocial interventions have been identified for the treatment of young children with severely disruptive behavior (Eyberg, Nelson, & Boggs, 2008). These interventions (e.g., Parent-Child Interaction Therapy; Hembree-Kigin & McNeil, 1995, Defiant Children; Barkley, 1997) are based on a two-stage model which focuses on improving the parent-child relationship through child-centered play therapy techniques such as reflective responding and tracking, as well as improved parental discipline strategies such as clear instruction giving and time out. While each treatment is unique in its presentation (e.g., group, video-based) and content variations exist, the foundation of these "probably efficacious" treatments lies in parent-child relationship enhancement acquired through child-centered play therapy techniques.

When evaluating the effect of play therapy alone, a meta-analysis conducted on 93 play therapy studies reported a large effect size (.80) for play therapy interventions (Bratton, Ray, Rhine, & Jones, 2005). Parent reports on target problem behaviors were evaluated as well; effect sizes were nearly equivalent across all target problem behaviors: .81, .78, .93 for internalizing, externalizing and combination internalizing/externalizing behaviors, respectively, suggesting that play therapy interventions are effective in reducing parent reports of internalizing and externalizing behaviors in children. Finally, filial therapy studies, in which parents implemented treatment with their children rather than a therapist, derived an effect size of 1.15, suggesting the efficacy of filial therapy treatments.

Filial Therapy

Rooted in the principles of child-centered play therapy, filial therapy was conceptualized by Bernard Guerney (1964) and defined by Louise Guerney (1980) as:

> a behavioral method of intervening in the psycho-social development of children under 11 years of age, using the parents as the agents of change. Individually, or in groups of six to eight, parents are taught to conduct nondirective play therapy sessions with the instruction and supervision of professionals.

Based on the premise that a child's behavior is related to the interactions that have occurred in his/her interpersonal relationships, filial therapy uses the parent-child relationship to teach parents, rather than professionals, to become therapeutic agents in the child's life. In filial therapy, the focus of treatment is improving the parent-child relationship. Targeting this relationship aims at weakening negative parent-child interactions while improving the parent's ability to understand the child. The impact of the strengthened parent-child relationship is perceived as more beneficial than a therapist-child relationship and as promoting maintenance and generalization of behavior change in the natural setting (Guerney, 1964).

The objectives of filial therapy are to enhance the parent-child relationship, assist parents in acquiring play therapy skills, and to decrease child problem behaviors and emotional distress (Guerney, 1964). Across the course of treatment, parents learn to understand and accept their child, develop sensitivity to their child's feelings, learn how to encourage their child's self-direction and self-reliance, gain insight into themselves in relation to their child, and change their perceptions of their child (Guerney, 1964). These objectives are achieved through parents' implementation of weekly play therapy sessions

with their child. Basic child-centered play therapy skills (i.e., reflective listening, recognizing and responding to the child's feelings, therapeutic limit setting, and building the child's self-esteem) are acquired in filial therapy through didactic instruction, role-play, and observation/supervision of parents' skills in the context of a supportive parent-therapist relationship.

Child Parent Relationship Therapy (CPRT; Landreth & Bratton, 2006) is a manualized filial therapy treatment. As in Guerney's filial therapy model, CPRT parents are taught child-centered play therapy skills which focus on enhancing the parent-child relationship. Landreth (2002) defines filial therapy as a strategy implemented by trained play therapists "to train parents to be therapeutic agents with their own children through a format of didactic instruction, demonstration play sessions, required at-home laboratory play sessions, and supervision in a supportive atmosphere."

Landreth and Bratton (2006) reported an analysis of the Bratton et al. (2005) meta analysis data for studies in which CPRT was implemented and omitted any studies conducted by individuals not trained by the Landreth team. The effect size was calculated as 1.25 for the Landreth CPRT model, suggesting the efficacy of this treatment. These data, however, were derived primarily from studies which evaluated CPRT as compared to a no-treatment control groups. These data, then, suggest that CPRT is more effective than no treatment, but does not indicate that CPRT has outperformed other treatments.

The aim of CPRT is to improve the parent-child relationship rather than to address a specific behavior of the child. As such, CPRT studies have focused on evaluating the treatment for various populations of parents (i.e., recruitment has been

based on general characteristics of the parent population). For example, CPRT has been studied with a variety of cultural groups, for parents of children with differing presenting concerns (e.g., hearing impaired, chronic illness, sexual abuse history), and in the context of different settings (e.g., incarcerated parents).

The impact of CPRT is commonly evaluated through rating measures of parental empathy, parental acceptance of the child, and parenting stress. Chau and Landreth (1997) modified CPRT treatment to be used with Chinese parents living in the United States. Parental empathy, parental acceptance of the child, and parenting stress were evaluated for 34 parent-child pairs. Posttests indicated significant differences for the experimental group on parental empathic behavior, acceptance of the child, and parenting stress compared to controls. Parenting stress in the experimental group shifted from the clinically elevated to normal range.

Lee and Landreth (2003) studied modified CPRT treatment with immigrant Korean parents living in the United States. Treatment was presented in Korean to 32 participants. Results indicated significant improvements in parental displays of empathy and parental acceptance for the experimental group compared to control. A significant reduction in parenting stress was reported per the Parenting Stress Index (PSI) Total Stress score and Parent Domain score, though a change was not observed between groups on the PSI Child Domain.

Glover and Landreth (2000) evaluated the effectiveness of CPRT on observations of parental empathic behavior, and parent ratings of acceptance, parenting stress, child self-concept and desirable play behaviors (i.e., sustained play, self-directiveness, parent-child connectedness) for 21 Native American parents. Results indicated significant

differences for the experimental group relative to demonstrations of parental empathy. Significant differences were not obtained between groups on parental acceptance or parenting stress. Despite a lack of significant change, there were consistent reductions in reported parenting stress for the experimental group (i.e., scores were in the normal range). Changes in ratings of self-concept were not observed for the experimental group. Significant changes were noted for direct observations of desirable play behavior, self-directiveness and connectedness, but not for sustained play or overall mood.

In the context of a one group pretest-posttest design, Glazer-Waldman, Zimmerman, Landreth and Norton (1992) implemented CPRT for 5 families with children with chronic illnesses (e.g., muscular dystrophy, cerebral palsy, asthma, allergies, and feeding disorder). Parent and child report of anxiety and parental acceptance of the child were evaluated. There were no significant differences between pretest and posttest parent reports on any measure, though the authors noted qualitative changes in parent description of their children, descriptions of themselves and positive trends in the data relative to parental acceptance.

While CPRT is not typically used to address a specific problem behavior and often evaluates the parent-child relationship through rating measures of parental empathy and acceptance of the child, researchers have also evaluated parent report of child problem behavior. The Filial Problem Checklist (FPC) is a tool that has frequently been used to measure parent perception of problem behavior. The FPC is a questionnaire that measures parent report of the occurrence and severity of various problem behaviors for their children. Many studies that have used the FPC have demonstrated significant reductions in parent report of problem behavior.

Landreth and Lobaugh (1998) studied the impact of CPRT on ratings of parental acceptance of their child, parenting stress, perceived problem behaviors of the child, and child self-concept for incarcerated fathers. Thirty-two incarcerated fathers were assigned to an experimental or control group and matched on education level, ethnic origin, and age of child. Significant differences were noted for the experimental group regarding parental acceptance of the child. Measures of parenting stress indicate that the experimental group reported significantly lower scores on the PSI Total Stress and Parent Domain scales. A significant difference was not found on the Child Domain scale. Across PSI scales, pretest and posttest scores were in the normal range. Significant reductions in reported child problem behavior (per the FPC) were noted for the experimental group. Measures of self-concept were also significant for the experimental group but were not compared to a control group due to attrition rates in this group.

Harris and Landreth (1997) modified CPRT treatment for use with incarcerated mothers. Twelve participants attended 2-hour sessions, twice weekly, for 5 weeks and completed two weekly play sessions in jail with their children. Measures of parental displays of empathy and parental acceptance were significantly improved for parents who participated in the experimental group. Reported parenting stress (per PSI) shifted from the clinically elevated range to the normal range for the experimental group. This difference, however, was not statistically significant. The authors speculate that the condensed five-week CPRT model may not have provided enough time to have an impact on parenting stress. They also suggest that the PSI may not have been an appropriate instrument to measure the stress of incarcerated mothers. Review of the mean differences at posttest indicate a positive trend for both experimental and control groups.

The authors comment that the reasons for the positive trend observed in the control group are "not clear."

Harris and Landreth (1997) also reported a significant reduction in parent perception of child problem behavior per the FPC for parents in the experimental group. It is notable that aside from two 30-minute play sessions per week, the amount of contact mothers in the experimental group had with their children was not specified. Control group participants did not have contact or play sessions with their children "other than the pretraining and posttraining videotaped play sessions" (Harris & Landreth, 1997). The authors do not specify whether visitation (i.e., telephone contact separated by a glass window) was monitored or controlled for across groups. This suggests that the experimental group had more contact with their children and more opportunities to observe possible changes in problem behavior. Given this, it is not possible to conclude that CPRT was the variable responsible for reported reductions in problem behavior.

Bratton and Landreth (1995) evaluated the impact of CPRT on parental empathy, parental acceptance, and parenting stress of 43 single parents. The researchers noted significant increases in displays of parental empathic behavior and parental acceptance of the child for the experimental group. Reported parenting stress was also significantly reduced for the experimental group and moved from the clinically elevated to the normal range. The authors also reported a significant reduction in parent perception of child problem behavior per the FPC for the experimental group.

Yuen, Landreth, and Baggerly (2002) evaluated the effectiveness of CPRT with 35 immigrant Chinese families. All training materials were presented in Cantonese. Improvement in parental displays of empathy, parental acceptance of the child, parenting

stress (scores moved from the clinical to the normal range), and parent perception of problem behaviors (per FPC) were observed. Child ratings of self-concept indicated a significant improvement for children ages 3 through 7 but not for children ages 8 through 10. The measures used to evaluate self-concept differed for these two age groups, thus it is possible that the lack of change for the older group may have been a function of the assessment measure used.

Jang (2000) implemented a modified version of CPRT to study its impact on parental empathy, parental acceptance, and parenting stress for 32 Korean families. The experimental group received modified CPRT training which was presented for 2 hour sessions, two times per week, for 4 weeks. There were no significant differences between experimental and control groups regarding parental acceptance and parenting stress. Reports of parenting stress levels remained within normal limits for both groups. The authors speculated that the "mothers may have wanted to appear under less stress than they actually were under in order to impress teachers and the investigator" (Jang 2000) and that the abbreviated treatment duration may not have been sufficient to impact parenting stress. Significant differences were identified for parental displays of empathic behavior and parent report of problem behavior per the FPC compared to control.

Parent report of child behavior problems, as measured by the FPC, has been significantly reduced in many CPRT studies. The FPC, however, is not a standardized assessment. Several researchers have evaluated the impact of CPRT on parent report of child behavior problems using the Child Behavior Checklist (CBCL; Achenbach, 1991), a standardized measure of problem behavior, with varying results, as discussed next.

Kidron and Landreth (2010) implemented an intensive version of CPRT for 27 Israeli parents living in Israel. CPRT sessions were conducted twice weekly over a 5 week period. Results indicated a statistically significant improvement in ratings of parental empathy and parenting stress. Parent report of child problem behavior was evaluated with the CBCL. At posttest, parents reported significant reductions on the Externalizing Behavior Problems scale compared to control; differences were not noted on the Total Problems or Internalizing Behavior Problems scales.

Smith and Landreth (2003) evaluated the effectiveness of intensive CPRT with child witnesses of domestic violence in reducing reported child behavior problems, improving child self-concept, and increasing mothers' empathic behaviors. Eleven mothers completed a modified version of CPRT in which all sessions were administered over a 2 or 3 week period. The results were compared to similar outcome measures for children participating in intensive individual child-centered play therapy and intensive sibling-group play therapy as studied by Kot, Landreth, and Giordano (1998) and Tyndall-Lind, Landreth, and Giordano (2001). Following treatment, mothers who had participated in the intensive CPRT training reported significant reductions in child problem behavior per the CBCL Total Behavior, Internalizing, Externalizing, Anxious/Depressed, and Aggressive scales, compared to a no-treatment control. However, there were no significant differences on posttest CBCL scores between the intensive CPRT group, individual play therapy group, or intensive sibling-group play therapy group. The results suggest that intensive CPRT was effective in reducing parent report of child problem behavior but that CPRT did not out-perform individual or group

play therapy. Additionally, reductions in ratings of self concept and parent empathy were noted at posttest compared to control.

Kale and Landreth (1999) found no impact on parent or teacher report of child behavior problems, parental acceptance, and parenting stress for children with learning difficulties following participation in CPRT. Twenty-two primary caregivers of children with learning difficulties participated in CPRT across 10-weeks. Learning difficulties included anxiety disorders, Attention-Deficit/Hyperactivity Disorder, and learning disability. No significant differences between groups were noted for parent or teacher report per CBCL Total Problems, Internalizing, or Externalizing scales. The authors did not provide mean pretest or posttest scores for the CBCL to indicate the severity of the behavior. The authors noted that the lack of change on the CBCL may have been a function of the assessment tool itself, as it assesses behavior over a six month period and thus may not have been sensitive enough to capture any changes that had occurred in the previous seven weeks. Parental acceptance was significantly improved for the experimental group compared to control. The researchers noted a statistically significant reduction in reported parenting stress per the PSI Total Stress score and Parent Domain compared to the no-treatment control group. However, there were no significant differences on the Child Domain scale. Mean posttest PSI scores were in the normal range but pretest means were not reported; it is not indicated if the scores moved from clinically elevated to within normal limits.

Costas and Landreth (1999) studied the effectiveness of CPRT in enhancing the parent-child relationship and reducing behavior problems of 26 sexually abused children. Non-offending caregivers of children who had been a victim of sexual abuse participated

in CPRT over the course of 10 weeks. Rating measures of parental acceptance, parental empathy, parenting stress, child behavior problems, and child self-concept and emotional problems were collected. Results indicate significant differences on four scales measuring parental empathy, and two of four scales measuring parental acceptance of the child as compared to controls. Measures of reported parenting stress indicated significant differences on the Total Stress and Child Domain scales of the PSI but not on the Parent Domain scale, as compared to the control group; mean scores fell within the normal range for both groups during pretest and posttest, with the exception of the mean posttest Child Domain score for the control group. The CBCL was used to assess parent perception of child behavior problems. At posttest, positive trends, but no statistically significant changes, were observed on CBCL Total Problems, Externalizing, or Internalizing scales. At pretest, the mean CBCL Total Problems scores were in the clinical range for both groups. Costas and Landreth state that the lack of significant difference at posttest may be because the children had only received 7 weeks of intervention (i.e., 7 play sessions) and thus more time may be needed for the change to become statistically significant. At posttest, CBCL scores for the experimental group were in the normal range while posttest scores for the control group remained in the clinical range. It is notable that many study children were receiving unspecified concurrent therapy.

Taylor, Purswell, Lindo, Jayne, and Fernando (2011) conducted a small-scale study (n=3) which evaluated the impact of CPRT on child behavior and parent-child relationships for divorced parents. Parents participated in the 10-week manualized CPRT protocol. Ratings of parenting stress (per the PSI) indicated an improvement from

clinically significant to the normative range on the Child Domain scale for one parent. Regarding child behavior, ratings of externalizing behavior (per the CBCL) decreased from the clinically significant to borderline range. In addition, improvement from the borderline to normative range was noted on the following scales: affective problems, oppositional defiant problems, anxious/depressed, aggressive behavior, and total problems. The authors do not indicate the number of parents that reported these improvements, nor the individual scores for the CBCL.

Tew, Landreth, Joiner, and Solt (2002) evaluated the impact of CPRT on parental acceptance, parenting stress, and problem behaviors of children with chronic illnesses. Twenty-three parent-child pairs (12 experimental) completed the study. Measures of parental acceptance of the child indicated significant improvements for the experimental group compared to control. Significant reductions on the PSI Total Stress and Child Domain scales, but not on the Parent Domain scale, were noted. Relative to child problem behavior, at posttest, CBCL Total Problem Behavior and Anxiety/Depression scales were significantly lower for the experimental group. The authors do not specify, however, whether additional scales of the CBCL were evaluated (e.g., Internalizing, Externalizing). They also did not specify if the CBCL scores are clinically elevated at pretest or posttest.

Teacher Interventions

Morrison and Bratton (2010) evaluated the impact of a classroom-based version of CPRT for children with behavior problems in Head Start programs. Twenty-four teachers and aides (12 experimental, 12 active control) and 52 children participated.

Teachers participated in a modified version of the 10-week CPRT protocol (i.e., Child Teacher Relationship Therapy; CTRT) which focused on the teacher-child relationship, followed by 10 weeks of in-class coaching of the skills acquired. Teachers in the active control group were trained to implement Conscious Discipline Training. Child participants initially demonstrated elevated scores (i.e., borderline range or clinically significant) on the Caregiver-Teacher Rating Form (C-TRF) Externalizing or Internalizing scales (Achenbach & Rescorla, 2001). Ratings of externalizing behaviors indicated statistically significant reductions for students participating in CTRT compared to active control, while significant changes in internalizing behaviors were not observed. Relative to clinically significant change, of 15 students who initially demonstrated clinically significant externalizing behavior per the C-TRF, 9 demonstrated normative range scores at posttreatment. In addition, of 12 students who initially demonstrated clinically significant internalizing behavior, 8 were within normal limits at posttreatment.

Post, McAllister, Sheely, Hess, and Flowers (2004) implemented a10-week training for teachers based on CPRT. Nine preschool teachers and 18 children (9 experimental, 9 control) completed 10 weeks of training which included weekly group meetings and individualized supervision, followed by 13 weeks of group meetings which focused on generalizing skills to the classroom. Demonstration of play therapy skills and empathy were noted to improve for teachers in the experimental group. Ratings of child behavior using the Behavior Assessment Scale for Children (BASC), per teacher report, indicated significant positive changes relative to Internalizing Problems, Behavioral Symptoms Index, and Adaptive Skills. Per parent report, there were no significant changes in child behavior.

Smith and Landreth (2004) evaluated the effectiveness of CPRT on increasing the empathic behaviors of teachers of hearing impaired students and reducing teacher report of child behavior problems. Twenty-four children (12 experimental) participated. Teachers completed a modified CPRT which consisted of five 3-hour trainings and five 2-hour trainings over 10 weeks. CPRT was also modified to be consistent with American Sign Language. Student problem behaviors were evaluated with the CBCL-Teacher. The experimental group scored significantly lower on the Total Problems, Internalizing, and Withdrawn scales compared to the no-treatment control group. There were no significant reported differences between groups on the Externalizing, Anxious/Depressed, or Aggressive scales. The authors noted that the Anxious/Depressed scores were not at clinical levels of significance at pre-test, however, no analysis of the Externalizing or Aggressive scales was provided.

In general, CPRT studies indicate improved parental displays of empathy (e.g., Bratton & Landreth, 1995; Chau & Landreth, 1997; Harris & Landreth, 1997; Jang, 2000; Lee & Landreth, 2003; Yuen, Landreth, & Baggerly, 2002), improved parental acceptance of the child (e.g., Bratton & Landreth, 1995; Harris & Landreth, 1997; Kale & Landreth, 1999; Landreth & Lobaugh, 1998; Tew et al., 2002; Yuen, Landreth, & Baggerly, 2002) and reduced parenting stress (Bratton & Landreth, 1995; Chau & Landreth, 1997; Costas & Landreth, 1999; Kale & Landreth, 1999; Landreth & Lobaugh, 1998; Lee & Landreth, 2003; Tew et al., 2002; Yuen, Lanreth & Baggerly, 2002). Relative to disruptive behavior, CPRT studies indicate reductions in parent report of disruptive behavior per the Filial Problem Checklist (Bratton & Landreth,1995; Harris & Landreth,1997; Jang, 2000; Landreth & Lobaugh,1998; Yuen, Landreth, & Baggerly,

2002). Parent report of disruptive behavior per the Child Behavior Checklist (CBCL) yielded some variability across studies. CBCL Total Score reductions are noted (Smith & Landreth, 2003; Tew, Landreth, Joiner, & Solt, 2002). Several studies, however, indicate no change on this measure (Costas & Landreth, 1999; Kale & Landreth,1999; Kidron & Landreth, 2010). Similarly, several studies report reductions on the CBCL Externalizing Scale (Kidron & Landreth, 2010; Smith & Landreth, 2003) and Internalizing Scale (Smith & Landreth, 2003) while others indicate no change on these scales (Externalizing: Costas & Landreth,1999; Kale & Landreth, 199; Internalizing: Costas & Landreth,1999; Kale & Landreth,1999; Kidron & Landreth, 2010).

CPRT Research Limitations

Chambless et al. (1998) identified criteria to determine the efficacy of mental health treatments (e.g., well established). The basis for evaluating individual studies per these criteria is a "good" design. A "good" or "well conducted" study has been described as including the design, inclusion/exclusion criteria, control or comparison conditions, random assignment, reliable measures of behavior, specified sample characteristics (e.g., child sex, age, race/ethnicity, behavior problem), defined statistical procedures, use of a treatment protocol/manual, and treatment integrity data (Eyberg, Nelson, & Boggs, 2008). While CPRT studies have demonstrated reductions in reports of parenting stress, improvement in parental displays of empathy, improved parental report of acceptance of the child, and reductions in parent perception of child behavior problems, there are several limitations in the CPRT research on the basis of the parameters defined for well

conducted studies. Table 1 provides an overview of CPRT according to several of the characteristics of a "well conducted" study.

Inconsistent use of random assignment often characterizes CPRT research. Participants have been assigned to experimental or control groups based on geographic location (Glover & Landreth, 2000), availability to participate in treatment (Kale & Landreth, 1999; Kidron & Landreth, 2010; Tew et al., 2002), or on a voluntary basis (Post et al., 2004). Researchers have attempted, but have been unable, to achieve random assignment due to high attrition rates (Harris & Landreth, 1997). Several studies simply report that participants were "assigned" to groups without specifying whether assignment was random (Jang, 2000; Smith & Landreth, 2004). Several studies employed random assignment without matching participants across groups on demographic or clinical variables (Bratton & Landreth, 1995; Lee & Landreth, 2003; Yuen et al., 2002). One study reported random assignment and matching participants on educational level, ethnic origin and age of child (Landreth & Lobaugh, 1998).

CPRT studies frequently incorporate non-standardized measures to evaluate treatment outcomes. Parental display of empathy is evaluated using the Measurement of Empathy in Adult-Child Interactions Scale (*MEACI*; Stover, Guerney, & O'Connell, 1971). Parental acceptance of the child is evaluated using the Porter Parental Acceptance Scale (PPAS; Porter, 1954), and parent report of child behavior problems has often been assessed using the Filial Problem Checklist (FPC). The MEACI and FPC have frequently been used in filial therapy research. Data regarding validity and reliability of these measures, however, are not available. Validity of the PPAS was established by agreement of a minimum of three of five expert judges on all of the items (Porter, 1954;

Table 1

Summary of CPRT Research

	Population	Sample Characteristics Provided	Number completers	Comp. Group	Random assignment	Measures
Bratton & Landreth 1995	Single parents	Parent age, ethnicity, educational level, marital status, employment, caregiver; child age, gender	43 (22 exp)	NTC	Yes	MEACI*, PPAS*, PSI*, FPC*
Chau & Landreth, 1997	Chinese	Parent age, educational level, caregiver, employment; child age, gender	34 (18 exp)	NTC	Based on availability	MEACI*, PPAS*, PSI*
Costas & Landreth, 1999	Sexually abused children	Parent age, ethnicity, educational level, marital status, income, caregiver; child age, gender, age at abuse, in family abuse, receiving concurrent treatment	26 (14 exp)	NTC	Yes	MEACI*, PPAS*, PSI*, CBCL-P
Glazer-Waldman et al. 1992	Chronic illness	Not given	5	NA	NA	PPAS
Glover & Landreth, 2000	Native American	Parent age, educational level, income, employment, alcohol abuse, caregiver; child age, gender	21 (11 exp)	Wait list control	Based on community	MEACI*, PPAS, PSI
Harris & Landreth, 1997	Incarcerated mothers	Parent ethnicity, age, educational level, income, marital status; child age, gender	22 (12 exp)	NTC	Abandoned due to attrition	MEACI*, PPAS*, PSI, FPC*
Jang, 2000	Korean	Parent age, educational level, employment; child age, IQ	30 (14 exp)	NTC	"assigned"	MEACI*, PPAS, PSI, FPC*
Kale & Landreth, 1999	learning difficulty	Parent age, ethnicity, educational level, caregiver; child learning difficulty	22 (11 exp)	NTC	Based on availability	PPAS*, PSI*, CBCL-P, CBCL-T
Landreth & Lobaugh, 1998	Incarcerated fathers	Parent age, ethnicity, educational level; child gender, age	Not stated; 32 (16 exp) enrolled	NTC	Yes	PPAS*, PSI*, FPC*
Lee & Landreth, 2003	Immigrant Korean	Parent age, educational level, time in US, employment; child age, gender	32 (17 exp)	NTC	Yes	MEACI*, PPAS*, PSI*

Table 1 – Continued

	Population	Sample Characteristics Provided	Number completers	Comp. Group	Random assignment	Measures
Smith & Landreth, 2003	Witnesses of domestic violence	Child gender, age, ethnicity	11 (11 exp)	NTC & other treat-ment	NA	MEACI*, CBCL-P*
Smith & Landreth, 2004	Hearing impaired	Teacher gender, ethnicity; child gender, ethnicity, age	24 (12 exp)	NTC	"assigned"	MEACI*, CBCL-T*
Tew et al., 2002	Chronic illness	Parent marital status, gender, ethnicity	23 (12 exp)	NTC	Based on availability	PPAS*, PSI* CBCL-P*
Yuen, Landreth & Baggerly, 2002	Immigrant Chinese	Parent age, educational level, employment, marital status, time in US, caregiver; child gender, age	Not stated; 35 enrolled (18 exp)	NTC	Yes	MEACI*, PPAS*, PSI*, FPC*

Note. Dependent variables related to child mood or self-concept were omitted. * = statistically significant results for experimental group; NTC=No treatment control; NA=not applicable; Exp=experimental group; CBCL-P = Child Behavior Checklist Parent Version; CBCL-T = Child Behavior Checklist Teacher Versions; FPC = Filial Problem Checklist; MEACI = Measurement of Empathy in Adult-Child Interactions; PPAS = Porter Parental Acceptance Scale; PSI = Parenting Stress Index.

as reported in Kale & Landreth, 1999).

Outcomes in CPRT research are limited in additional ways. First, the majority of measures used in CPRT research (e.g., PPAS, FPC, CBCL) are self-report questionnaires that are completed by the individual implementing the treatment. This threatens the validity of these data in that ratings are subjective and may be biased due to parental expectancy of treatment gains. Second, the integrity of posttest data may be compromised in some studies in which posttests have been conducted at the last treatment session (Glazer-Waldman et al., 1992; Kale & Landreth, 1999; Kidron & Landreth, 2010; Smith & Landreth, 2004; Tew et al., 2002). Conducting posttests immediately following therapy sessions may bias parent perception or report of their own behavior or their child's behavior. The timing of posttest sessions has not been indicated

in all studies (Harris & Landreth, 1997; Yuen et al., 2002; Smith & Landreth, 2004). Finally, mean pretest and posttest scores were not reported in all studies (Costas & Landreth, 1999; Jang, 2000; Kale & Landreth, 1999; Lee & Landreth, 2003; Smith & Landreth, 2004). Unless specified by the authors, omissions of this information make the impact of change difficult to interpret (e.g., shift from clinical level to normal range).

Treatment integrity data are lacking. The majority of published CPRT research has been conducted with Dr. Garry Landreth, author of the CPRT manual. No studies, however, have reported treatment integrity data. There are no data-based indications that CPRT has been implemented with fidelity.

CPRT studies commonly specify inclusion criteria for participants (e.g., age of child, parental reading ability, parent agreement to complete weekly play sessions, willingness to sign consent form), note the number of participants, and frequently note sample characteristics (i.e., basic demographics). Presenting concerns, however, are not clearly identified across studies. In part, this relates to the nature of the treatment goals, in that the focus of CPRT is specific to parent-child relationship enhancement rather than ameliorating a specific problem behavior of the child. Outcome measures selected by researchers (i.e., FPC and CBCL) suggest that externalizing and internalizing child behavior problems have been a concern. Assessing the extent to which this treatment is appropriate for specific presenting concerns is challenging in the absence of this information.

Several additional limitations are noted in the CPRT research. Sample sizes are, generally, small which limits statistical power as well as the generality of the results. Excluding qualitative reports (Kidron & Landreth, 2010; Landreth & Bratton, 2006),

CPRT studies have not provided short-term or long-term follow-up data, making the lasting impact of CPRT undeterminable. Generalization data are all but lacking in the CPRT literature. Kale and Landreth (1999) and Post et al. (2004) are the only researchers to evaluate both parent and teacher report of child behavior problems.

Finally, many studies have evaluated a modified version of the manualized 10-week treatment. CPRT has been evaluated when presented in an abbreviated or "intensive" fashion (Smith & Landreth, 2003; Jang, 2000; Harris & Landreth, 1997). The treatment has been modified to be presented in Cantonese (Yuen et al., 2002), Chinese (Chau & Landreth, 1997), Korean (Lee & Landreth, 2003) and American Sign Language (Smith & Landreth, 2004). CPRT has been evaluated when used with incarcerated parents in which play sessions occurred in the jail setting (Harris & Landreth, 1997; Landreth & Lobaugh, 1998). CPRT has been modified to be implemented with teachers in a school setting (e.g., Smith & Landreth, 2004). Several studies have evaluated the treatment when modified in multiple ways. For example, Harris and Landreth (1997) evaluated CPRT as presented over the course of five weeks with play sessions occurring in a jail setting.

Few studies have evaluated the standard treatment without significant modification (Bratton & Landreth and 1995; Costas & Landreth, 1999; Galzer-Waldman et al., 1992; Kale & Landreth, 1999; Tew et al., 2002). Several studies that adhere to the standard ten week model provide vague indications of minor treatment modifications such as using three-fourths of two sessions (i.e., total of three hours) for pretesting and posttesing (Kale & Landreth, 1999) or allowing participants to make-up missed sessions individually (Costas & Landreth, 1999). While this body of work provides an indication

of the flexibility and versatility of this treatment, it does not provide strong evidence for the effectiveness of the standard treatment.

Purpose

The purpose of the current study was to evaluate the impact of the manualized CPRT protocol, when implemented on an individual basis, for parents with children displaying disruptive behavior. Impact was assessed through parent reports of (a) child disruptive behavior, (b) parenting relationship, (c) acceptance of the child, and (d) parenting stress, as well as through direct behavior observations within sessions of (e) parental displays of empathy, (f) positive parent behaviors and (g) child disruptive behavior.

The current study also attempted to address several of the aforementioned limitations in the CPRT research. First, the current study evaluated the impact of CPRT for a specific presenting concern to aid in evaluation of the treatment for a particular problem. Second, in addition to evaluating treatment outcomes with the same non-standardized measures commonly used in CPRT studies, the current study also used several standardized measures. Furthermore, two direct observation measures were used to provide additional data not based on parent self-report. Scores for all participants for all measures are reported, to facilitate interpretation of the full impact of the treatment (e.g., shift from clinically significant to normative range performance). Posttreatment assessment was conducted following treatment termination rather than during the final treatment session, in order to minimize potential bias in parent report. Finally, the current study included assessment of treatment integrity (i.e., implementation fidelity) as

well as short-term follow-up. The current study was approved by the Human Subjects Institutional Review Board (HSIRB) at Western Michigan University on November 24, 2010 (HSIRB Project Number: 10-09-04).

METHOD

Participants

Tables 2 and 3 display parent and child participant characteristics. Participants who completed treatment included seven parents and their five children. Parents were five biological mothers and two biological fathers; two sets of parents participated (participants 2 and 1; participants 6 and 7). The majority of parents (6/7) were married. Minimum educational level was 1-year of college, with the majority of parents having completed 2-4 year college degrees. Five of seven parents were employed at least part-time, one was a full-time college student, and one was unemployed. Parents ranged in age from 29 to 42; average parent age was 37. Parents were predominantly Caucasian (4/7). Children ranged in age between 3 years 3 months to 8 years 9 months; mean age was 64 months. Children were predominantly male (4/5) and Caucasian (3/5). Four of five children were enrolled in school. No children were taking psychotropic medications to manage behavior, impulsivity, or inattention during the study.

Three other parents (and their three children) enrolled in, but did not complete, treatment. These parents were biological mothers ranging in age from 24-42 (average age 30). Two had completed high school and one had completed 4 years of college. All were Caucasian. Children of these parents were all male. Average child age was 56 months.

To be included in the study, parent report of child disruptive behavior on the Eyberg Child Behavior Inventory (ECBI) Intensity Score had to be in the elevated range (i.e., raw score 131; 60T). Additional inclusion criteria included no current participation of the child or family in psychotherapy, play therapy, or parent training courses or

Table 2

Parent Participant Demographics

Parents Who Completed Treatment							
Participant	Age	Gender	Ethnicity	Marital Status	Educational Level	Occupation	Income
1	42	Male	African American	Married	Masters	Unemployed	--
2	36	Female	African American	Married	College 1 year	Student	--
3	35	Female	Caucasian	Divorced	College 2 years	Hair stylist/manager	--
4	29	Female	African American	Married	College 2 years	Legal assistant Student (P)	50,000-74,999
5	37	Female	Caucasian	Married	College 4 years	Non-profit development	75,000-99,999
6	41	Male	Caucasian	Married	College 4 years	Salesperson	100,000-249,999
7	41	Female	Caucasian	Married	College 4 years	Server (P)	100,000-249,999
Parents Who Did Not Complete Treatment							
	24	Female	Caucasian	Divorced	College 4 years	Home health care (P) Custodian (P)	<15,000
	25	Female	Caucasian	Divorced	High School 4 years	Student	<15,000
	42	Female	Caucasian	Married	High School 4 years	Cashier (P)	50,000-74,999

Note. All occupations are full-time. (P) = part-time; -- = information not provided by participant.

workshops as well as parental agreement to withhold these treatments for the duration of participation in the study. Participants were excluded if children had prior diagnoses of autism spectrum disorder, mental retardation, or major sensory impairment (e.g., hearing impairment, visual impairment). Children taking psychotropic medication(s)

Table 3

Child Participant Demographics

Children of Parents Who Completed Treatment				
Parent Participant	Gender	Age	School	Ethnicity
1 & 2	Male	6 years 2 months	Kindergarten	African American
3	Male	3 years 8 months	Not Applicable	Caucasian
4	Male	3 years 3 months	Preschool	African American
5	Male	4 years 10 months	Preschool	Caucasian
6 & 7	Female	8 years 9 months	Third Grade	Caucasian
Children of Parents Who Did Not Complete Treatment				
	Male	4 years 5 months	Preschool	Caucasian
	Male	3 years 7 months	Not Applicable	Caucasian
	Male	5 years 11 months	Preschool	Mexican/Caucasian

(e.g., stimulant medication for symptoms of Attention-Deficit/Hyperactivity Disorder) were excluded if they had not been stabilized on their current medication and dosage for a minimum of 4 weeks at the point of the initial assessment session. Families who did not meet the inclusion criteria were provided referrals to appropriate community service providers. Aside from receiving free treatment, no incentives were provided for participation in the study.

Recruitment and Assessment

Participants were recruited through primary care physicians, local school staff, and day care providers, in the southwest Michigan area who were notified of a free treatment for children with disruptive behavior. Following referral, each potential

participant was contacted by telephone for a brief screening interview to rule out families not meeting inclusion criteria. If the family appeared to qualify for inclusion following the screening, they were invited to participate in an assessment interview. At the beginning of this interview, participants were informed about the study and invited to participate. Written consent was obtained from the parent and verbal assent was obtained for children ages 3 to 6. Children ages 7 to 9 were asked to assent in writing. During the assessment interview the ECBI was administered. If parent report of the child's behavior was in the elevated range on the ECBI Intensity score, the parent completed the remaining assessments for the pretreatment assessment including the CBCL, ECBI, FPC, Parenting Relationship Questionnaire (PRQ), Porter Parental Acceptance Scale (PPAS), and Parenting Stress Index/Short Form (PSI/SF). In addition, the parent was videotaped completing a 20-minute play session with his/her child for the purpose of scoring the Measurement of Empathy in Adult-Child Interactions (MEACI) and Dyadic Parent-Child Interaction Coding System (DPICS). Following the pretreatment assessment, families were enrolled in treatment.

Posttreatment assessments were conducted one week following the final treatment session. All pretreatment and posttreatment assessment sessions took place in a university outpatient psychology training clinic in Kalamazoo, Michigan and were conducted by a doctoral candidate in clinical psychology. A follow-up assessment was conducted one-month following the posttreatment assessment session. All measures at one-month follow-up were sent to and returned by participants through the mail.

Experimental Research Design

The impact of CPRT was evaluated in the context of a natural multiple baseline across participants design (Hayes, Barlow, & Nelson-Gray, 1999). Dependent variables included parent report of (a) child disruptive behavior, (b) parenting relationship, (c) acceptance of the child, (d) parenting stress, and direct observation of (e) parental displays of empathy, (f) positive parent behaviors and (g) child disruptive behavior.

Following enrollment in the study, parents completed a weekly baseline assessment of their child's disruptive behavior (i.e., ECBI). Weekly baseline assessments were administered by telephone. Treatment was initiated in a staggered fashion such that each family began treatment after completing three, four, or five baseline assessments. Families were randomly assigned to the differing baseline durations. Due to intermittent inability to contact participants by phone during the baseline phase, three or four baseline assessments were completed per participant. An exception to this was Participant 1 (P1), a father of a child who was already enrolled in the study with his mother. P1 entered the study beginning with session 2 (such that both parents were able to participate in treatment simultaneously) following a change in his availability. P1 completed pretreatment assessment but did not complete baseline assessments.

With implementation of treatment, the ECBI was administered prior to each weekly therapy session. Additionally, the MEACI and DPICS were coded using parent videotapes of play sessions (which began following session 2). All dependent measures were completed at pretreatment and posttreatment assessments. All measures, excluding observational measures (i.e., MEACI and DPICS), were completed at one-month follow-up.

Dependent Measures

Parent Report Measures

Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999). The ECBI is a 36-item parent-rating scale of disruptive behavior in children between the ages of 2 and 16. Parents indicate the occurrence and intensity of problem behaviors. The ECBI produces a Problem Scale, which addresses the number of behavior problems the parent finds difficult, and the Intensity Scale, which examines the frequency of behavior problems. Results are presented in T-scores (M=50, SD=10). Clinically significant scores are indicated by T=60 or greater. The ECBI has an internal consistency of .95 and .93 for the Intensity and Problem scales, respectively (Colvin, Eyberg, & Adams, 1999). Test-retest reliability coefficients have been established at .80 and .85 across 12 weeks and .75 and .75 across 10 months for the Intensity and Problem scales, respectively (Funderburk, Eyberg, Rich, & Behar, 2003). The ECBI takes approximately 5 to 10 minutes to complete. The ECBI is suitable for administration on the telephone and for weekly administrations. For the purposes of the current study, only ECBI Intensity scores were evaluated. The ECBI was administered at pretreatment, baseline, prior to each therapy session, posttreatment, and one-month follow-up.

Child Behavior Checklist for 1 ½ to 5 Year Olds; Child Behavior Checklist for Ages 6-18 (CBCL; Achenbach & Rescorla, 2000, 2001). The CBCL is a parent-rating scale of a child's externalizing (e.g., acting out) and internalizing (e.g., anxious) behaviors. The school-age CBCL contains 113 items while the preschool version consists of 100 items. Parent responses yield Internalizing, Externalizing, and Total

scores. Results are presented in T-scores (M=50, SD=10). Clinically significant scores are indicated by T=60 or greater. Test-retest reliability across eight days have been established at .91 for the Internalizing scale, .92 for the Externalizing scale and .94 for the Total Problems scale for the CBCL for ages 6-18. The CBCL has an internal consistency of .90 (Internalizing), .94 (Externalizing), and .97 (Total Score) (Achenbach & Rescorla, 2001). Test-retest scores across eight days have been established at .90 for the Internalizing, .87 for the Externalizing scale, and .90 for the Total Problems scale for the preschool version. Internal consistency has been established for these three scales at .89, .92, and .95, respectively (Achenbach & Rescorla, 2000). The CBCL can be completed in 10 to 15 minutes. Ratings of behavior on the school-age version (ages 6-18) are relative to the past 6 months; ratings on the preschool version are relative to the past 2 months. Respondents can be asked to base their ratings on shorter periods (Achenbach & Rescorla, 2000, 2001). For the purpose of the current study, all parents were asked to rate their child's behavior based on the past month. The CBCL was administered at pretreatment, posttreatment, and one-month follow-up assessments.

Filial Problem Checklist (FPC; Horner, 1974). The FPC is a 108-item questionnaire that measures parent report of child problem behaviors. The age range for which this measure is appropriate is not specified. Studies which have used the FPC have assessed the behavior of children ranging in age from 2 to 10 years old. Parents rate the occurrence and severity of various problem behaviors for their children (e.g., destroys property of others, does not do chores). Severity markers on this assessment include "do not view as a problem," "viewed as moderate problem," and "severe problem." The FPC yields a total score which can range from zero to 324; results are reported simply as a

total score. There are no cut-off scores which indicate clinically significant problems. Normative data regarding validity and reliability are not available for this instrument. The FPC has been frequently used in filial therapy research to measure the effectiveness of filial therapy in reducing child problem behaviors. The FPC was administered at pretreatment, posttreatment, and one-month follow-up assessments.

Parenting Relationship Questionnaire (PRQ; Kamphaus & Reynolds, 2006). The PRQ is a parent-report questionnaire designed to measure parent perception of the parent-child relationship and relationship variables that contribute to a child's social and emotional development. A 45-item preschool form (PRQ-P) is used for children ages 2 to 5, and a 71-item Child and Adolescent form (PRQ-CA) is used for children ages 6 to 18. The PRQ yields scores on the following scales: Attachment, Communication, Discipline Practices, Involvement, Parenting Confidence, Satisfaction with School, and Relational Frustration (Communication and Satisfaction with School are not included on the preschool form). Results are reported in T-scores (M=50, SD=10). Clinically significant scores for the Attachment, Involvement, Discipline Practices, and Parenting Confidence scales are indicated by T=40 or lower, while clinically significant levels on the Relational Frustration scale are indicated by T=60 or higher. The PRQ scales have an internal consistency ranging from .82 to .87 and test-retest reliability scores across 33 to 35 days range from .78 to .89 and .72 to .81 for the PRQ-P and PRQ-CA, respectively (Rubinic & Schwickrath, 2010). Reliability for the PRQ-P scales is as follows: Attachment: .82, Discipline Practices: .89, Involvement: .80, Parenting Confidence: .78, and Relational Frustration: .82. Reliability for the PRQ-CA scales is as follows: Attachment: .76, Communication: .84, Discipline Practices: .72, Involvement: .79, Parenting Confidence:

.77, and Relational Frustration: .82. The PRQ requires approximately 10 to 15 minutes to complete. For the purpose of the current study, the Satisfaction with School scale was not evaluated for children age 6 and older. The PRQ was administered at pretreatment, posttreatment, and one-month follow-up assessments.

Parenting Stress Index/Short Form (PSI/SF; Abidin, 1995). The PSI/SF is an abbreviated version of the Parenting Stress Index. It is a 36-item questionnaire designed to identify parent-child dyads that are under stress and are experiencing or at risk for developing dysfunctional parenting and child behavior problems. Results are reported in percentile scores; clinically significant scores are at or above the 85th percentile. The PSI/SF can be administered to parents of children between the ages of 1 month to 12 years. The PSI/SF yields a Total Stress score and three scales: Parental Distress, Parent-Child Dysfunctional Interaction, and Difficult Child. The Total Stress score is a measure of the parent's overall parenting stress. The Parental Distress scale reflects personal problems that lead to stress in the parenting role (e.g., lack of social support). The Parent-Child Dysfunctional Interaction scale represents parent perception that his/her interactions with the child are not rewarding. The Difficult Child scale assesses the child's behavior problems that make him/her difficult to manage and lead to frustration for the parent. Independent research regarding the validity of the PSI/SF has not been completed. Correlations, however, between the PSI/SF and the PSI for a sample of 530 subjects from the normative sample have been calculated to be .94 between the PSI/SF and PSI Total Stress scores, .92 between PSI/SF Parental Distress and PSI Parent Domain, .87 between PSI/SF Difficult Child and PSI Child Domain and .73 and .50 between the PSI/SF Parent-Child Dysfunctional Interaction and PSI Child Domain and

Parent Domain, respectively (Abidin, 1995). Test-retest coefficents were .84 for the Total Stress, .84 for Parental Distress, .78 for Difficult Child, and .68 for Parent-Child Dysfunctional Interaction scales, across a six month period. The PSI/SF requires approximately 10 minutes to complete. The PSI was administered at pretreatment, posttreatment, and one-month follow-up assessments.

Porter Parental Acceptance Scale (PPAS; Porter, 1954). The PPAS is a 40-item questionnaire which measures parental acceptance of their child. The PPAS yields a total score and the following scales: Respect for the Child's Feelings and the Right to Express Them (Express Feelings), Appreciation of the Child's Uniqueness (Uniqueness), Recognition for the Child's Need for Autonomy and Independence (Autonomy), and Unconditional Love. Results are reported simply as scale scores ranging from 10 to 50 and a total score ranging from 40 to 200; the higher the score, the more accepting the parent is of the child. There are no cut-off scores which indicate clinically significant problems. Per Landreth and Lobaugh (1998) and Kale and Landreth (1999), Porter (1954) reported a split-half reliability correlation of .76 which was raised by the Spearman Brown formula to .86. Burchinal, Hawkes, and Gardner (1957) reported a split-half reliability coefficient of .66 and a Spearman Brown total test reliability coefficient of .80. Both reported coefficients were significant beyond the .01 level. Validity of the instrument was established by agreement of a minimum of three of five expert judges on all of the items. Internal consistency was determined by an item analysis that found that 39 of 40 items discriminated between high and low-scoring mothers and fathers. The instrument was deemed to be internally consistent (Burchinal et al., 1957). The PPAS was administered at pretreatment, posttreatment, and one-month follow-up assessments.

Direct Observation Measures

Measurement of Empathy in Adult-Child Interactions Scale (MEACI; Stover, Guerney, & O'Connell, 1971). The MEACI is a 3-minute partial interval behavioral observation coding system that measures parent demonstration of empathic behaviors during parent-child play sessions. The MEACI yields a total score and three scales: Communication of Acceptance (Acceptance), Allowing Self-Direction (Self-Direction), and Involvement. The Acceptance score is determined by scoring the highest and lowest level responses per interval; an average score is then derived from these scores. The Self-Direction score is determined by scoring the lowest level response per internal. The Involvement score is determined by ranking the "most characteristic level" per interval. For each scale, a total score is determined by adding the sum of each interval score. The total MEACI score is a sum of each of these scores. The Acceptance scale codes verbal and non-verbal expression of parental acceptance or rejection. A low score indicates the parent verbally and non-verbally conveys acceptance of the child's feelings while a high score on this scale indicates the parent is strongly critical/rejecting. The Self-Direction scale indicates the parents' willingness to follow the child's lead during play as opposed to controlling the child's behavior. A low score indicates that the parent follows the child's lead. A high score indicates that the parent "persuades, demands, interrupts, interferes, or insists" with the child's play. Finally, the Involvement Scale refers to the adult's attention to and participation in the child's activity. Low scores indicate that the parent paid more attention to the child than to the objects being used, whereas, high scores indicate the child was not provided responses for prolonged periods. Results are reported simply as individual scale scores ranging from 6 to 30 and a total score ranging

from 18 to 90. The levels of each of these behaviors are recorded retrospectively at 3-minute consecutive intervals for a minimum of six intervals. The MEACI can be used for in vivo or videotaped observations. Validity and reliability data are not available on this measure. The MEACI has frequently been used in filial therapy research. The MEACI was used to code videotapes of parents' weekly play sessions as well as play sessions conducted at pretreatment and posttreatment assessments.

Dyadic Parent-Child Interaction Coding System (DPICS; Eyberg, Nelson, Duke, & Boggs, 2005). DPICS is a behavioral observation coding system that measures observed parent-child interactions and occurrences of child disruptive behavior. DPICS is often used to evaluate treatment progress in Parent-Child Interaction Therapy but can be adapted to other treatments for the same purpose. DPICS is implemented in the context of 5-minute observations which vary by the level of parental involvement (e.g., child-centered play, clean-up task). During these observations, the occurrence of designated parent and child behaviors are recorded to produce a total frequency of each behavior per 5-minute observation. Parent categories recorded for the current study included parent positive behaviors (i.e., behavior descriptions, reflections) labeled praise, negative talk, and direct commands (see Table 4). Child categories recorded for the current study included child negative behaviors (i.e., negative talk, yell, whine), compliance and noncompliance to parent commands (see Table 4). Normative data for DPICS are restricted to children between the ages of 3 and 6 years. Mean percent agreement of videotaped coding during child-centered play have been established as follows: behavior description 32%, reflection 45%, direct command 68%, compliance 63%, noncompliance 48%, whine 50%, and yell 52% (Eyberg et al., 2005). DPICS can

Table 4

Dyadic Parent-Child Interaction Coding System (DPICS) Category Definitions

Behavior	Definition
Parent Category	
Positive Behaviors	
Behavior Description	Non-evaluative, declarative sentences or phrases in which the subject is the other person and the verb describes that person's ongoing or immediately completed (< 5-s) observable verbal or nonverbal behavior
Reflection	Declarative phrase or statement that has the same meaning as the child's verbalization
Negative Talk	Disapproval of the child or the child's attributes, activities, products, or choices; sassy, sarcastic, rude, or impudent speech
Labeled Praise	Positive evaluation of a specific behavior, activity, or product of the child
Direct Command	Declarative statements that contain an order or direction for a vocal or motor behavior to be performed and indicate that the child is to perform this behavior
Child Category	
Negative Behaviors	
Negative Talk	Verbal expression of disapproval of the parent or the parent's attributes, activities, products, or choices; includes sassy, sarcastic, rude, or impudent speech
Yell	Screech, scream, or shout, or any verbalization or vocalization that is so loud as to be aversive
Whine	Utterance or verbalization emitted in a slurring, moaning, high-pitched, or falsetto voice
Compliance	Child performs, begins to perform, or attempts to perform a behavior requested by the parent within 5-s
Non-Compliance	Child does not perform, attempt to perform, or stops attempting to perform the requested behavior within 5-s

Note. Definitions from Eyberg, Nelson, Duke, & Boggs, (2005).

be coded in vivo or from videotapes with coding beginning following a 5-minute "warm-up period." DPICS were used to code videotapes of parents' weekly play sessions as

well as play sessions conducted at pretreatment and posttreatment assessments. Five minutes of each play session were coded.

Participant Satisfaction and Follow-up Measures

Client Satisfaction Questionnaire (CSQ; Larsen, Attkisson, Hargreaves, & Nguyen, 1979). The CSQ is an eight-item questionnaire which measures client satisfaction with treatment. Raters indicate their satisfaction as poor, good, fair, or excellent for each item. The CSQ has an internal consistency of .93 (Larsen et al., 1979). The CSQ was administered at posttreatment assessment.

Play session follow-up questionnaire. Participants completed a 4-item questionnaire in which raters indicated if, and how often, they had conducted independent play sessions with their child. Participants also reported if they had conducted play sessions with their other children. The Play Session Follow-up Questionnaire was administered at posttreatment and one-month follow-up assessments.

Independent Variable and General Procedures

Child Parent Relationship Therapy (CPRT) is a manualized 10-session filial therapy treatment in which parents are taught child-centered play therapy skills which focus on enhancing the parent-child relationship (Bratton, Landreth, Kellam, & Blackard, 2006). CPRT is typically implemented in a group format, but can be used for individual families (Landreth & Bratton, 2006). Under these circumstances the authors recommend that session duration be reduced to one hour rather than the two hours used for group sessions. For the purposes of the current study, treatment was conducted as outlined in

the Child Parent Relationship Therapy Treatment Manual (Bratton et al., 2006) with the following exceptions: treatment was administered over six sessions, sessions were conducted with individual families and session duration was 90-120 minutes. Treatment consisted of six treatment sessions with the parent and seven 30-minute play sessions with the parent and child. Treatment sessions were provided once weekly. Play sessions were implemented twice weekly following the second treatment session and once weekly following session 5 (see Table 5).

Table 5

Sequence of Treatment and Play Sessions

	Content
Week 1	Pretreatment assessment
Week 2-3	Baseline
Week 4	Session 1
Week 5	Session 2 and Play Sessions 1 and 2
Week 6	Session 3 and Play Sessions 3 and 4
Week 7	Session 4 and Play Sessions 5 and 6
Week 8	Session 5 and Play Session 7
Week 9	Posttreatment assessment
	One-month follow-up

Initial sessions of CPRT addressed skills to prepare parents to implement 30-minute play sessions with their child. Subsequent sessions focused on supervision of parents' implementation of these skills while simultaneously learning additional skills. In general, CPRT sessions were structured to begin with a review of the previous week's homework, followed by instruction on a new skill, role play of the introduced skill, and

homework assignment for the upcoming week. Once parents were conducting play sessions with their child (sessions 3 through 6), CPRT sessions incorporated viewing and "supervision" of parents' videotaped play sessions.

The first CPRT session (content included information typically covered in sessions 1 and 2 per CPRT manual) provided parents an overview of treatment goals and objectives. Parents were oriented to the concept that treatment would focus on their relationship with their child, not on their child's problems, and that play is the method through which children communicate their feelings and experiences. Parents were also informed that they would implement 30-minute play sessions with their child. Didactic instruction was provided on reflective responding, tracking and communicating understanding followed by an in-session exercise/worksheet targeting these skills. Reflection involves the repetition of the basic verbal message stated by the child. For example, a parent might state "you like to play dolls" after the child said "playing dolls is fun." Tracking is a running commentary or play-by-play narrative of the child's play. For example, a parent might state "you're pushing the car" while they observe the child pushing a car. Communicating understanding is a statement reflecting the child's emotional experience (e.g., "you're frustrated" given observable nonverbal displays of frustration). Empathic responding was modeled for the parent. Parents role-played these skills with the therapist, in session. Parents began to prepare for implementing their 30-minute play sessions by reviewing basic principles for play sessions. These principles specified that the child leads the play while the parent follows, the parent empathizes with the child, the parent communicates understanding to the child by verbalizing feelings experienced by the child, and parents identify limits on the child's behavior (e.g.,

not physically hurting the parent) which are to be implemented only when needed. Toys that would be used in play sessions were reviewed. The session commenced with role play of the basic play session skills. Parents received homework on identifying emotions in their child and making reflective responses specific to those emotions.

Play session "do's and "don'ts" were introduced in the second session (content included information typically covered in session 3 per CPRT manual). Play session "do's" included: adequate preparation for the session, let the child lead, join in the child's play as a follower, verbally track the child's play, reflect the child's feelings, set firm and consistent limits, salute the child's power and encourage effort, and be verbally active. Parents were instructed to avoid criticizing behavior, praising the child, asking questions, teaching, preaching, initiating activities, interrupting sessions, or being passive participants. Parents were provided a checklist "job aid" for implementing play therapy sessions which outlined activities for the parents to complete prior to (e.g., have child use bathroom), when beginning, during (e.g., give a 5-minute notice before ending the play session), and when ending the play session (e.g., do not exceed time limit by more than two to three minutes). Next, parents role played the play session skills they had learned. Homework for this session involved making a "do not disturb" sign with their child so that others would not disturb the play session.

Following session 2, parents began implementing play sessions. The remaining therapy sessions incorporated review and supervision of these play sessions. Sessions 3 through 6 began with parents' verbal reports of their experiences followed by review of a videotaped play sessions completed by the parent. The therapist provided feedback,

support, and encouragement to the parent; correction was kept to a minimum, thus modeling the CPRT process itself.

Session 3 (content included information typically covered in sessions 4 and 5, per the CPRT manual) introduced the three-step limit setting method, ACT (i.e., Acknowledge your child's feeling, Communicate the limit, Target acceptable alternatives), followed by modeling of the skill by the therapist, and role play of the skill by the parent. For example, a parent might use ACT limit setting by stating the following in response to a child attempting to draw on the walls: "I know that you enjoy drawing on the walls (acknowledge the feeling), but the walls are not for drawing on (communicate the limit). You can draw on this paper or in this coloring book (target acceptable alternatives)." Additionally, this session focused on review of videos. Parents role-played play session skills and limit setting. Homework prescribed sandwich hugs and sandwich kisses (i.e., two caregivers hug or kiss the child at the same time).

Session 4 (content included information typically covered in sessions 6 and 7, per CPRT manual) introduced "choice-giving" as a strategy to teach responsibility and decision making to the child and to avoid potential problem behaviors. For example, a parent might state the following age-appropriate choice to a 4-year-old: "Do you want a peanut butter sandwich or a hot dog for lunch?" Parents also discussed common problems that occurred in play sessions. This session also focused on self-esteem building. Parents learned ways to respond to their child that gives the child credit for their ideas and efforts without praising the outcome. Homework consisted of writing a note to the child that identifies positive characteristics the parent appreciates about him or her.

A distinction was made between praise and encouragement in session 5 (content included information typically covered in sessions 8 and 9, per the CPRT manual). Parents were instructed to encourage their child's effort as opposed to praising the product of his or her effort. Praise is said to foster dependence in children by teaching them to rely on external sources of motivation; children can come to believe that their worth depends on others' opinions. Encouragement focuses on internal evaluation and facilitates the development of self-motivation. It teaches children to learn from their mistakes, have confidence, and feel useful through contribution. Homework for this session had parents identify one thing that went well in their play session, one thing that did not go well, and one thing they are struggling with outside of the play time.

This session also focused on advanced limit setting (i.e., if-then choice giving) in which choices are given as consequences for non-compliance. For example, a child is using markers to mark on the table, not a piece of paper. Following stating a limit three times, the parent might state "If you choose to play with the markers on the paper then you choose to play with the markers today. If you choose to continue to play with the markers on the table then you choose not to play with the markers for the rest of the day." In this session parents also learned about generalizing ACT limit setting and if-then choice giving outside of play sessions. For homework, parents were to notice the number of times they touched their children in day-to-day interactions. They were also asked to identify one issue they were struggling with outside of play sessions and identify how they could use their play therapy skills to address the issue.

Session 6 (content included information typically covered in session 10 per CPRT manual) was the termination session. The focus of this session was on reviewing skills

and concepts learned and emphasizing the importance of continuing play sessions at home.

Therapist

Each family was seen on an individual basis by a doctoral candidate in clinical psychology who had completed a two-day CPRT training workshop conducted by Dr. Garry Landreth. The therapist participated in weekly supervision meetings with a licensed clinical psychologist to review participant progress and ensure adherence to the treatment manual. All treatment and play sessions took place in a university outpatient psychology training clinic in Kalamazoo, Michigan.

Treatment Integrity and Reliability

The CPRT Therapist Skills Checklist (Bratton et al., 2006) and treatment integrity checklists based on the CPRT treatment manual outline were completed by the therapist following all treatment sessions. All CPRT sessions were videotaped. Treatment integrity data were obtained for 20% of sessions. Sessions were randomly selected and assessed by independent observers who were doctoral students in clinical psychology. Ratings completed by the therapist and the independent observer were compared to determine compliance with the treatment manual and to assess internal reliability. Treatment integrity was computed by dividing the total number of agreements by the total number of agreements plus disagreements and multiplying by 100. Average agreement on the CPRT Therapist Skills Checklist was 91% (range 86-100%). Average agreement on treatment integrity checklists was 99% (range 94-100%).

Interobserver agreement (IOA) data were collected on 22% of MEACI and DPICS ratings by an independent observer who was a doctoral student in clinical psychology. IOA on the MEACI was calculated for each individual scale. IOA was computed by dividing the total number of agreement intervals by the total number of agreement intervals plus disagreement intervals and multiplying by 100. Average agreement on the Acceptance, Self-Direction, and Involvement scales was 89% (range 67-100%), 88% (range 67-100%), and 94% (range 67-100%), respectively. IOA on the DPICS was calculated for each behavior (e.g., negative talk, direct command). IOA was computed by dividing the smaller total frequency by the larger total frequency and multiplying by 100. Average agreement for parent positive behaviors was 81% (range 64-100%). Agreement on negative talk was 100%. Average agreement for direct commands was 73% (range 0-100%). Average agreement for labeled praise was 82% (range 0-100%). Finally, average agreement for negative child behaviors was 91% (range 0-100%).

RESULTS

A total of twenty-six individuals contacted the investigator stating interest in the study. Twelve parents met with the investigator for screening to participate. Eleven parents were interested in participating in the study. Ten parents were eligible to participate and enrolled in the study. Seven parents (and their five children) completed treatment. Two participants discontinued participation following pretreatment assessment (i.e., did not participate in baseline or treatment). One participant discontinued participation following completion of all treatment components with the exception of the termination session and posttreatment assessment. Following drop-out, attempts were made to speak to these three participants, however, they were not able to be contacted. Reasons for drop-out were not identified. Of the seven participants that completed treatment, three completed one-month follow-up data.

The impact of CPRT on parent report of child problem behavior (i.e., ECBI, FPC, CBCL), parent report of parent-child relationship (i.e., PRQ), parenting stress (i.e., PSI/SF), parental report of acceptance of the child (i.e., PPAS), parental displays of empathy (i.e., MEACI), and observed parent-child interactions and observed child disruptive behavior (i.e., DPICS) were evaluated in the context of a natural multiple baseline across participants design. The process of change regarding parent report of child disruptive behavior (i.e., ECBI), parental displays of empathy (i.e., MEACI), observed parent-child interactions and observed child disruptive behavior (i.e., DPICS) were evaluated at the individual level. Additionally, any clinically significant change on all parent report measures was monitored per participant.

Group Level Results

Parent Report of Child Disruptive Behavior

Child Disruptive Behavior was measured by the ECBI, CBCL, and FPC. Table 6 presents the pretreatment, final baseline assessment, posttreatment, and one-month follow-up results for the ECBI. Consistent improvements in parent ratings of child disruptive behavior were noted from pretreatment and baseline to posttreatment assessments. For all participants, pretreatment ECBI ratings were in the clinically significant range (mean T=66.14; SD=3.8). At final baseline assessment, ratings remained clinically significant for 5/7 participants (mean T=63.43; SD=4.35), with ratings for the remaining 2 participants just below the cut-off for clinical significance (i.e., T=59). Ratings for all participants decreased to the normative range at posttreatment

Table 6

Eyberg Child Behavior Inventory (ECBI) Results

Participant	Pretreatment	Baseline	Posttreatment	One-month follow-up	Baseline to One-month
1	61	61*	45 (-1.6)	39 (-0.6)	(-2.2)
2	63	59	49 (-1.0)	47 (-0.2)	(-1.2)
3	73	70	61 (-0.9)	49 (-1.2)	(-2.1)
4	67	65	59 (-0.6)	--	--
5	67	62	58 (-0.4)	--	--
6	65	59	53 (-0.6)	--	--
7	67	68	50 (-1.8)	--	--

Note. Data are presented in T scores. M=50, SD=10; 60 or greater = clinically significant. Data in parentheses represent changes in terms of SD units (or z-scores) between the last baseline assessment and posttreatment, posttreatment and one-month follow-up, and the last baseline assessment and one-month follow-up. * = pretreatment assessment; -- = data were not returned.

(mean T=53.57; SD=5.94) with the exception of Participant 3 whose rating was just above the cut-off for clinical significance (i.e., T=61). Maintenance of within normal limits ratings was noted at one-month follow-up for all (3/3) participants (mean T=51.67; SD=6.43), including Participant 3. Figure 1 displays a scatterplot of the baseline to posttreatment effects for the overall ECBI scores. Results below the line represent posttreatment gains, while results above the line represent losses. As can be seen, all posttreatment scores indicated gains on this measure.

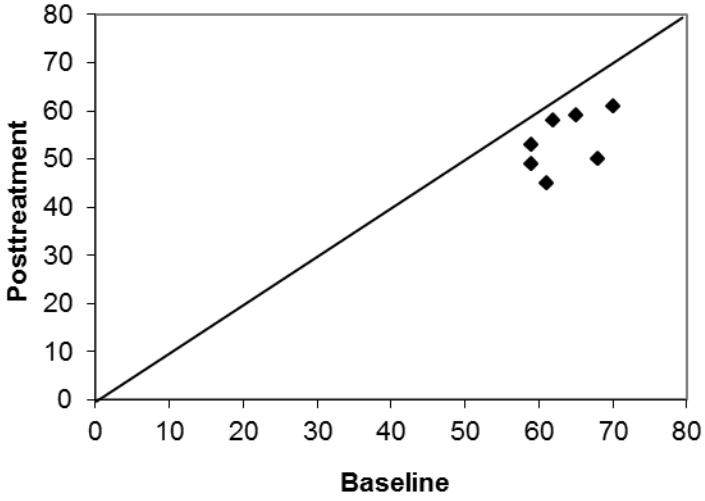

Figure 1. Scatterplot of Baseline to Posttreatment Effects for ECBI Intensity Scores

Table 7 presents the results for the CBCL. All participants reported improvements on the CBCL Total Problems scale at posttreatment. CBCL Total Problem scores were in the clinically significant range at pretreatment for 4/7 (57%) participants (mean T=61.86; SD=6.62). At posttreatment, these scores were in the clinically significant range for 2/7 (29%) participants (mean T=49.71; SD=13.68). One-month follow-up indicated clinically significant scores for 1/3 (33%) participants (mean T=42.67; SD=17.47). All

Table 7

Child Behavior Checklist (CBCL) Results

Scale	Participant	Pretreatment	Posttreatment	One-month follow-up	Pretreatment to one-month
Internalizing	1	60	41 (-1.9)	29 (-1.2)	(-3.1)
	2	50	41 (-0.9)	41 (0)	(-0.9)
	3	68	66 (-0.2)	64 (-0.2)	(-0.4)
	4	69	65 (-0.4)	--	--
	5	53	41 (-1.2)	--	--
	6	48	39 (-0.9)	--	--
	7	68	46 (-2.2)	--	--
Externalizing	1	59	33 (-2.6)	28 (-0.5)	(-3.1)
	2	63	33 (-3)	44 (1.1)	(-1.9)
	3	73	58 (-1.5)	55 (-0.3)	(-1.8)
	4	68	58 (-1)	--	--
	5	64	57 (-0.7)	--	--
	6	61	58 (-0.3)	--	--
	7	71	57 (-1.4)	--	--
Total Problem	1	60	26 (-3.4)	28 (0.2)	(-3.2)
	2	55	41 (-1.4)	38 (-0.3)	(-1.7)
	3	70	65 (-0.5)	62 (-0.3)	(-0.8)
	4	70	65 (-0.5)	--	--
	5	59	52 (-0.7)	--	--
	6	54	47 (-0.7)	--	--
	7	65	52 (-1.3)	--	--

Note. Data are presented in T scores. M=50, SD=10; 60 or greater = clinically significant. Data in parentheses represent changes in terms of SD units (or z-scores) between pretreatment and posttreatment, posttreatment and one-month follow-up, and pretreatment and one-month follow-up. -- = data were not returned.

participants reported improvements on the CBCL Externalizing Problems scale at posttreatment. Externalizing scores were clinically significant for 6/7 (86%) participants at initial assessment. Posttreatment data indicated scores in the clinically significant range for 0/7 participants; normative range ratings were maintained at one-month follow-up. Average pretreatment scores were T=65.57 (SD=5.22) which decreased to T=50.57 (SD=12.01) at posttreatment. One-month follow-up averages were T=42.33 (SD=13.58). All participants reported improvements on the CBCL Internalizing Problems scale at posttreatment. Internalizing scores were clinically significant at pretreatment for 4/7 (57%) participants (mean T=59.43; SD=9.13). At posttreatment,

internalizing scores remained in the clinically significant range for 2/7 (29%) participants (mean T=48.43; SD=11.86). One-month follow-up data indicated clinically significant scores for 1/3 (33%) participants (mean T=44.67; SD=17.79). Figures 2, 3, and 4 display scatterplots of the pretreatment to posttreatment effects for the CBCL Total Problems, Externalizing, and Internalizing scale scores. Results below the line represent posttreatment gains, while results above the line represent losses. All posttreatment scores indicated gains on these measures.

Results for the FPC are presented in Table 8. Consistent reductions in FPC scores were noted for all participants between pretreatment and posttreatment as well as between posttreatment and one-month follow-up assessments. Average pretreatment ratings were 86.14 (SD=21.93). A decrease to 52.57 (SD=29.45) was noted at posttreatment. Average one-month follow-up ratings were 31.67 (SD=46.29).

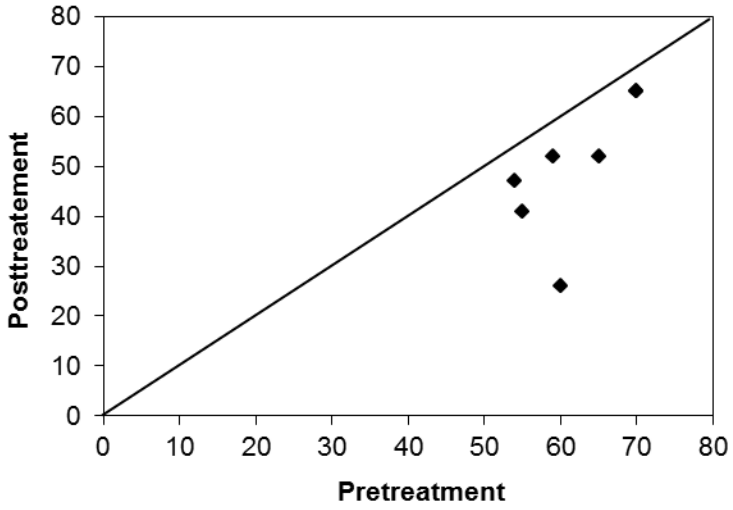

Figure 2. Scatterplot of Pretreatment to Posttreatment Effects for CBCL Total Problems Scores

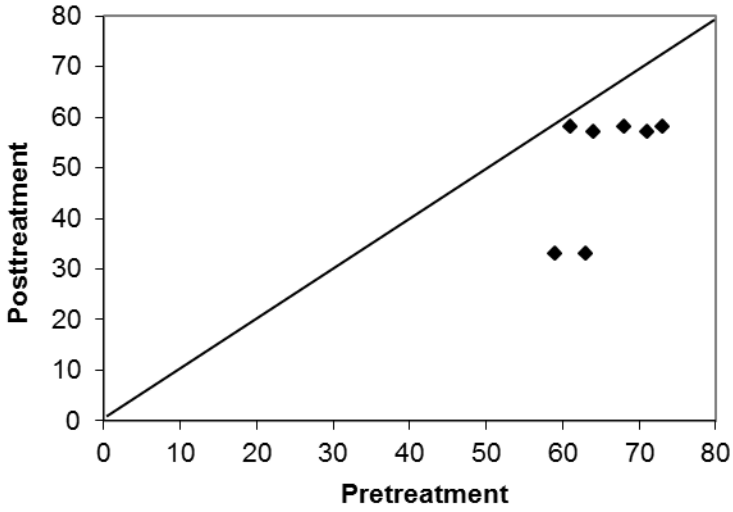

Figure 3. Scatterplot of Pretreatment to Posttreatment Effects for CBCL Externalizing Problems Scores

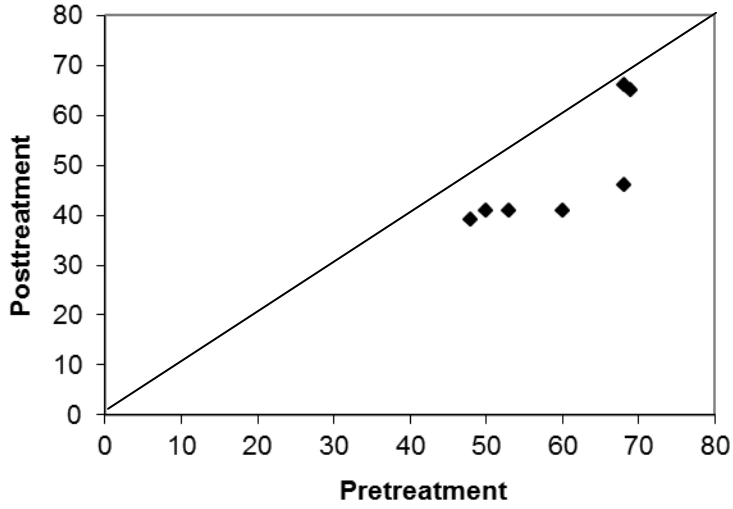

Figure 4. Scatterplot of Pretreatment to Posttreatment Effects for CBCL Internalizing Problems Scores

Table 8

Filial Problem Checklist (FPC) Results

Participant	Pretreatment	Posttreatment	One-month follow-up	Pretreatment to one-month
1	54	16 (-38)	2 (-14)	(-52)
2	63	24 (-39)	8 (-16)	(-55)
3	105	93 (-12)	85 (-8)	(-20)
4	113	84 (-29)	--	--
5	82	61 (-21)	--	--
6	85	56 (-29)	--	--
7	101	34 (-67)	--	--

Note. Data are presented in total scores ranging from zero to 324, with no reported clinical cut-off score. Reductions in scores indicate improvement. Data in parentheses represent changes in terms of total points between pretreatment and posttreatment, posttreatment and one-month follow-up, and pretreatment and one-month follow-up. -- = data were not returned.

Parenting Relationship

The parenting relationship was assessed by the PRQ. Results for the PRQ are presented in Table 9. Ratings of attachment improved for all participants from pretreatment to posttreatment assessments. Average pretreatment ratings were T=33.29 (SD=9.38) and increased to T=39.43 (SD=9.8) at posttreatment. One-month follow-up data indicated average ratings of T=37.33 (SD=16.56). Pretreatment Attachment ratings were in the clinically significant range for 5/7 (71%) participants and remained in the clinically significant range at posttreatment, with ratings for two participants approaching the clinical cut-off of T=40 (i.e., P3, T=39; Participant 6, T=39). Scores remained in the clinically significant range at one-month follow-up for all participants. Figure 5 displays a scatterplot of the pretreatment to posttreatment effects for the PRQ Attachment scores.

Table 9

Parenting Relationship Questionnaire (PRQ) Results

Scale	Participant	Pretreatment	Posttreatment	One-month follow-up	Pretreatment to one-month
Attachment	1	43	55 (1.2)	53 (-0.3)	(1.0)
	2	20	31 (1.1)	20 (-1.1)	(0)
	3	37	39 (0.2)	39 (0)	(0.2)
	4	28	33 (0.5)	--	--
	5	44	50 (0.6)	--	--
	6	37	39 (0.2)	--	--
	7	24	29 (0.5)	--	--
Communication	1	28	47 (1.9)	50 (0.3)	(2.2)
	2	10	27 (1.7)	13 (-1.4)	(0.3)
	6	39	50 (1.1)	--	--
	7	38	44 (0.6)	--	--
Discipline Practices	1	37	37 (0)	35 (-0.2)	(-0.2)
	2	32	35 (0.3)	35 (0)	(0.3)
	3	52	48 (-0.4)	58 (1.0)	(0.6)
	4	41	46 (0.5)	--	--
	5	54	54 (0)	--	--
	6	44	37 (-0.7)	--	--
	7	54	54 (0)	--	--
Involvement	1	48	59 (1.1)	66 (0.7)	(1.8)
	2	29	39 (1.0)	34 (-0.5)	(0.5)
	3	37	37 (0)	37 (0)	(0)
	4	37	51 (1.4)	--	--
	5	51	51 (0)	--	--
	6	42	53 (1.1)	--	--
	7	46	53 (0.7)	--	--
Parenting Confidence	1	46	52 (0.6)	57 (0.5)	(1.1)
	2	36	36 (0)	28 (-0.8)	(-0.8)
	3	39	36 (-0.3)	33 (-0.3)	(-0.6)
	4	39	36 (-0.3)	--	--
	5	39	46 (0.7)	--	--
	6	41	55 (1.4)	--	--
	7	31	39 (0.8)	--	--
Relational Frustration	1	45	45 (0)	36 (-0.9)	(-0.9)
	2	61	40 (-2.1)	43 (0.3)	(-1.8)
	3	73	63 (-1.0)	60 (-0.3)	(-1.3)
	4	57	57 (0)	--	--
	5	63	60 (-0.3)	--	--
	6	74	61 (-1.3)	--	--
	7	81	65 (-1.6)	--	--

Note. Data are presented in T scores. M=50, SD=10. Clinically significant scores for the Attachment, Communication, Discipline Practices, Involvement and Parenting Confidence scales are indicated by T=40 or lower, while clinically significant levels on the Relational Frustration scale are indicated by T=60 or higher. Data in parentheses represent changes in terms of SD units (or z-scores) between pretreatment and posttreatment, posttreatment and one-month follow-up, and pretreatment and one-month follow-up. -- = data were not returned.

Results above the line represent posttreatment gains, while results below the line represent losses. All posttreatment scores indicated gains on this measure.

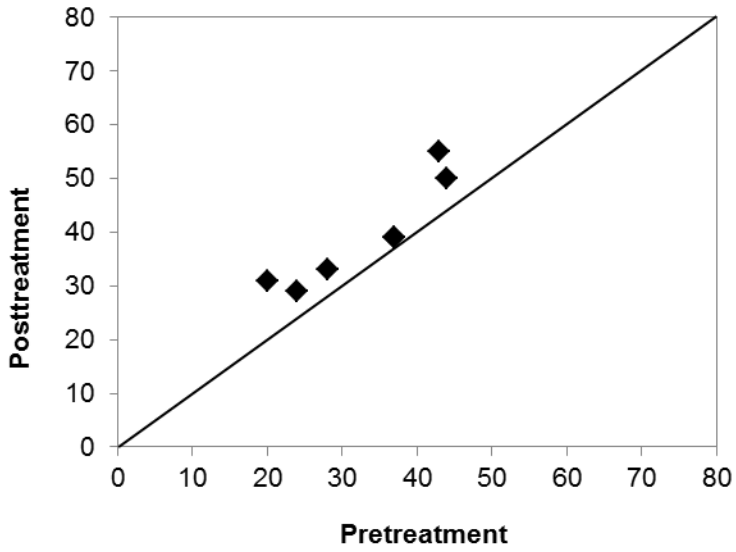

Figure 5. Scatterplot of Pretreatment to Posttreatment Effects for PRQ Attachment Scores

Ratings of communication were assessed for children ages 6 and older. Four parents completed this measure; all indicated improvements at posttreatment. Average pretreatment ratings were T=28.75 (SD=13.45); all were clinically significant. At posttreatment, ratings increased to an average of T=42 (SD=8.92), with 3/4 (75%) parents' scores improving to the normative range. Of two parents who completed one-month follow-up, 1/2 ratings were clinically significant. Average one-month scores were T=31.5 (SD=26.16). Figure 6 displays a scatterplot of the pretreatment to posttreatment effects for the PRQ Communication scores. Results above the line represent posttreatment gains, while results below the line represent losses. All posttreatment scores indicated gains on this measure.

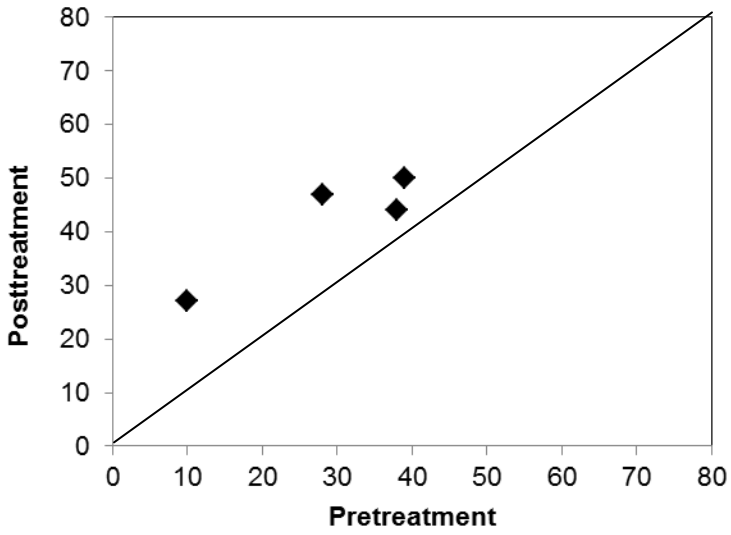

Figure 6. Scatterplot of Pretreatment to Posttreatment Effects for PRQ Communication Scores

Parent report of discipline practices remained stable. Approximately half of participants (3/7; 43%) reported no change, two parents reported reductions, and two parents indicated improvements on the PRQ Discipline Practices scale at posttreatment. At pretreatment, two parents (29%) reported clinically significant ratings on this scale. These scores remained in the clinically significant range at posttreatment. At pretreatment, average ratings were T=44.86 (SD=8.76). Posttreatment assessment indicated an average of T=44.43 (SD=8.14) and one-month follow-up ratings were T=42.67 (SD=13.28). Scores for 2/3 (67%) of participants remained clinically significant at one-month follow-up. Figure 7 displays a scatterplot of the pretreatment to posttreatment effects for the PRQ Discipline Practices scores. Results above the line represent posttreatment gains, while results below the line represent losses. In general, posttreatment scores remained stable on this measure.

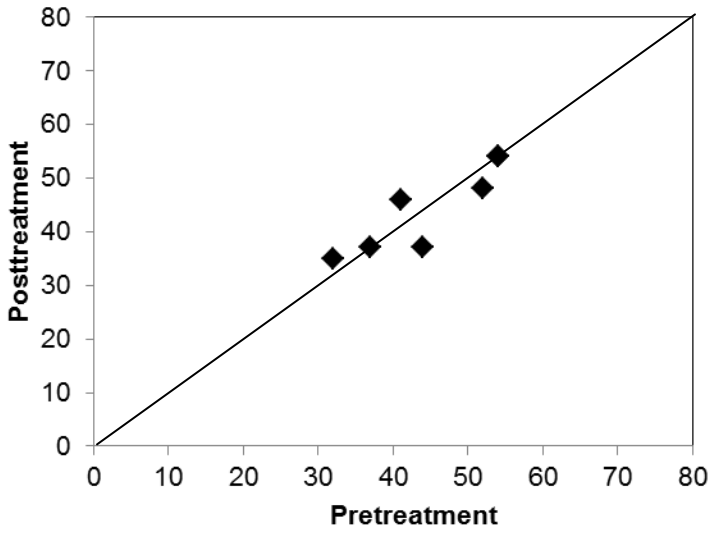

Figure 7. Scatterplot of Pretreatment to Posttreatment Effects for PRQ Discipline Practices Scores

Ratings of parental involvement increased for 5/7 (71%) participants at posttreatment. Three parents' pretreatment scores were in the clinically significant range, however, only one participant's (i.e., Participant 4) score improved to the normative range at posttreatment. One participant's score (i.e., Participant 2) was just below the clinical cut-off (T=39). Pretreatment ratings averaged T=41.43 (SD=7.63) and increased to an average of T=49 (SD=8) at posttreatment. Average ratings at one-month follow-up were T=45.67 (SD=17.67). Ratings for 2/3 (67%) of participants remained clinically significant at one-month follow-up. Figure 8 displays a scatterplot of the pretreatment to posttreatment effects for the PRQ Involvement scores. Results above the line represent posttreatment gains, while results below the line represent losses. The majority of posttreatment scores indicated gains on this measure.

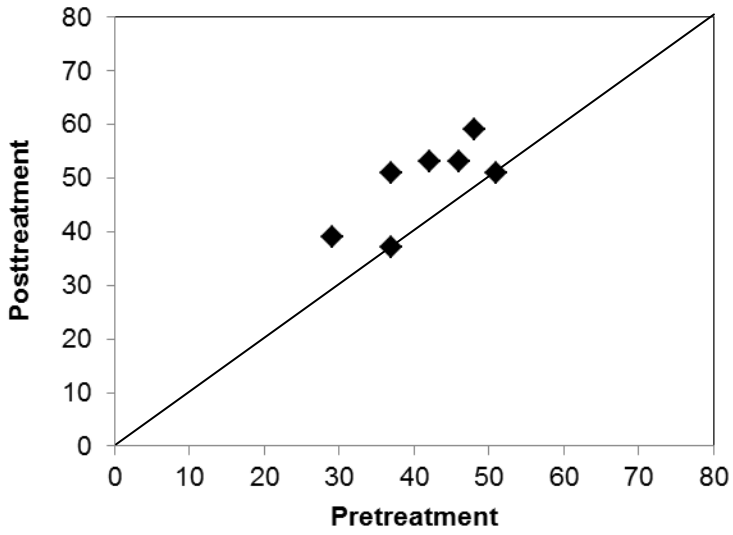

Figure 8. Scatterplot of Pretreatment to Posttreatment Effects for PRQ Involvement Scores

Approximately half (4/7; 57%) of participants reported slight increases in parenting confidence at posttreatment. Pretreatment assessment indicated clinically significant scores for 5/7 (71%) parents. One participant's (i.e., Participant 5) score improved from the clinically significant to normative range at posttreatment and one participant (i.e., Participant 7) scored just below the clinical cut-off (T=39). Overall, average ratings were T=38.71 (SD=4.57) and T=42.86 (SD=8.13) at pretreatment and posttreatment, respectively. One-month follow-up indicated clinically significant scores for 2/3 (67%) participants with an average rating of T=39.33 (SD=15.5). Figure 9 displays a scatterplot of the pretreatment to posttreatment effects for the PRQ Involvement scores. Results above the line represent posttreatment gains, while results below the line represent losses. The majority of posttreatment scores indicated gains on this measure.

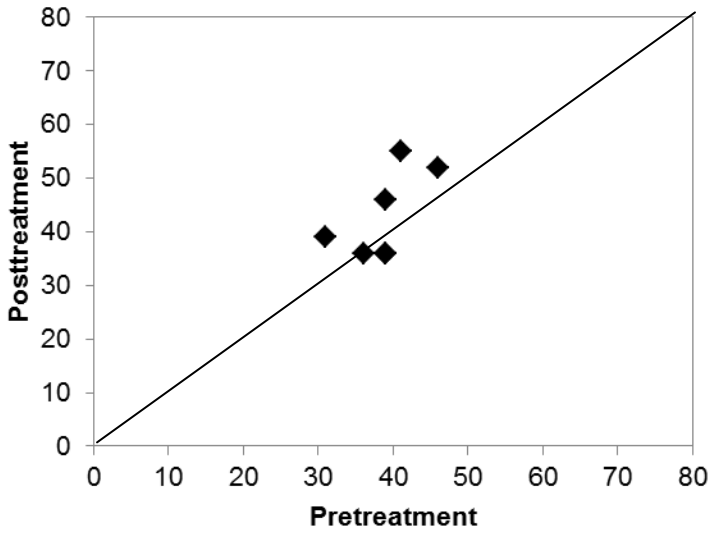

Figure 9. Scatterplot of Pretreatment to Posttreatment Effects for PRQ Parenting Confidence Scores

Most participants (5/7; 71%) noted a decrease in relational frustration with their child while two parents' reports remained unchanged. Pretreatment assessment indicated clinically significant ratings for 5/7 (71%) of parents. Though most ratings (4/7; 57%) remained in the clinically significant range at posttreatment, one participant's score (i.e., Participant 2) decreased to the normative range and two participants' ratings were at or just above the clinical cut-off (i.e., Participant 6, T=61; Participant 5, T=60). Average pretreatment ratings were T=64.86 (SD=12.14) which decreased to an average of T=55.86 (SD=7.15) at posttreatment. Average ratings of T=46.33 (SD=12.34) were observed at one-month follow-up with 1/3 (33%) of participants indicating a clinically significant score at the clinical cut-off (i.e., P3, T=60). Figure 10 displays a scatterplot of the pretreatment to posttreatment effects for the PRQ Relational Frustration scores. Results below the line represent posttreatment gains, while results above the line represent losses. The majority of posttreatment scores indicated gains on this measure.

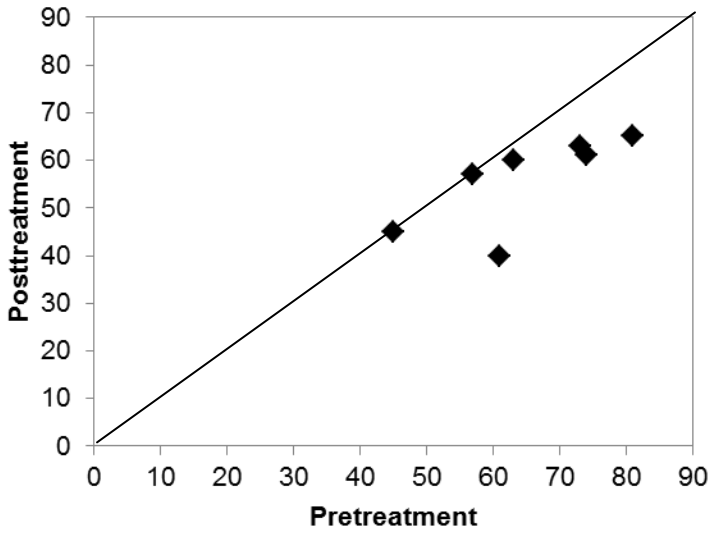

Figure 10. Scatterplot of Pretreatment to Posttreatment Effects for PRQ Relational Frustration Scores

Parenting Stress

Parenting stress was measured by the PSI/SF. Table 10 presents the results for the PSI/SF. Overall, ratings of total parenting stress improved for 6/7 (86%) parents and remained stable for one parent (i.e., P3) at posttreatment. At pretreatment, total parenting stress was in the clinically significant range for all participants and remained clinically significant for 3/7 (43%) participants at posttreatment. Average pretreatment total stress percentile ratings were 95.43, which decreased to an average rating of 80.71 at posttreatment. At one-month follow-up, total parenting stress was in the clinically significant range for 1/3 (33%) participants (mean percentile = 61.67).

Improvements were also noted on the PSI/SF scales. In general, ratings on the Parental Distress scale improved for 4/7 (57%) parents at posttreatment. Ratings at pretreatment indicated clinically significant levels for 3/7 (43%) participants (mean percentile = 70). Posttreatment assessment indicated clinically significant levels for 2/7

Table 10

Parenting Stress Index/Short Form (PSI/SF) Results

Scale	Participant	Pretreatment	Posttreatment	One-month follow-up	Pretreatment to one-month
Parental Distress	1	80	60 (-20)	50 (-10)	(-30)
	2	95	75 (-20)	55 (-20)	(-40)
	3	65	70 (5)	80 (10)	(15)
	4	90	85 (-5)	--	--
	5	90	95 (5)	--	--
	6	50	40 (-10)	--	--
	7	20	35 (15)	--	--
P-CDI	1	95	50 (-45)	65 (15)	(-30)
	2	95	85 (-10)	80 (-5)	(-15)
	3	85	90 (5)	80 (-10)	(-5)
	4	80	20 (-60)	--	--
	5	65	60 (-5)	--	--
	6	70	55 (-15)	--	--
	7	99+	99+ (0)	--	--
Difficult Child	1	90	35 (-55)	30 (-5)	(-60)
	2	95	40 (-55)	40 (0)	(-55)
	3	99+	99+ (0)	99+ (0)	(0)
	4	95	90 (-5)	--	--
	5	95	80 (-15)	--	--
	6	95	90 (-5)	--	--
	7	99+	99+ (0)	--	--
Total Stress	1	95	50 (-45)	50 (0)	(-45)
	2	99+	75 (-24)	65 (-10)	(-34)
	3	95	95 (0)	95 (0)	(0)
	4	95	80 (-15)	--	--
	5	95	90 (-5)	--	--
	6	90	80 (-10)	--	--
	7	99+	95 (-4)	--	--

Note. Data are presented in percentile scores. 85 or greater = clinically significant. Data in parentheses represent changes in percentile scores between pretreatment and posttreatment, posttreatment and one-month follow-up, and pretreatment and one-month follow-up. P-CDI=Parent-Child Dysfunctional Interaction; -- = data were not returned.

(29%) participants (mean percentile = 65.71). One-month follow-up indicated elevated ratings for 0/3 participants (mean percentile = 61.67).

Overall improvements were also noted on the Parent-Child Difficult interaction scale for 5/7 (71%) parents; however, one parent's report (i.e., P7) remained stable on this scale. Pretreatment ratings on the Parent-Child Difficult Interaction scale indicated clinically significant scores for 4/7 (57%) participants (mean percentile = 84.14). At

posttreatment, 3/7 (43%) participants scored at clinically significant levels on this scale. Average posttreatment percentile scores were 65.57, representing an overall decrease on this scale. At one-month follow-up, 0/3 participants provided scores in the clinically significant range on this scale (mean percentile = 75).

Five of seven participants reported general improvement on the Difficult Child scale at posttreatment, while reports for two parents remained unchanged. All participants reported clinically significant levels on the Difficult Child scale at pretreatment (mean percentile = 95.44). Percentile ratings decreased at posttreatment to 76.14 on average; 4/7 (57%) participants' scores fell in the clinically significant range at posttreatment. One participant (33%) reported clinically significant levels on this scale at one-month follow-up (mean percentile = 56.33).

Parent Report of Acceptance of Child

Parental acceptance of the child was measured by the PPAS. Results for the PPAS are presented in Table 11. Improvements in total PPAS scores were noted for 6/7 (86%) participants at posttreatment. Mean pretreatment score was 139.71 (SD=6.47). Average posttreatment score was 150.28 (SD=6.92). At one-month follow-up, increases were noted for all participants relative to pretreatment and posttreatment assessments (mean 156; SD=5.2). Posttreatment ratings on the Express Feelings scale increased for 6/7 (86%) participants and remained unchanged for one participant. Average pretreatment ratings were 32 (SD=4.3) which increased at posttreatment (mean 39.29; SD=3.04) and maintained at one-month follow-up (mean 38; SD=6.08). A similar pattern was noted for the Uniqueness scale with all participants noting an increase from pretreatment to

Table 11

Porter Parental Acceptance Scale (PPAS) Results

Scale	Participant	Pretreatment	Posttreatment	One-month follow-up	Pretreatment to one-month
Express Feelings	1	38	38 (0)	41 (3)	(3)
	2	25	40 (15)	31 (-9)	(6)
	3	32	42 (10)	42 (0)	(10)
	4	29	35 (6)	--	--
	5	33	36 (3)	--	--
	6	31	43 (12)	--	--
	7	36	41 (5)	--	--
Uniqueness	1	39	44 (5)	46 (2)	(7)
	2	31	32 (1)	30 (-2)	(-1)
	3	36	39 (3)	44 (5)	(8)
	4	31	35 (4)	--	--
	5	28	36 (8)	--	--
	6	31	39 (8)	--	--
	7	30	38 (8)	--	--
Autonomy	1	42	35 (-7)	32 (-3)	(-10)
	2	46	42 (-4)	42 (0)	(-4)
	3	38	41 (3)	42 (1)	(4)
	4	37	45 (8)	--	--
	5	44	44 (0)	--	--
	6	47	47 (0)	--	--
	7	40	43 (3)	--	--
Unconditional Love	1	28	34 (6)	34 (0)	(6)
	2	46	28 (-18)	50 (22)	(4)
	3	26	24 (-2)	34 (10)	(8)
	4	40	30 (-10)	--	--
	5	36	36 (0)	--	--
	6	32	34 (2)	--	--
	7	26	31 (5)	--	--

Note. Data are presented in scale scores ranging from 10 to 50, with no reported clinical cut-off scores. Increases in scores indicate improvement. Data in parentheses represent changes in total points between pretreatment and posttreatment, posttreatment and one-month follow-up, and pretreatment and one-month follow-up. -- = data were not returned.

posttreatment assessments. Pretreatment ratings averaged 32.29 (SD=3.82); posttreatment ratings averaged 37.57 (SD=3.78), and one-month ratings averaged 40 (SD=8.72). Approximately half (3/7; 43%) of participants reported an increase on the Autonomy scale. Two parents' reports remained unchanged, and the remaining two decreased. Average pretreatment score was 42 (SD=3.87); average posttreatment remained stable at 42.43 (SD=3.82). At one-month follow-up ratings averaged 38.67

(SD=5.77). Parent ratings on the Unconditional Love scale increased for 3/7 (43%) participants at posttreatment. Reports of Unconditional Love remained unchanged for one parent and decreased for the remaining three parents. At pretreatment, mean ratings were 33.43 (SD=7.63). Mean posttreatment ratings were 31 (SD=4.12). Mean one-month follow-up ratings were 39.33 (SD=9.24).

Direct Observation Measures

Parental Empathy was measured by the MEACI. Table 12 displays the pretreatment and posttreatment results for this measure. Consistent improvements from pretreatment to posttreatment assessments were noted for all participants on all scales of the MEACI with the exception of the Self-Direction scale for Participant 7 (which worsened) and Participant 6 (which remained stable). Average pretreatment total score was 51 (SD=4.58) which decreased (i.e., improved) to 35.36 (SD=5.11) at posttreatment. Similar improvements were noted for the MEACI scales. At pretreatment, average ratings for the Acceptance, Self-Direction, and Involvement scales were 18.71 (SD=1.11), 20.29 (SD=4.07), and 12 (SD=0), respectively. Average performance decreased (i.e., improved) across scales to 15.21 (SD=1.84), 13.57 (SD=3.82), and 6.57 (SD=1.13).

DPICS ratings assessed parent demonstration of positive behaviors (i.e., behavior descriptions and reflections), negative talk, praise, commands, child negative behaviors (i.e., whine, yell, and negative talk) and child compliance. Table 13 displays the pretreatment and posttreatment results for the DPICS. Improvements were noted in parent positive behaviors (i.e., behavior descriptions and reflections) for all participants

Table 12

Measurement of Empathy in Adult-Child Interaction (MEACI) Results

Scale	Participant	Pretreatment	Posttreatment
Acceptance	1	17	13 (-4)
	2	20.5	16 (-4.5)
	3	19	14.5 (-4.5)
	4	18	15.5 (-2.5)
	5	18.5	13 (-5.5)
	6	18.5	16.5 (-2)
	7	19.5	18 (-1.5)
Self Direction	1	20	9 (-11)
	2	25	15 (-10)
	3	25	9 (-16)
	4	19	13 (-6)
	5	22	15 (-7)
	6	14	14 (0)
	7	17	20 (3)
Involvement	1	12	7 (-5)
	2	12	6 (-6)
	3	12	6 (-6)
	4	12	6 (-6)
	5	12	9 (-3)
	6	12	6 (-6)
	7	12	6 (-6)
Total Score	1	49	29 (-20)
	2	57.5	37 (-20.5)
	3	56	29.5 (-26.5)
	4	49	34.5 (-14.5)
	5	52.5	37 (-15.5)
	6	44.5	36.5 (-8)
	7	48.5	44 (-4.5)

Note. Data are presented in scale scores ranging from 6 to 30 and total scores ranging from total scores ranging from 18 to 90, with no reported clinical cut-off scores. Reductions in scores indicate improvement. Data in parentheses represent changes in total points between pretreatment and posttreatment. -- = data were not returned.

with the exception of Participants 1 and 7 whose performance remained stable at posttreatment. Average pretreatment occurrence of parent positive behavior per 5-minute observation was 1.71. Parent positive behaviors increased to an average of 7.57 per 5-minute observation at posttreatment.

Reductions were noted in negative talk. At pretreatment, 4/7 (57%) parents were observed to engage in negative talk; only two parents (29%) engaged in negative talk at

Table 13

Dyadic Parent-Child Interaction Coding System (DPICS) Results

Category	Participant	Pretreatment	Posttreatment
Parent Positive Behaviors	1	3	3 (0)
	2	0	7 (7)
	3	0	8 (8)
	4	2	19 (17)
	5	2	5 (3)
	6	3	9 (6)
	7	2	2 (0)
Negative Talk	1	0	0 (0)
	2	1	0 (-1)
	3	1	0 (-1)
	4	2	0 (-2)
	5	1	0 (-1)
	6	0	1 (1)
	7	0	2 (2)
Labeled Praise	1	1	0 (-1)
	2	0	1 (1)
	3	1	0 (-1)
	4	2	0 (-2)
	5	0	0 (0)
	6	2	1 (-1)
	7	1	0 (-1)
Direct Command	1	2	0 (-2)
	2	0	0 (0)
	3	4	0 (-4)
	4	7	1 (-6)
	5	2	0 (-2)
	6	0	0 (0)
	7	11	0 (-11)
Child Negative Behavior	1	0	0 (0)
	2	0	0 (0)
	3	2	0 (-2)
	4	0	3 (3)
	5	0	0 (0)
	6	0	0 (0)
	7	0	0 (0)
Compliance	1	2/2 (100%)	n/a
	2	n/a	n/a
	3	3/4 (75%)	n/a
	4	7/7 (100%)	0/1 (0%)
	5	2/2 (100%)	n/a
	6	n/a	n/a
	7	8/11 (73%)	n/a

Note. Data are presented in frequency counts per 5-minute observation. Data in parentheses indicate change from pretreatment to posttreatment. n/a = not applicable; Parent positive behavior = behavior descriptions and reflections; child negative behavior = negative talk, yelling and whining.

posttreatment. Pretreatment average occurrence was 0.71 which decreased to 0.43 at posttreatment. Five of seven (71%) parents praised their children's behavior during pretreatment, which decreased to 2/7 (29%) at posttreatment. The rate of praise decreased at posttreatment from an average of one occurrence to an average of 0.29.

Rate of commands decreased at posttreatment. Five of seven (71%) parents provided commands to their children during pretreatment play sessions. Only one parent (14%) was observed to give a command to their child at posttreatment. Parents provided an average of 3.71 commands at pretreatment which decreased to an average of 0.14 at posttreatment.

Regarding child behavior, average negative behaviors were observed to increase slightly at posttreatment. Initial average occurrence of child negative behavior was 0.29; posttreatment average was 0.43. Only one child was observed to engage in negative behaviors during pretreatment and posttreatment assessments. During pretreatment this was the child of Participant 3 and in posttreatment it was the child of Participant 4. Finally, child compliance at pretreatment averaged 85% (i.e., of 26 commands given, children were observed to comply with 22). At posttreatment, only one command was observed; the child was not compliant with this command.

Individual Level Results

Participant 1 (P1)

Figure 11 displays session-by-session ECBI scores for P1. With implementation of treatment, a steady decreasing trend to the normative range was observed across sessions, including normative ratings at posttreatment and one-month follow-up.

Reductions were noted in parent report measures of child disruptive behavior. ECBI scores were clinically significant (T=61) at pretreatment and within the normative range at posttreatment (T=45) and follow-up (T=59). CBCL Internalizing and Total Problem scores were clinically significant at pretreatment, with Externalizing scores just below the clinical cut-off (T=59). All scales were within normal limits at posttreatment and one-month follow-up. FPC ratings indicated a reduction of 52 points at one-month follow-up relative to pretreatment.

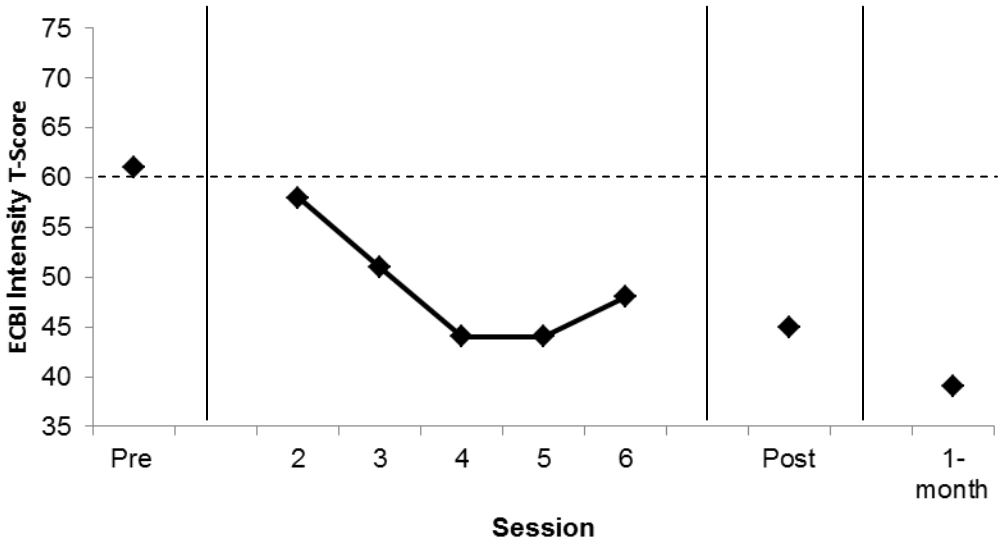

Figure 11. Session-by-Session ECBI Intensity T-scores for Participant 1

Figure 12 displays MEACI scores for P1. With implementation of treatment there was an immediate reduction (i.e., improvement) in performance on the Self-Direction scale and slight improvement on the Acceptance scale. Performance on the Involvement scale remained stable. Across play sessions, slow decreasing trends (i.e., improvements) were observed on the Acceptance and Involvement scales while performance remained

stable on the Self-Direction scale. DPICS scores for P1 are displayed in Figure 13. A slight increase in parent positive behaviors was observed during the first play session compared to pretreatment assessment, with variable responding and a general decreasing trend observed across subsequent play sessions and posttreatment. Zero levels of

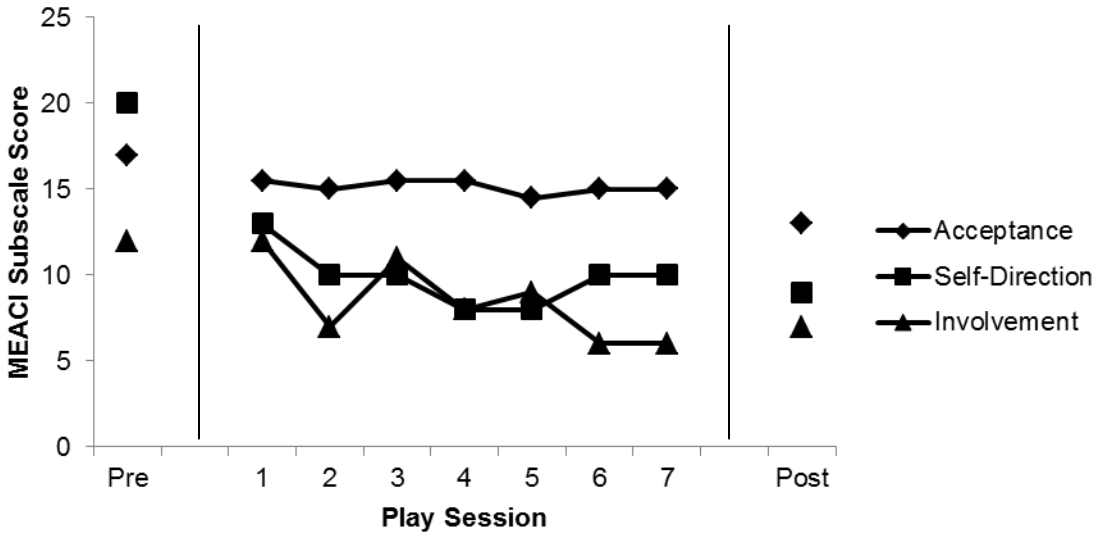

Figure 12. Session-by-Session MEACI Scores for Participant 1

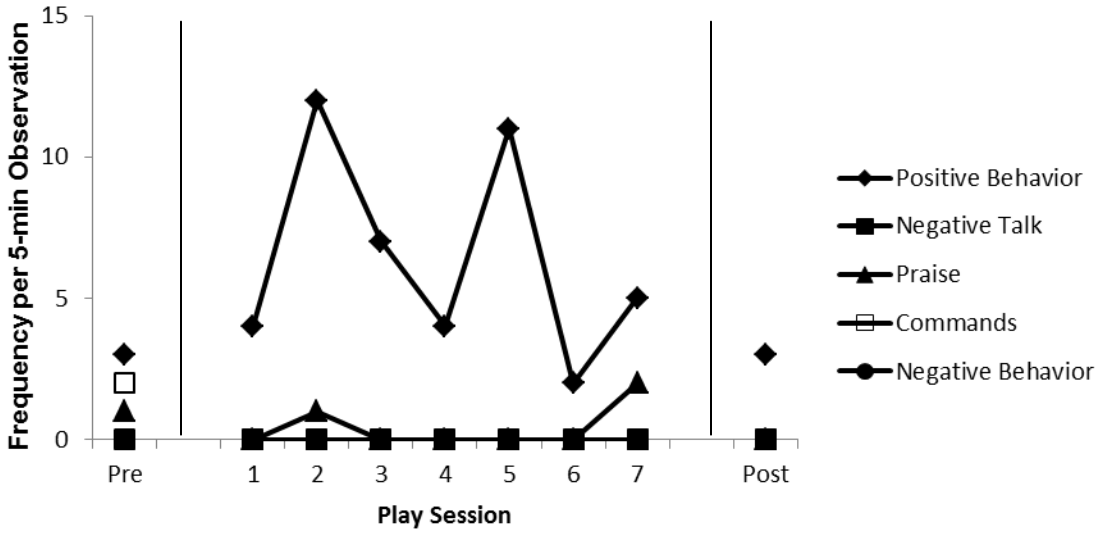

Figure 13. Session-by-Session DPICS Scores for Participant 1

negative talk was observed across all assessments. Other than two commands during pretreatment, zero levels of commands were observed. The child was compliant to both commands presented during pretreatment. Frequency of praise remained low across play sessions. No instances of child negative behaviors were observed.

Parenting stress was clinically significant at pretreatment for the Parent-Child Difficult Interaction, Difficult Child, and Total Stress scales. All scale scores were in the normative range at posttreatment and one-month follow-up. An increase in PPAS scale scores was observed on the Uniqueness and Unconditional Love scales while ratings on the Autonomy scale and the Express Feelings scale remained stable. The most improved score was on the Uniqueness scale (5 points). Regarding parenting relationship, the Attachment, Involvement, Parenting Confidence and Relational Frustration scales remained in the normative range while the Discipline Practices scale remained stable and clinically significant. Improvements in Attachment and Involvement were indicated. Communication improved from the clinically significant to normative range.

Participant 2 (P2)

Figure 14 displays ECBI scores for P2. A slight decreasing trend was noted during baseline beginning in the clinically significant range and decreasing to normative range prior to treatment. With implementation of treatment, a continued decreasing trend was observed which continued to posttreatment and one-month follow-up assessments.

Consistent reductions in parent report of child disruptive behavior at posttreatment were noted across measures for P2. Pretreatment ECBI scores were in the clinically significant range (T=63), decreased to normative range at posttreatment (T=49)

and remained stable at one-month follow-up (T=47). The CBCL Externalizing score was clinically significant at pretreatment (T=63). Posttreatment and one-month follow-up assessments indicated scores within normal limits (T=33 and T=44, respectively). All other CBCL scales were in the normative range. A reduction of 39 points was noted on the FPC at posttreatment and a total of 55 points at one-month follow-up.

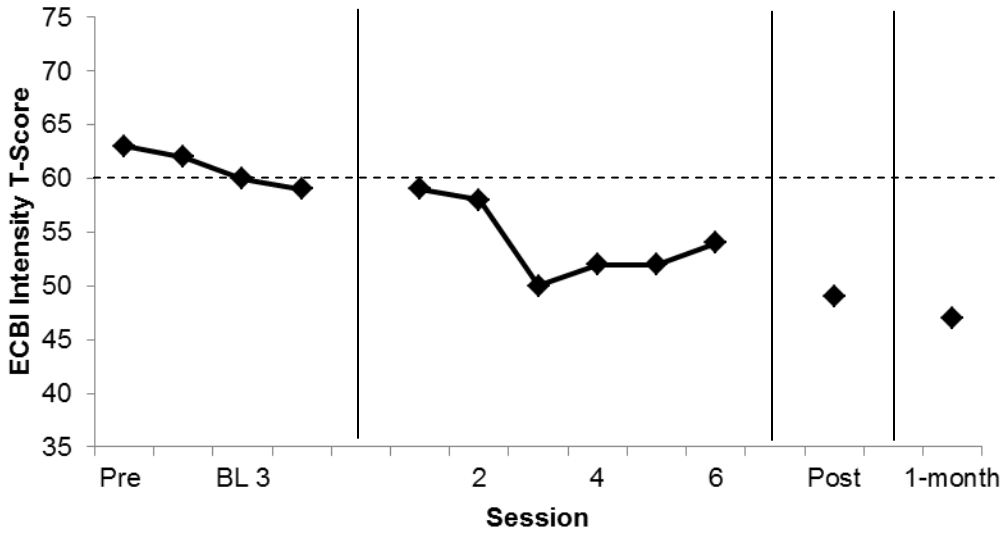

Figure 14. Session-by-Session ECBI Intensity T-scores for Participant 2

Figure 15 displays MEACI scores for P2. Play session 2 was abbreviated and the MEACI was not scored. With implementation of treatment an immediate reduction (i.e., improvement) across all scales was noted. Performance remained stable across all play sessions and during posttreatment. Figure 16 displays DPICS scores for P2. An immediate increase in parent positive behaviors was observed during treatment play sessions compared to pretreatment assessment. Demonstration of parent positive behaviors indicated a slight decrease between sessions 1 through 4. An increase was

noted in session 5 followed by a decreasing trend through play session 7. Parent positive behaviors then increased in level during posttreatment assessment. A low rate of commands and praise was noted across pretreatment, treatment, and posttreatment. Negative talk was at zero rates across treatment and posttreatment. Relative to compliance, four demands were observed during play session 2. The child was compliant with 50% of directives. One command was observed in play session 7 to which the child complied. One instance of child negative behavior was observed during play session 2.

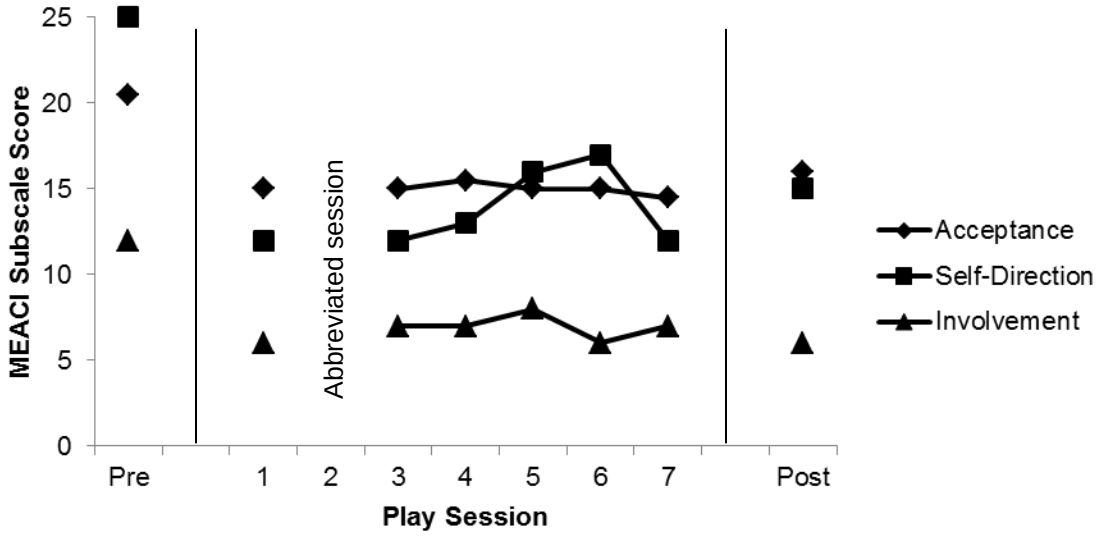

Figure 15. Session-by-Session MEACI Scores for Participant 2

At pretreatment, all scales of the PSI/SF were clinically significant. At posttreatment, only the Parent-Child Difficult Interaction scale remained elevated and all scales were in the normative range at one-month follow-up. Relative to acceptance, at posttreatment the most notable PPAS improvement was noted on the Express Feelings scale (15 points), however a decrease on this scale was indicated at one-month follow-up. Ratings on the Uniqueness scale remained stable across assessments. A slight decrease

was noted on the Autonomy scale at posttreatment which remained stable at one-month follow-up. A decrease was noted on the Unconditional Love scale at posttreatment, which then increased at one-month follow-up.

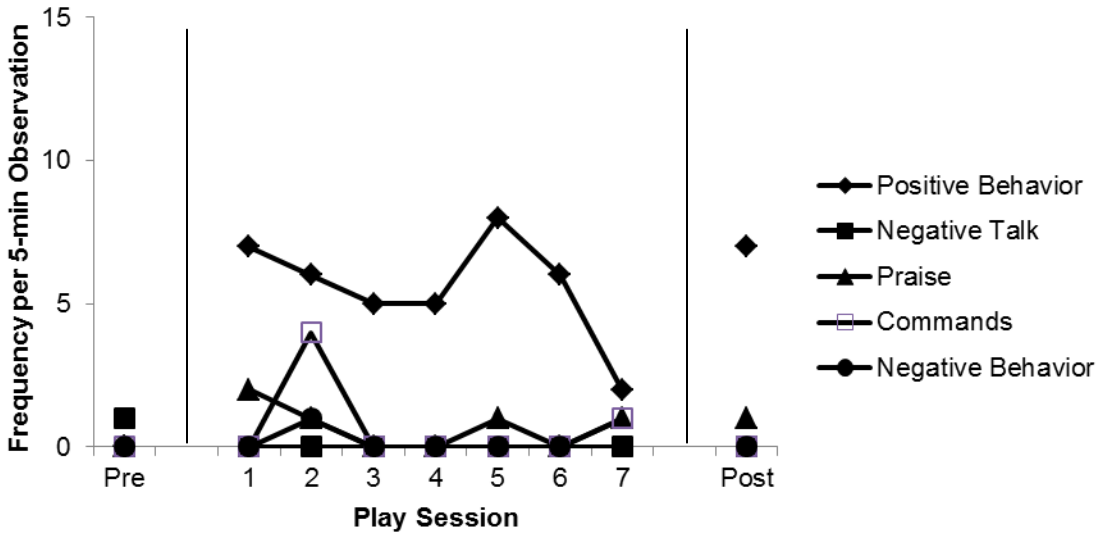

Figure 16. Session-by-Session DPICS Scores for Participant 2

Regarding parenting relationship, improvements were noted on Attachment, Communication, Discipline Practices, and Relational Frustration scales. Relational Frustration improved from the clinically significant range to the normative range at posttreatment and one-month follow-up. Ratings of attachment, communication, and involvement increased at posttreatment and decreased at one-month follow-up. Discipline practices remained stable. Parenting confidence remained stable at posttreatment, then decreased at one-month follow-up.

Participant 3 (P3)

Figure 17 displays ECBI scores for P3. Stable baseline performance in the clinically significant range was noted. A steady decreasing trend was observed beginning

with session 2 which reached a sub-clinical level in session 6. Posttreatment assessment indicated a return to clinically significant range, followed by a return to the normative range at one-month follow-up. Pretreatment and posttreatment ratings of child disruptive

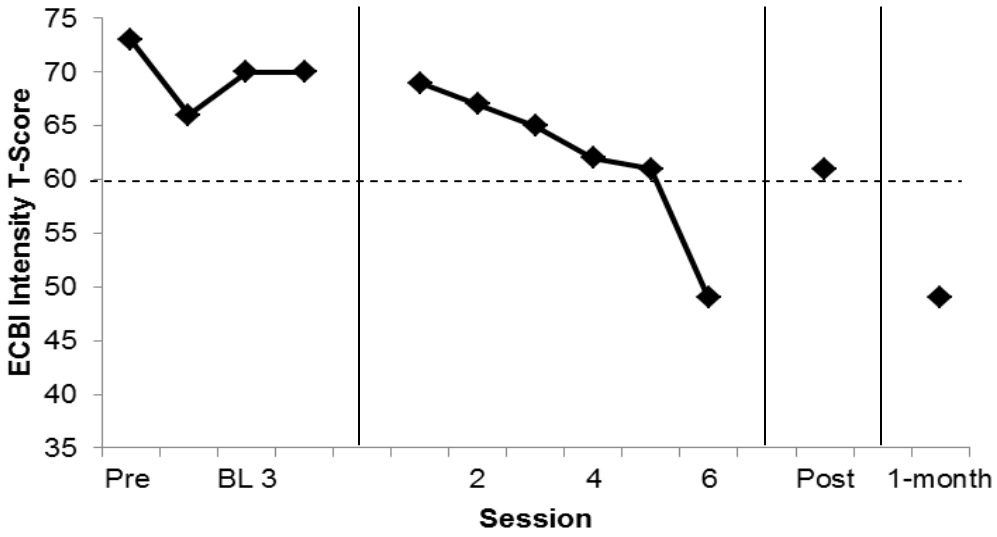

Figure 17. Session-by-Session ECBI Intensity T-scores for Participant 3

behavior consistently decreased across measures. ECBI scores were clinically significant (T=73) at pretreatment, just above the clinical cut-off (T=61) at posttreatment and in the normal range (T=49) at one-month follow-up. CBCL Internalizing (T=68), Externalizing (T=73), and Total Problem (T=70) scores were in the clinically significant range at pretreatment. The Externalizing scale decreased to the normative range at posttreatment (T=58) and one-month follow-up (T=55). Internalizing and Total Problem scales remained in the clinically significant range across assessments but indicated a decreasing trend toward the normative range. Consistent reductions were noted on the FPC (20 point reduction between pretreatment and one-month follow-up).

Figure 18 displays MEACI scores for P3. With implementation of treatment an immediate reduction (i.e., improvement) in all scales was noted. Performance on the Acceptance and Involvement scales remained stable across all play sessions including posttreatment assessment. A slight increasing trend (i.e., worsening) was noted for the

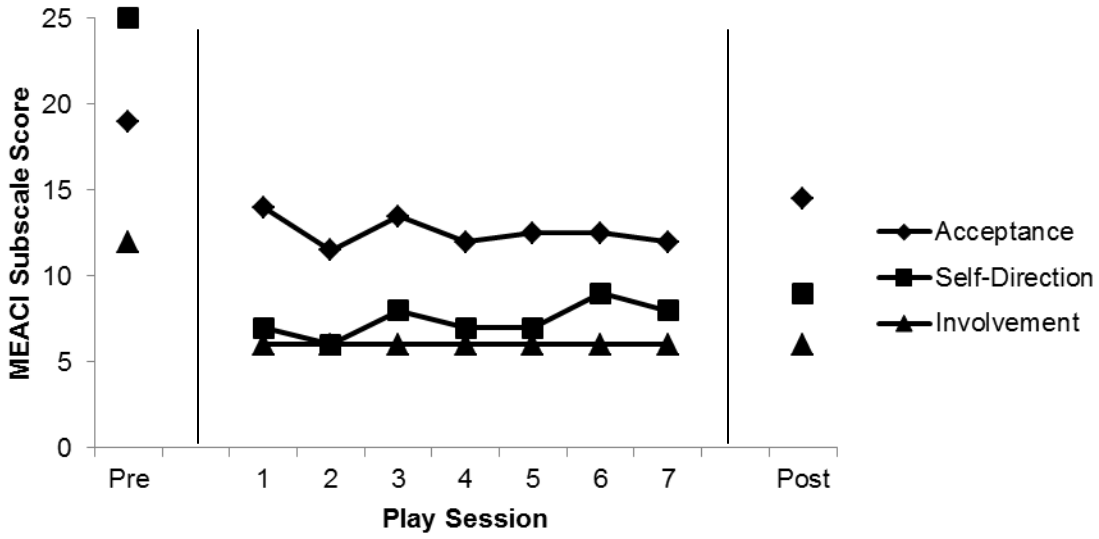

Figure 18. Session-by-Session MEACI Scores for Participant 3

Self-Direction scale. DPICS scores for P3 are displayed in Figure 19. An immediate increase in parent positive behaviors was observed during treatment play sessions compared to pretreatment assessment, though a steady decreasing trend was observed across treatment play sessions. A slight increase was noted during posttreatment assessment, though still significantly lower than initial treatment levels. Near zero rates of praise and zero rates of negative talk and commands were observed across treatment and posttreatment assessments. During pretreatment, four commands were observed, to which the child complied in 75% of opportunities. Two instances of child negative

behavior were observed at pretreatment followed by zero levels in all remaining observations.

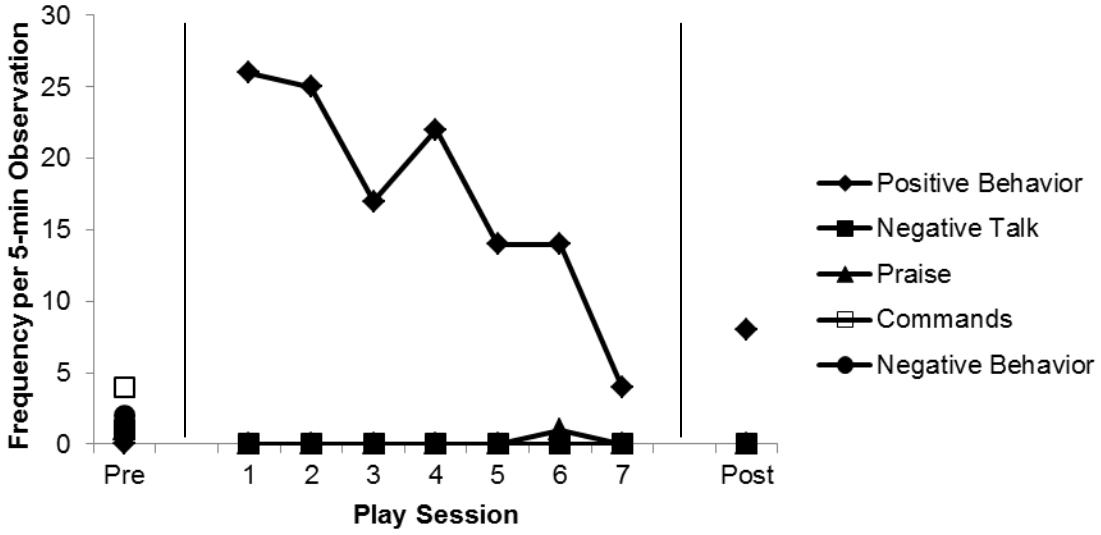

Figure 19. Session-by-Session DPICS Scores for Participant 3

All scale scores of the PSI/SF were in the clinically significant range across assessments, with the exception of Parental Distress scale which remained within normal limits across assessments. A reduction to the normative range on the Parent-Child Difficult Interaction scale was noted at one-month follow-up. Ratings on the PPAS indicated improvement on all scales from pretreatment to follow-up with the exception of the Unconditional Love scale which decreased slightly. The most dramatic change was observed on the Express Feelings scale (10 point increase at posttreatment). The PRQ indicated little change across assessments. Attachment, Involvement, and Parenting Confidence scales remained in the clinically significant range while Discipline Practices remained in the normative range across pretreatment, posttreatment and one-month follow-up. Parenting Confidence decreased across assessments. Though ratings on the Relational Frustration scale remained in the clinically significant range, a reduction was

noted across assessments which was just at the cut-off for clinical significance at one-month follow-up (T=60).

Participant 4 (P4)

Figure 20 displays ECBI scores for P4. ECBI ratings indicated stable performance in the clinically significant range during baseline and treatment conditions. A decrease was noted in session 6, which extended to posttreatment, representing normative range performance. Reductions were noted for all parent report ratings of child disruptive behavior at posttreatment. P4 ECBI T-scores were in the clinically significant range at pretreatment (T=67) and decreased to the normative range at posttreatment (T=59). All CBCL scores were in the clinically significant range at pretreatment. Reductions were noted across all scales at posttreatment, though only the Externalizing scale was within normal limits (T=58). Parent report on the FPC also indicated a reduction in report of child problem behavior (29 points) at posttreatment.

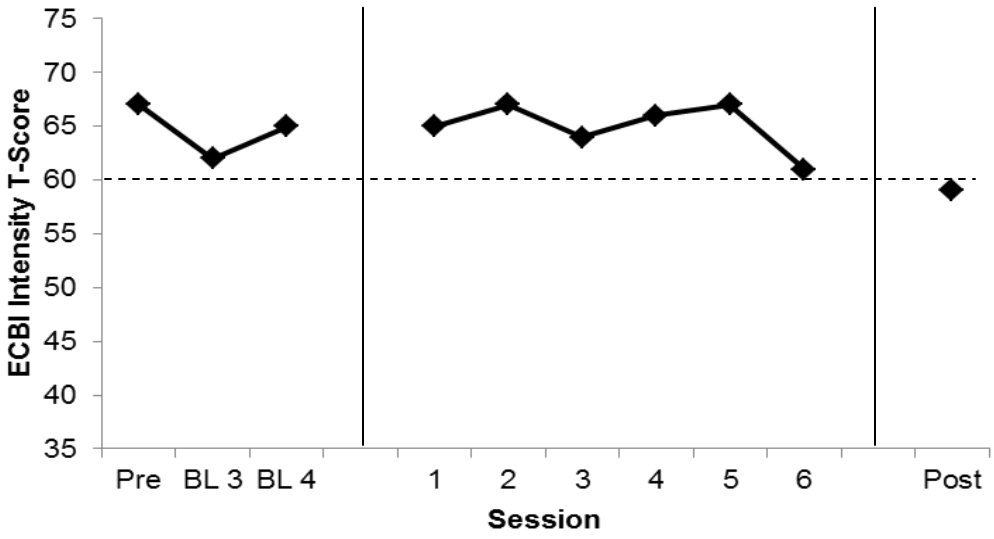

Figure 20. Session-by-Session ECBI Intensity T-scores for Participant 4

Figure 21 displays MEACI scores for P4. With implementation of treatment, an immediate reduction (i.e., improvement) in all scales was noted. Stable performance was observed on the Acceptance and Involvement scales, while a slight increasing trend (i.e., worsening) was noted across play sessions on the Self-Direction scale. DPICS scores for

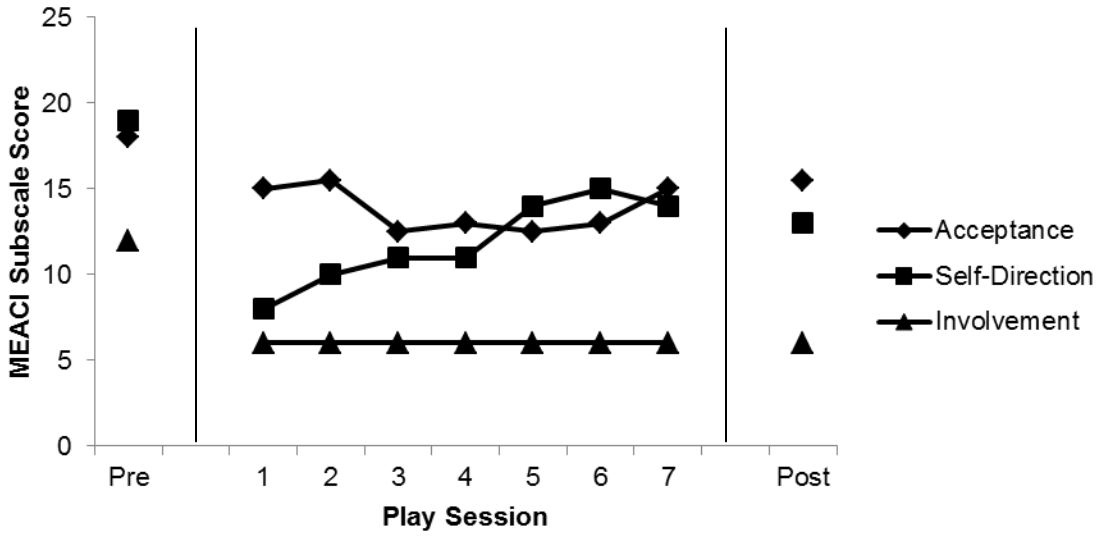

Figure 21. Session-by-Session MEACI Scores for Participant 4

P4 are displayed in Figure 22. An immediate increase in parent positive behaviors was observed during treatment play sessions compared to pretreatment assessment. A decreasing trend was observed across play sessions 5 and 6, followed by an increase in performance during plays session 7 and posttreatment. Zero rates of negative talk was observed across all observations. A variable, but low rate of praise and commands was noted across all assessments. The child was compliant with all commands (total of 19 given across assessments), with the exception of one of two commands delivered during play session 7 and the one command observed during posttreatment. Two instances of

child negative behavior were observed in session 4 and three instances occurred at posttreatment.

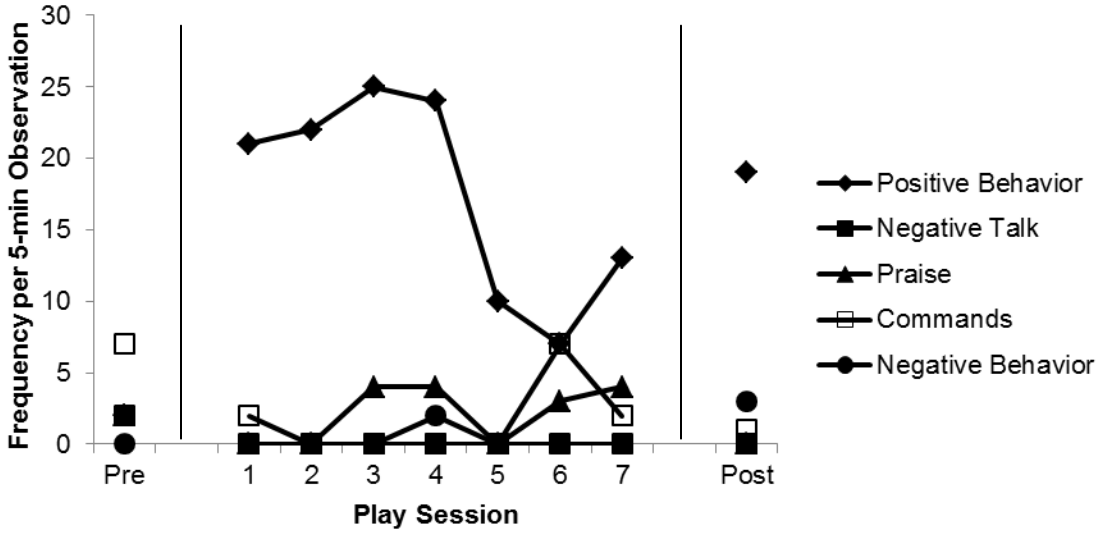

Figure 22. Session-by-Session DPICS Scores for Participant 4

Consistent reductions were noted in parenting stress at posttreatment assessment with a notable decrease in the Parent-Child Difficult Interaction scale noted (i.e., 80 at pretreatment to 20 at posttreatment). At pretreatment, the Parental Distress, Difficult Child and Total Stress scores were clinically significant. Posttreatment data indicated normative range total parenting stress. Ratings on the PPAS increased overall, with the exception of the Unconditional Love scale, which decreased. The most dramatic increase was observed on the Autonomy scale (8 point increase).

PRQ scales remained in the clinically significant range for the Attachment, Parenting Confidence, and Relational Frustration scales while the Discipline Practices scale remained within normal limits across assessments. A change was noted on the Involvement scale from the clinically significant to normative range at posttreatment.

Participant 5 (P5)

Figure 23 displays ECBI scores for P5. Baseline data suggested a decreasing trend, though all ratings remained in the clinically significant range. Treatment data indicated a continued slow decreasing trend to within the normative range, with stable performance noted from sessions 4 to posttreatment. Reductions were noted for all parent report measures of child disruptive behavior. The ECBI pretreatment score was initially in the clinically significant range (T=67) and within normal limits (T=58) at posttreatment. Consistent reductions were also noted for all CBCL scales. The Externalizing scale was clinically significant at pretreatment; all scales were in the normative range at posttreatment. A 21 point decrease was noted on the FPC.

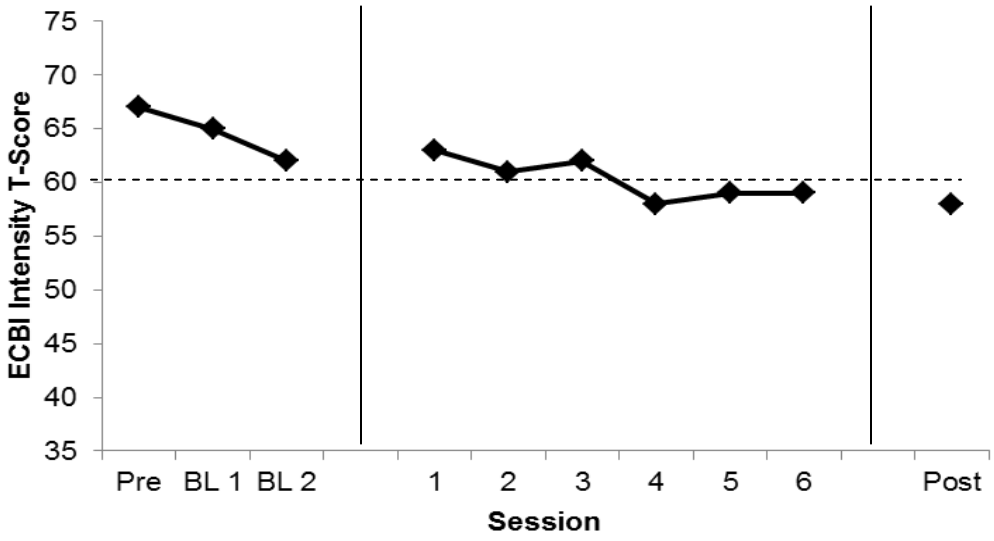

Figure 23. Session-by-Session ECBI Intensity T-scores for Participant 5

Figure 24 displays MEACI scores for P5. With implementation of treatment, there was an immediate reduction (i.e., improvement) in performance on the Acceptance

and Self-Direction scales, while performance on the Involvement scale remained stable. Across play sessions, stable performance was observed on the Acceptance scale, while an increasing trend (i.e., worsening) was noted on the Self-Direction scale. A slight decreasing trend (i.e., improvement) was observed on the Involvement scale. DPICS

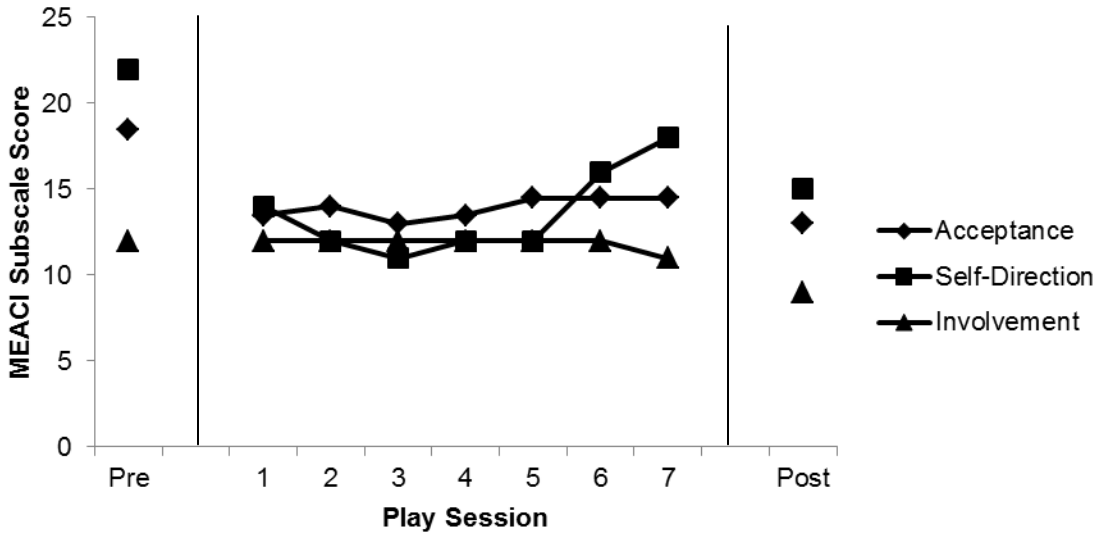

Figure 24. Session-by-Session MEACI Scores for Participant 5

scores for P5 are displayed in Figure 25. An immediate increase in parent positive behaviors was observed during initial play sessions compared to pretreatment assessment with notable decreasing trend indicated across play sessions 4 through 7. A comparable low rate of parent positive behaviors was observed during posttreatment. Zero rates of praise were observed across all assessments. Though initially occurring at a low rate, P5 reduced commands and negative talk across play sessions and during posttreatment. The child was compliant to 100% of commands provided. Child negative behaviors were at zero levels.

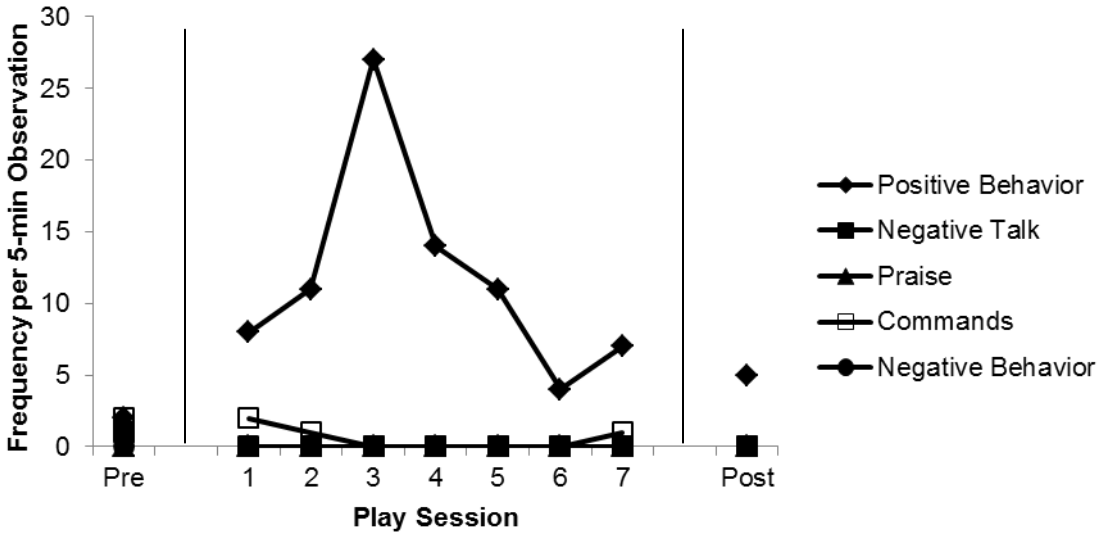

Figure 25. Session-by-Session DPICS Scores for Participant 5

Regarding parenting stress, at pretreatment the Parental Distress, Difficult Child and Total Stress scale scores were clinically significant; posttreatment assessment indicated that the Difficult Child scale was within normal limits. Increases were noted on the PPAS Express Feelings and Uniqueness scales, with the most notable increase observed on the Uniqueness scale (8 points). Ratings on the remaining two PPAS scales remained unchanged. Regarding parenting relationship, the Attachment, Discipline Practices, and Involvement scales remained in the normative range across assessments. Improvement was noted on the Attachment scale. Relational Frustration remained clinically significant but had decreased slightly and was at the cut-off point for clinical significance at posttreatment. Parenting Confidence improved from the clinically significant to the normative range.

Participant 6 (P6)

Figure 26 displays ECBI scores for P6. Performance during baseline suggested a decreasing trend, though stability in the clinically significant range was observed in baseline 2, 3 and session 1 ratings. Normative range performance was noted beginning with session 2. A slow and steady decreasing trend was observed following session 2 and remained stable during posttreatment. Consistent reductions in parent report of child disruptive behavior were noted at posttreatment. Initial ECBI scores were in the clinically significant range (T=65) and reduced to within normal limits (T=53) at posttreatment. All CBCL scores decreased across assessments. At pretreatment, only the Externalizing scale score was in the clinically significant range (T=61) and was within normal limits (T=58) at posttreatment. A reduction of 30 points was noted on the FPC between pretreatment and posttreatment assessments.

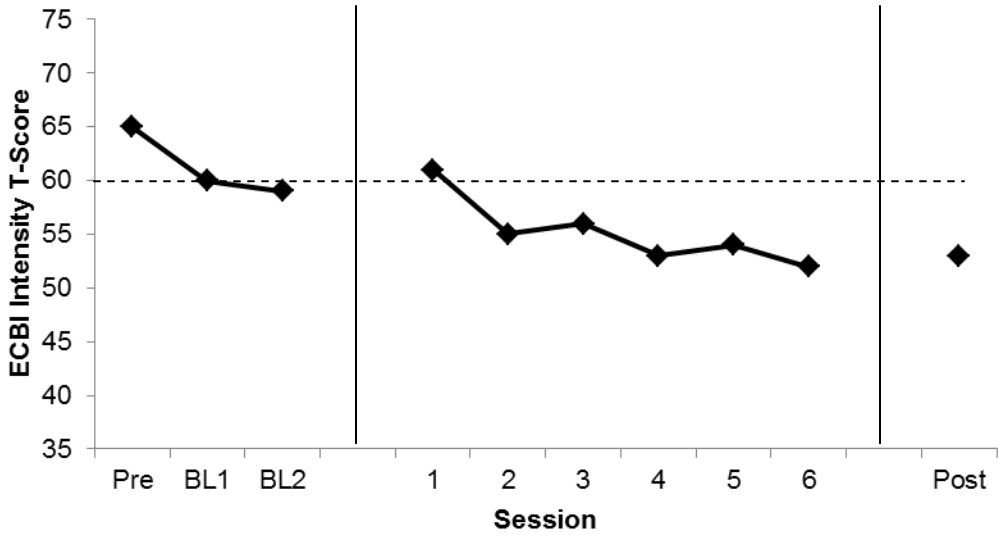

Figure 26. Session-by-Session ECBI Intensity T-scores for Participant 6

Figure 27 displays MEACI scores for P6. With implementation of treatment there was a reduction (i.e., improvement) in performance on the Acceptance and Involvement scales, while performance on the Self-Direction scale remained stable. Stable performance was observed on the Involvement and Self-Direction scales, while a slight increasing trend (i.e., worsening) was noted across play sessions on the Acceptance scale.

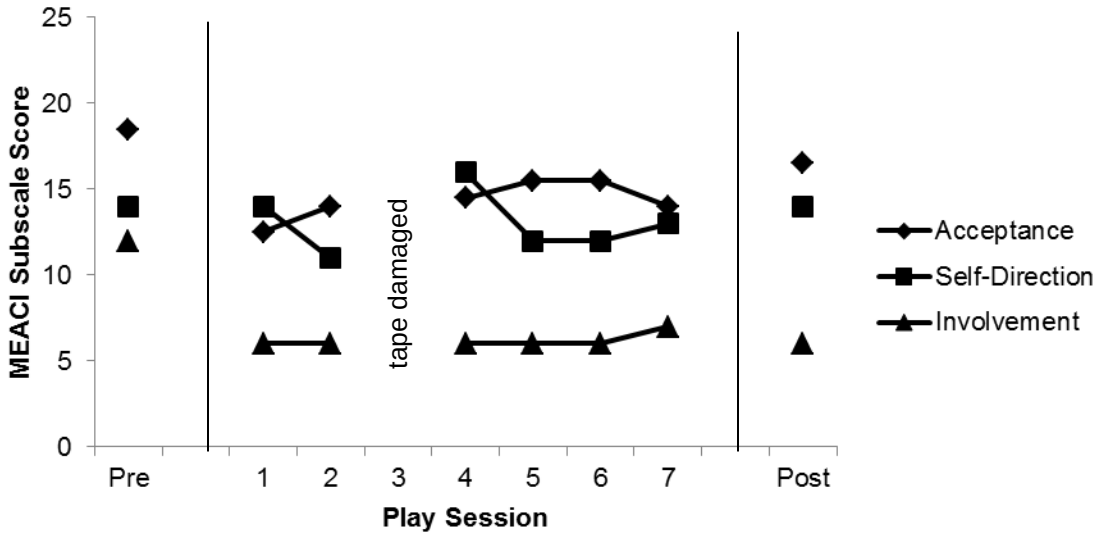

Figure 27. Session-by-Session MEACI Scores for Participant 6

DPICS scores for P6 are displayed in Figure 28. Due to problems with video equipment, play session 3 was not able to be coded. An immediate increase in parent positive behaviors was observed during treatment play sessions compared to pretreatment assessment, with a notable decreasing trend indicated in play sessions 4 through 7. A comparable low rate of parent positive behaviors was also observed at posttreatment. P6 maintained near zero levels of negative talk and praise across play sessions and posttreatment assessment. No commands were presented and no instances of child negative behaviors were observed.

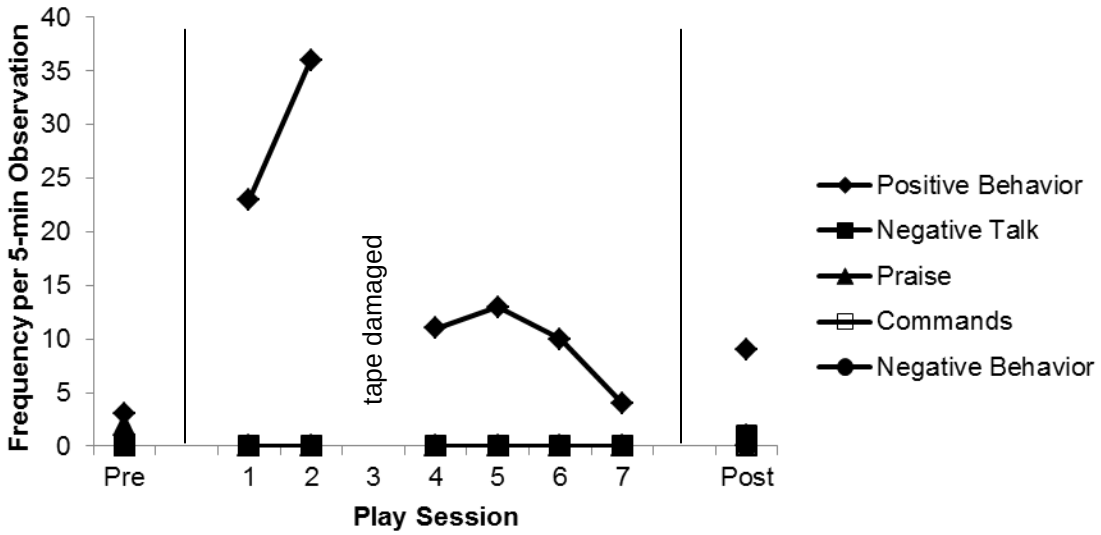

Figure 28. Session-by-Session DPICS Scores for Participant 6

Reductions in parenting stress were noted on all scales of the PSI/SF. At pretreatment, the Difficult Child and Total Stress scores were clinically significant. Posttreatment assessment indicated that the Difficult Child score remained in this range. PPAS ratings increased for all scales with the exception of Autonomy, which remained unchanged. The greatest change (12 point increase) was observed on the Express Feelings scale. PRQ scales indicated that the Involvement and Parenting Confidence, though improved, remained in the normative range across assessments. Attachment and Relational Frustration scales remained clinically significant, though posttreatment scores were just above the cut-off for clinical significance for both scales. It is notable that despite a posttreatment score in the clinically significant range, an improvement in Relational Frustration was observed. A decrease was indicated in Discipline Practices from the normative range to the clinically significant range.

Participant 7 (P7)

Figure 29 displays ECBI scores for P7. Baseline ratings were stable and in the clinically significant range. Ratings during treatment indicated slight variability across the clinically significant and normative ranges. Data indicated a decreasing trend beginning with session 3 followed by a return to the clinically significant range in session 5 and return to normal limits in session 6. Posttreatment assessment data indicated continued reductions and maintenance of within normal limits performance. All parent report ratings of child disruptive behavior indicated reductions. ECBI scores were in the clinically significant range at pretreatment (T=67) and within normal limits at posttreatment (T=50). All CBCL scores were clinically significant at initial assessment and within the normative range at posttreatment. A 67 point decrease was noted on the FPC at posttreatment.

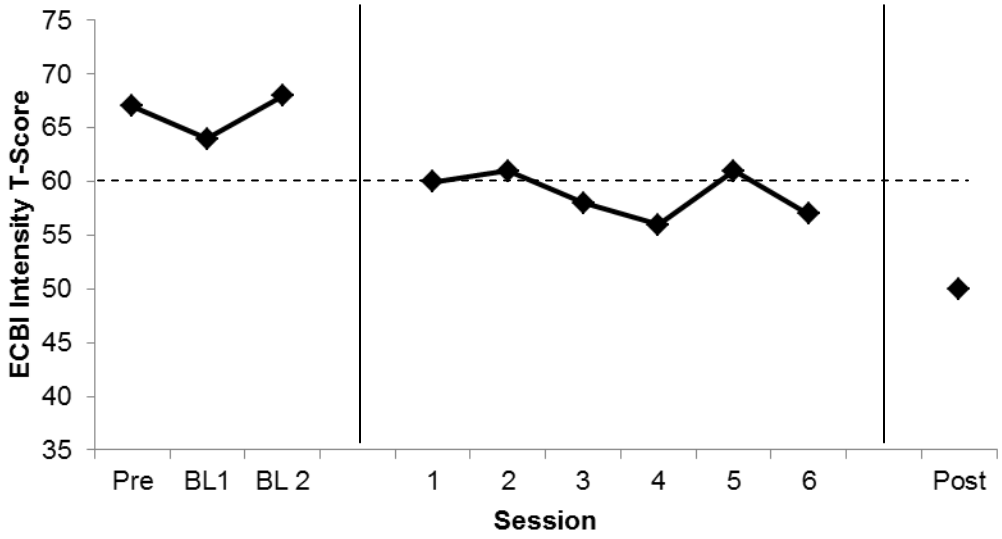

Figure 29. Session-by-Session ECBI Intensity T-scores for Participant 7

Figure 30 displays MEACI scores for P7. With implementation of treatment, there was an immediate reduction (i.e., improvement) in performance on all scales. Stable performance was maintained on the Involvement scale, while an increasing trend (i.e., worsening) was noted across play sessions on the Self-Direction and Acceptance scales.

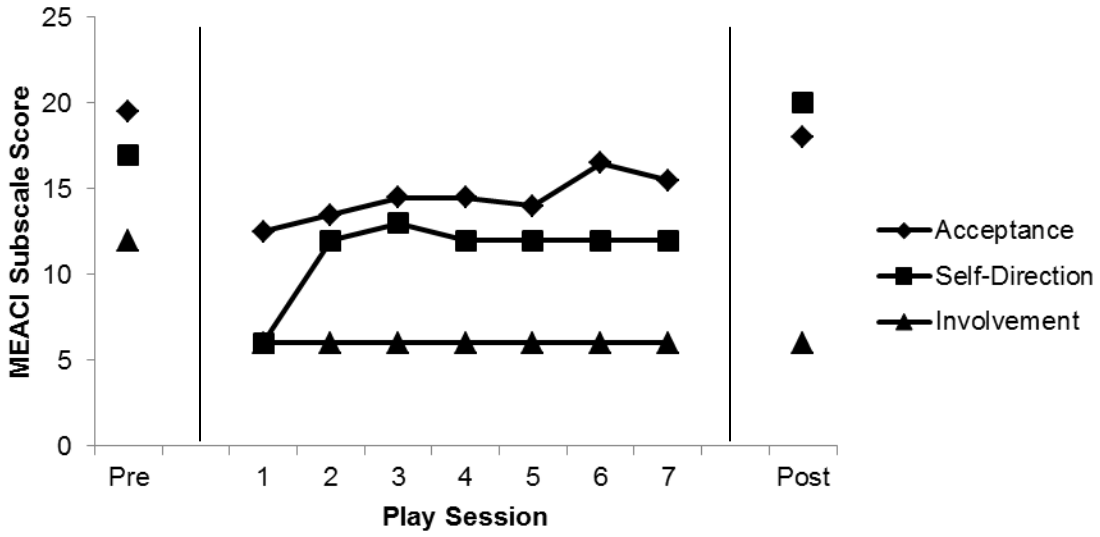

Figure 30. Session-by-Session MEACI Scores for Participant 7

DPICS scores for P7 are displayed in Figure 31. Due to problems with video equipment, play sessions 2 and 3 were not able to be coded. An immediate increase in parent positive behaviors was observed during initial play sessions compared to pretreatment assessment, with a notable decreasing trend indicated in play sessions 4 through 7 and during posttreatment. During initial play sessions, zero rates of negative talk, praise, and commands were observed. Rates of praise and negative talk were observed to increase slightly during the final play sessions and at posttreatment. A total of four instances of child negative behaviors were observed during play sessions with P7, which occurred during play sessions 1 and 4. An immediate decrease in commands

provided during play sessions was observed. During pretreatment, P7 provided 11 commands (child compliant to 73% of commands). Only one additional command was observed during play session 6 to which the child complied. A total of four instances of child negative behaviors occurred across assessments, two during play session 2 and two during play session 4.

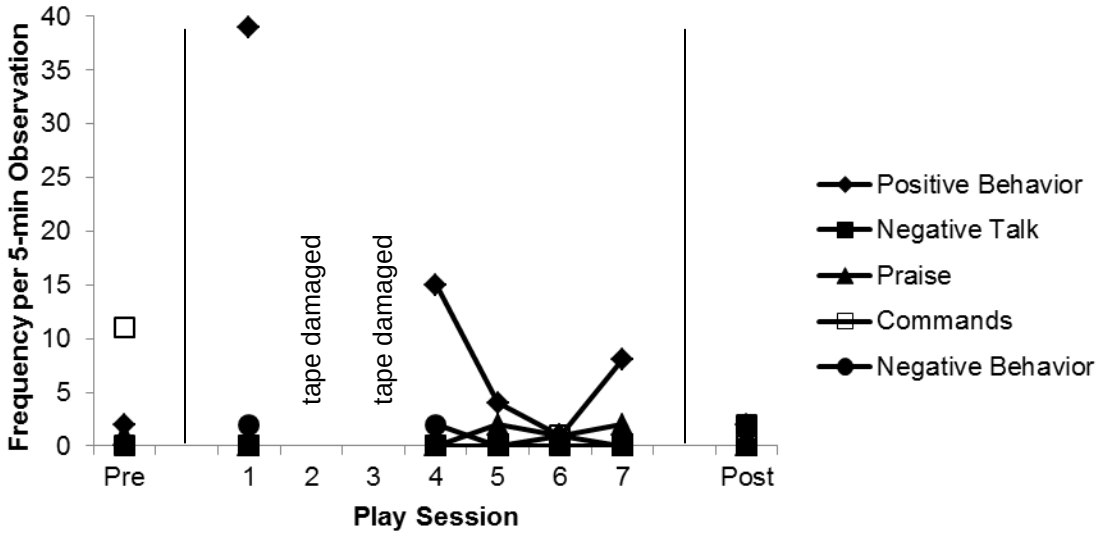

Figure 31. Session-by-Session DPICS Scores for Participant 7

No significant changes in parenting stress were noted at posttreatment: the Parent-Child Difficult Interaction, Difficult Child, and Total Stress scores remained clinically significant and Parental Distress remained in the normative range. PPAS scores were improved across all scales at posttreatment; the greatest observed change (8 point increase) was noted in the Uniqueness scale. Improvements were noted in the parenting relationship relative to Attachment, Involvement, Parenting Confidence, and Relational Frustration. Ratings of Involvement improved and remained in the normative range, while Attachment, Parenting Confidence and Relational Frustration improved but

remained clinically significant. Ratings of Discipline Practices remained stable and within normal limits.

Follow-up Measures

Play Session Follow-up and Client Satisfaction

At posttreatment, 2/7 (29%) participants indicated they had completed independent play sessions with their child during the week between their final treatment session and posttreatment. All participants (3/3) at one-month follow-up reported having continued weekly play sessions. Client satisfaction was measured with the CSQ. Total scores ranged from 30-32 (maximum score of 32); average client satisfaction was 31.57 at post-treatment.

Drop Outs

The following indicate average pretreatment ratings for the three parents who did not complete treatment. Parents reported significant disruptive behavior. Average ECBI Intensity scores were T=74.67; all were in the clinically significant range. Average CBCL Total scores were T=66, CBCL Externalizing scores were T=78.33 and Internalizing scores were T=57. All CBCL scores were clinically significant with the exception of one participant's rating on the Internalizing scale. Average FPC rating was 86.

Regarding the parenting relationship, per the PRQ, average Attachment scores were T=40; 2/3 (67%) were clinically significant though just below the cut-off for clinical significance (i.e., T=39). Discipline Practices scores on average were T=51.33

(all within normal limits), Involvement scores were T=46.33 (2/3 were clinically significant, with one score just below the cut-off score), Parenting Confidence scores were T=31 (all were clinically significant), and Relational Frustration scores were T=80 (all were clinically significant), on average.

PSI/SF ratings of total parenting stress averaged at the 89.67 percentile (2/3 were clinically significant). Average Parental Distress scores were 68.33 (all were within normal limits). Average Parent-Child Difficult Interaction percentile scores were 75 (2/3 were clinically significant) and average Difficult Child percentile scores were 93 (all were clinically significant).

Parental acceptance scores per the PPAS indicated average total scores of 131.67. Average ratings on the Express Feelings, Uniqueness, Autonomy, and Unconditional Love scales were 35, 29, 43.67, and 24, respectively. Demonstrations of Empathy (i.e., MEACI) indicated average total scores of 57.83. Average Acceptance scores were 20.17, average Self-Direction scores were 25.67, and average Involvement scores were 12.

DISCUSSION

Parent Report of Child Disruptive Behavior

The results of the current study suggest that CPRT for parents of children with disruptive behavior was effective in reducing parent report of child disruptive behavior per the CBCL, ECBI and FPC. CBCL Externalizing Problem scores improved from the clinically significant to the normative range for all participants and maintained at one-month follow-up. A comparable pattern was noted on parent report of child disruptive behavior on the ECBI and FPC. ECBI Intensity scores improved from the clinically significant range to the normative range for all participants at posttreatment with the exception of one participant (P3) whose posttreatment T-score was improved by 12 points (i.e., 1.2 SDs) but remained just above the clinical cut-off (T=61). One-month follow-up data indicated scores within normal limits for all participants, including P3. FPC data indicated consistent reductions in parent report of problem behavior with continued reductions noted at one-month follow-up. Improvements were also noted for all parents on the CBCL Total Problems and Internalizing Problems scores, with maintenance at one-month follow-up, suggesting overall improvement in parent perception of general child behavior concerns.

These data are consistent with previous studies which suggest that CPRT is effective in reducing parent report of child disruptive behavior per the CBCL Externalizing score (e.g., Kidron & Landreth, 2010; Smith & Landreth, 2003), parent report of internalizing symptoms per the CBCL Internalizing score (e.g., Smith & Landreth, 2003), and overall behavior concerns per the CBCL Total Problems Score (e.g., Smith & Landreth, 2003;

Tew, Landreth, Joiner, & Solt, 2002). The findings of the current study are also consistent with previous CPRT research which indicated reductions in parent report of disruptive behavior per the FPC (e.g., Bratton & Landreth, 1995; Harris & Landreth, 1997). In addition to demonstrating the effectiveness of CPRT on reducing parent report of disruptive behavior, the data from the current study extend previous findings specifically to parents of children with disruptive behavior concerns.

Parenting Relationship

CPRT aims to improve the parent-child relationship rather than a specific behavioral concern or presenting problem. Unlike previous studies, the current study specifically evaluated the impact of CPRT on parent report of the parenting relationship using the PRQ. PRQ data suggest that CPRT was effective in improving parent ratings of attachment, communication, involvement, parenting confidence and relational frustration with their child. Attachment is assessed on the PRQ by parent report of the bond to the child "as reflected in the parent's feelings of closeness, empathy, and understanding." While ratings of attachment improved slightly for all participants, scores remained in the clinically significant range at posttreatment (with two scores near the clinical cut-off) and one-month follow-up. This suggests CPRT was effective in producing small improvements in parent report of attachment.

Notable improvements were indicated on parent report of communication. The communication scale was assessed for children ages 6 and older and rated parent report of the amount of information their child shared with them and the extent to which they understood this information. All parents (4/4) reported improvement on this scale with

three of four parents reporting improvement from the clinically significant to the normative range at posttreatment. The remaining parent (P2) indicated a noteworthy improvement in communication as indicated by a T-score increase of 17 points (i.e., 1.7 SDs). These data suggest that CPRT may be effective in improving parent report of communication for school aged children with disruptive behavior.

Involvement evaluated the degree of parent participation and engagement in common activities with the child. Though many (4/7) of parents' pretreatment reports were within the normative range, improvements in involvement were noted for most (5/7; 71%) participants. Of three parents who reported clinically significant concerns at pretreatment, one improved to the normative range at posttreatment and one parent's T-score improved 10 points (i.e., 1 SD) but remained just below the cut-off for clinical significance (P2). One-month follow-up data suggested ratings consistent with posttreatment assessment. These data suggest parent report of involvement was improved following participation in CPRT.

Consistent improvements were noted in Relational Frustration (i.e., level of stress relative to controlling the child's behavior and affect) for most (5/7; 71%) parents. Of five parents who initially reported clinically significant relational frustration, one parent's report changed to the normative range at posttreatment and two parents' reports were at or just above the cut-off for clinical significance (P5 and P6). A continued improvement was noted at one-month follow-up for two of three participants. These data suggest CPRT was effective in decreasing parent report of distress and frustration relative to controlling their child's behavior.

Discipline Practices assessed the extent to which parents report applying consequences for misbehavior. Most parents began the study with ratings in the normative range on this scale. Parent report of discipline practices, in general, remained stable. Because CPRT does not focus on discipline strategies (e.g., time out) it would be expected that little change would be noted in this area.

Parenting Confidence refers to feelings of comfort and control in the parenting process and when making parenting decisions. Improvements were noted for approximately half (4/7; 57%) of parents at posttreatment. Of five parents initially reporting clinically significant concerns, one score improved to the normative range. One parent report improved 8 points (i.e., 0.8 SD) but remained just below the cut-off for clinical significance. These data suggest that CPRT promoted improvements in parenting confidence.

These data suggest that participation in CPRT was associated with improvements in attachment, communication, involvement, parenting confidence and relational frustration. Improvement on these scales is consistent with treatment targets addressed in CPRT (e.g., understanding emotions, communicating understanding). These data contribute to the CPRT literature by specifically indicating improvement in parent report of the parenting relationship, the primary stated goal of CPRT.

Parenting Stress

Overall improvements were noted in parenting stress following participation in CPRT. At pretreatment all parents reported clinically significant total parenting stress; the majority of parents (4/7) reported total parenting stress in the normative range at

posttreatment. Total parenting stress scores within the normative range were also observed at one-month follow-up, suggesting that CPRT was effective in decreasing and maintaining overall parenting stress.

The most significant improvements in parenting stress were noted on the Difficult Child (DC) scale, with maintenance of gains noted at one-month follow-up. The DC scale evaluated patterns of behavior that make children difficult to manage including defiance and noncompliance. Most parents (5/7; 71%) reported improvement on the DC scale, with 4/7 parents indicating improvement to the normative range at posttreatment. These data suggest CPRT was effective in decreasing parent report of difficulty managing the child's behavior.

Previous CPRT studies have evaluated parenting stress with the Parenting Stress Index (Abidin, 1995). While not directly comparable, the findings of the current study suggest reduced parenting stress (per PSI/SF total scores) consistent with previous CPRT research (e.g., Costas & Landreth, 1999; Lee & Landreth, 2003). Data from the current study suggest that CPRT is effective in reducing overall parenting stress and specific stress related to managing difficult behavior for parents of children with disruptive behavior.

Parent Acceptance

The results of the current study indicated CPRT was effective in improving parental report of acceptance of their child. Per the PPAS, the majority of parents (6/7; 86%) reported improvements in overall acceptance of their child (as indicated by total scores) with continued improvement noted at one-month follow-up. The most notable

improvement in parental report of acceptance of their child was observed on the Express Feelings and the Uniqueness scales. The Express Feelings scale assessed the extent to which parents report that they are respectful of their child's right and need to express feelings. The Uniqueness scale assessed the extent to which the parent reported valuing and developing the unique character of their child. The majority of parents reported improvements in these areas with overall maintenance of these gains observed at one-month follow-up. Compared to the aforementioned scales, fewer parents reported improvement relative to their child's autonomy and unconditional love for their child at posttreatment. In addition, the magnitude of change observed at posttreatment was lower compared to the Express Feelings and Uniqueness scales.

Greater improvement noted on the first two scales may be attributed to the fact that these scales were more closely associated with the specific play therapy behaviors that parents learned during CPRT. The lesser degree of change noted on the Autonomy scale was likely related to the fact that pretreatment ratings were, on average, approximately 10 points higher than the other PPAS scales. The Unconditional Love scale evaluated parent ratings of affection given variations in child behavior (positive and negative) and across settings (public and private). The smaller improvement on this scale may have been associated with the specific presenting concerns for this study. Parents seeking assistance for child disruptive behavior may have placed a greater value on controlling their child's behavior, a greater value on compliant behavior, and a greater value on the child demonstrating desirable behaviors across contexts, thus influencing their ratings on this scale.

In general, these data are consistent with previous CPRT studies which suggest that this treatment is effective in improving parent report of acceptance of their child (e.g., Kale & Landreth, 1999; Yuen, Landreth, & Baggerly, 2002) and extend previous research by indicating this treatment is effective in improving parent acceptance for parents of children with disruptive behavior.

Direct Observation Measures

Direct observation of parent and child behaviors during play sessions indicate improvements in parent engagement in targeted play session skills. Parents demonstrated consistent improvements in empathic behavior during play sessions with their children as assessed by the MEACI. Consistent improvements from pretreatment to posttreatment assessments were noted for nearly all participants on all scales of the MEACI. The most notable improvements were observed relative to the Self-Direction and the Involvement scales. "Self-Direction" evaluated the parents' willingness to follow their child's lead while "Involvement" assessed parental attention to and participation in the child's activity.

Though not as pronounced, improvements were also noted across participants on the Acceptance scale. "Acceptance" was evaluated through parent recognition of the child's feelings and verbalizations (i.e., reflections) and behavior (i.e., tracking). It is notable that Acceptance scores may have been decreased by several factors. First, parents were frequently observed to reflect their child's verbalizations in question format (e.g., if child stated "I'm playing cars," the parent reflected, "You're playing cars?"). In other words, they demonstrated the target behavior topographically but not qualitatively,

as reflections should be stated, not asked. Second, parents were observed to make statements such as "okay" in response to their child's behavior that likely communicated acceptance, but are not reflected in the data as this was not consistent with the definition of a reflection or tracking statement. Finally, in some cases, opportunities for reflections were limited due to limited verbalizations by the child.

The results of the current study indicate that parents acquired and engaged in targeted play session behaviors during observed play sessions. Consistent with previous studies (e.g., Jang, 2000; Lee & Landreth, 2003), these data suggest that CPRT was effective for increasing empathy for parents of children with disruptive behavior as assessed by direct observation of parents communicating acceptance, involvement, and allowing children self-direction in their play.

Session-by-session MEACI data reveal that parents consistently demonstrated an improvement in communicating acceptance, allowing their child self-direction, and involvement with implementation of the first play therapy session. Most parents maintained stable performance relative to communication of acceptance and involvement across play sessions. Session-by-session DPICS ratings indicated that parents demonstrated consistent improvements in positive behaviors (e.g., reflections) and maintained near zero rates of negative talk across play sessions. Consistent with the goals of CPRT, parents also maintained low rates of praise and commands during play sessions. Session-by session DPICS and MEACI data further support that parents acquired and consistently demonstrated the play session skills targeted in CPRT.

Though acquisition of play session skills was indicated per the DPICS and MEACI, several trends in maintenance of these behaviors across play sessions was

observed. First, consistent decreasing trends in parent positive behaviors per DPICS ratings were observed across play sessions for all parents. At posttreatment, this decreasing trend remained stable for all but two parents (i.e., P2 and P4). Second, though parents initially demonstrated improvements in allowing the child self-direction per the MEACI, consistent decrements in performance were noted for most parents across play sessions. Despite these trends, there were no general increases in child noncompliance or child negative behaviors. These data indicate that parents did not maintain a high frequency of positive behaviors (per DPICS) or demonstrations of willingness to allow the child to lead the play (per MEACI) across play sessions. Given that there were no corresponding increases of observed child disruptive behavior, these data suggest a high frequency of positive behaviors and allowing self-direction may not be necessary to sustain low rates of child disruptive behavior in the short-term (as indicated by parent report of child disruptive behavior on the ECBI, CBCL, and FPC and direct observation of child behavior on the DPICS).

Though short-term maintenance of low rate disruptive behavior was observed, it is anticipated that the long-term impact of this observed decreasing trend in parent behaviors would not be comparable. Attachment and social learning theories suggest the importance of maintaining parent positive behaviors to promote low rate child disruptive behavior. Interactions in families of children with disruptive behavior are typically characterized by low rates of positive interactions, involvement and emotional support. Consistent parental responsiveness and sensitivity to a child's emotional cues are associated with self-control and behavioral regulation of the child while inconsistency, ignoring, and negative responses to child emotional displays are associated with poor

emotion regulation and disruptive behavior (Bowlby, 1969). In addition to low rates of positive interactions, parent-child interactions in these families are often characterized by inconsistent and escalating patterns of negative behavior between parent and child (Patterson, 1982). A lack of parental maintenance of targeted play therapy skills may contribute to future increases in child disruptive behavior. Additional studies are needed to evaluate both the short and long-term impact of the frequency of parent positive behavior and willingness to follow the child's lead during play sessions on child disruptive behavior. The data from the current study suggest that maintenance of parent behavior is of special consideration when using CPRT for children specifically with disruptive behavior concerns. These findings also speak to the importance of evaluating the process of change in play therapy interventions (Baggerly & Bratton, 2010; Phillips, 2010) to determine components that are likely to impact and sustain child behavior change (e.g., self-direction, parent positive behavior).

In terms of child behavior, it is notable that the rate of child negative behavior across all DPICS observations (including pretreatment) was at near zero levels and child compliance was, generally, high. Low initial rates of child disruptive behavior may have been impacted by the novelty of the pretreatment play session, which involved one-on-one parent attention and a novel set of toys in a novel setting. These factors may have functioned to increase appropriate child engagement and reduce child disruptive behavior at pretreatment. Low rate child disruptive behavior during treatment must also be interpreted with caution as the nature of CPRT is to avoid presentation of commands (i.e., restricted opportunities for noncompliance) and to be empathic to the child's feelings. Thus, if a child engaged in a negative behavior such as whining, the parent's role, per the

CPRT model, would be to empathize with the child's possible frustration. The consistent occurrence of low rate child disruptive behavior for all children across play sessions does not permit conclusive statements regarding a functional relationship between parent and child behavior.

Evaluation of both direct observation measures of behavior also speak to a weakness of MEACI data. The MEACI is a partial interval-based recording system in which behaviors are coded during 3-minute intervals with variations in coding procedures across scales. The Acceptance scale represents an average response score per interval which is derived by scoring the highest (i.e., worst) and lowest (i.e. best) level responses per interval, then determining the mean response. Allowing Self-Direction is a partial-interval recording which represents the lowest (i.e., best) level response observed per interval. The Involvement scale represents the "most characteristic level" per interval. This form of measurement is not sensitive to subtle changes in behavior (Cooper, 1987) compared to the frequency data used in DPICS. For example, relative to the Allowing Self-Direction scale, if within the first minute of a 3-minute interval a parent demonstrates the optimal response (i.e., score 1), this interval will be scored as a "1" on the MEACI. Consider that the remaining two minutes of this interval may each be characterized by poorer performance (e.g., scores of 5) by the parent, which will not be reflected in the data. Given the partial-interval recordings and lengthy 3-minute intervals (as compared to brief one minute intervals), MEACI data are best interpreted as an overestimate of target parent behaviors (Cooper, 1987).

Comparison with Previous CPRT Studies

Several non-standardized measures that are commonly used in CPRT research were also used in the current study. A comparison of data from previous CPRT studies that used the FPC, PPAS, and MEACI is provided in Table 14 to aid in interpretation of the findings of the current study. Three studies were identified that used each of the measures indicated above. Each study found statistically significant changes at posttreatment for each measure.

Regarding parent report of child problem behavior, the mean FPC pretreatment score for the present study (86.14) was higher than all means from previous studies (range 34.5 to 61.08). Similarly, FPC means were higher at posttreatment (52.57) than those for previous CPRT studies (range 16.818 to 31), suggesting that children in the present study demonstrated higher rates of disruptive behavior than those in previous studies. Higher ratings on the FPC are anticipated given that the current study evaluated treatment specifically for children with disruptive behavior concerns.

Average PPAS total scores for the current study were 139.71 and increased to 150.28 at posttreatment. Previous CPRT studies report pretreatment PPAS total scores ranging from 127.167 to 140. Posttreatment scores ranged from 152.58 to 165. This indicated that pretreatment ratings of acceptance were slightly higher in the current study, while posttreatment ratings were slightly lower compared to previous research. Lower levels of acceptance at posttreatment observed in the current study may be related to parents' presenting concerns. That is, parents' desire to reduce disruptive behavior and improve compliance may result in lower acceptance scores.

Table 14

Comparison of FPC, PPAS, and MEACI Total Scores to Previous CPRT Studies

	FPC total scores		PPAS total score		MEACI total score	
Study	Pre M (SD)	Post M (SD)	Pre M (SD)	Post M (SD)	Pre M (SD)	Post M (SD)
Bratton & Landreth, 1995	34.5 (28.034)	16.818 (11.839)	140 (17.747)	165.136 (17.6)	55.023 (6.169)	27.318 (3.724)
Harris & Landreth, 1997	61.08 (31.01)	21.08 (9.38)	130.25 (22.14)	152.58 (15.93)	49.96 (6.19)	33.46 (8.25)
Yuen, Landreth & Baggerly, 2002	53.222 (31.116)	30.116 (24.9)	127.167 (12.72)	154.389 (12.939)	47.972 (5.326)	38.806 (8.028)
Current study	86.14 (21.93)	52.57 (29.45)	139.71 (6.47)	150.28 (6.92)	51 (4.58)	35.36 (5.11)

Note. M = mean; SD = Standard Deviation.

Observations of parental displays of empathy were comparable with ratings in previous CPRT studies. Mean pretreatment MEACI total scores were 51 in the current study and ranged from 47.972 to 55.028 in previous research. Posttreatment ratings were also comparable across the current and previous studies. Previous studies reported average total MEACI scores ranging from 27.318 to 38.806. Mean posttreatment ratings in the current study were 35.36. These data suggest that parents in the current study demonstrated comparable levels of empathic behaviors compared to previous CPRT research.

Session-by-Session Analysis

The current study extends previous CPRT research by monitoring the process of change with session-by-session ECBI ratings. ECBI data suggest no definitive patterns

relative to symptom reduction during the treatment phase, as improvements were noted at various points in treatment across parents. Three parents reported reductions in child disruptive behavior beginning with session 3 (i.e., P1, P2, and P7). Two parents reported reductions in child disruptive behavior beginning in session 2 (i.e., P3, P6). The remaining parents reported improvement beginning in sessions 4 (i.e., P5) and 6 (i.e., P4). More specifically, these data indicated that for three parents, reductions in parent report of child disruptive behavior were noted following implementation of play sessions with their children. For two parents, changes were noted following induction into treatment and for the remaining two parents, improvement was noted following participation in multiple treatment sessions.

Though approximately half of parents report change following implementation of play sessions, it is not possible to conclude whether this was the active variable that impacted parent report of child disruptive behavior. The fact that two parents reported decreased child disruptive behavior following their first treatment session, and prior to implementation of play sessions, suggests that play sessions (and corresponding parent behavior change) were not the only factor that impacted parent perception of child behavior. For these two parents, changes in their report of child disruptive behavior may have been impacted by session 1 material which oriented them to the concept that treatment would focus on improving their relationship with their child, not on their child's problems (i.e., potentially increasing their perception or observation of child positive behaviors) and provided instruction on empathic responding to their child's feelings and behaviors (i.e., potentially increasing empathic responses to the child's behavior between sessions). Reductions in disruptive behavior may also be accounted for

by parental expectancy effects following their first treatment session. Finally, one parent reported change following formal instruction on limit setting, suggesting that the combination of relationship enhancement and limit setting behaviors may have led to reduced parent report of child disruptive behavior for this participant.

It is important to note that data from the current study do not account for nonspecific factors within the therapist-parent relationship. As CPRT focuses on an empathic therapeutic relationship between therapist and parent, it is possible that nonspecific therapist factors may have also influenced parent perception of their child's disruptive behavior (e.g., empathic listening to parent concerns). Additionally, variables related to individual parent characteristics (e.g., mental health), child characteristics (e.g., temperament), and historical parent-child interaction patterns (e.g., coercive interactions) that are not accounted for by the measures used in the current study may have also impacted parent report of child disruptive behavior.

Given that CPRT treatment is multi-faceted, the specific component(s) of the intervention that impacted outcomes is not clear. Though it is possible that a single or multiple factors influenced parent report of child disruptive behavior, the data suggest that increasing parent positive behaviors in the context of play sessions is related to decreased parent report of child disruptive behavior. Of note, five parents reported reductions in child disruptive behavior prior to explicit instruction on limit setting skills suggesting that limiting setting skills were not a critical component in reducing parent perception of disruptive behavior.

These findings are of interest, given the two-stage model of empirically supported treatments for children with disruptive behavior which target both parent-child

relationship enhancement (through child centered play therapy) and specific discipline strategies (e.g., time out). To the author's knowledge, no studies have been conducted which evaluate solely the impact of relationship enhancement components without disciplinary strategies as they are presented in empirically supported treatments for children with disruptive behavior. Studies that have evaluated the sequence of these treatment components have found that parent report of disruptive behavior improved regardless of treatment sequence. (Eisenstadt, Eyberg, McNeil, & Newcomb, 1993).

Comparison of ratings of child disruptive behavior in the current study with ratings in previous studies of Parent-Child Interaction Therapy indicated a lower level of pretreatment child disruptive behavior per ECBI Intensity scores. Average pretreatment ratings of child disruptive behavior in the current study was T=66.14. Average pretreatment ratings in published studies range from approximately T=70 to T=74 (i.e., Eisenstadt et al., 1993; McNeil, Eyberg, Eisenstadt, & Newcomb, 1991; Nixon, Sweeney, Erickson, & Touyz, 2003). Average posttreatment ratings in published studies range from approximately T=53 to T=58. Average posttreatment scores in the current study were T=53.57. These findings indicate that a greater magnitude of change was noted in previous studies at posttreatment on parent report of child disruptive behavior compared to the current study.

Improved outcomes for children with externalizing behavior problems are promoted by treatments which involve time out and consistent disciplinary responding (Kaminski, Valle, Filene, & Boyle, 2008). Training on specific disciplinary strategies, however, may be more important for children with higher levels of disruptive behavior. As CPRT does not address specific disciplinary strategies, CPRT may be most appropriate for children

with moderate-high levels of disruptive behavior. Additional evaluation is necessary to clarify this.

Drop Outs

Three parents enrolled but did not complete treatment. Several trends are noted in their pretreatment assessment reports compared to parents who completed treatment. Premature terminators endorsed higher ratings (on average) of child disruptive behavior per the ECBI and CBCL Total Problems and Externalizing Problems scales. Regarding the parenting relationship, these parents provided higher scores (on average) on Attachment, Discipline Practices, and Involvement, though their Parenting Confidence and Relational Frustration scores were lower, compared to parents who completed treatment. In terms of parenting stress, parents who did not complete treatment noted lower parenting stress on all domains of the PSI/SF, though Parental Distress ratings were, generally, comparable. Parental report of acceptance on the PPAS was generally comparable for all parents, though parents who did not complete treatment provided lower scores, on average, on the Unconditional Love scale. Finally, direct observations of parental empathy during play sessions (i.e., MEACI) indicated that parents who did not complete treatment demonstrated higher (i.e., worse) scores on communicating acceptance and allowing the child self-direction. In addition, parents that did not complete treatment were, on average, younger, less likely to be partnered, had lower educational levels, lower incomes, and younger children than parents who completed treatment.

These results provide a rudimentary description of variables that may be related to attrition in CPRT treatment. These findings are consistent with treatment studies of children with disruptive behavior (as cited in Werba, Eyberg, Boggs, & Algina 2006) which indicate more severe conduct problems (e.g., Kazdin, Holland, Crowley, & Breton, 1997), younger maternal age (e.g., Kazdin & Mazurick, 1994), single-parent status (e.g., Dumas & Wahler, 1983), and lower socioeconomic status (e.g., Frankel & Simmons, 1992; Kazdin, et al., 1997, Kazdin & Mazurick, 1994) as predictors of attrition. Additional studies are warranted that evaluate parent and child variables that predict drop-out in CPRT treatments.

Satisfaction and Attrition

Evaluation of participant satisfaction with treatment per the CSQ indicated a high level of satisfaction across all participants with 6/7 participants giving the highest possible ratings on this measure. In addition, attrition rates were low; 7/10 (70%) parents enrolled completed treatment and posttreatment assessment. Only one parent discontinued participation during treatment and did so following completion of all treatment components with the exception of the termination session. Finally, all parents at one-month follow-up reported having continued to implement weekly play sessions with their children. Taken together, this suggests overall parent satisfaction with treatment.

Attrition rates were also notable in that participation in this study was time intensive and involved, on most weeks, three sessions per week (i.e., one therapy session and two play sessions). For families in which both parents participated, this involved a maximum of five appointments per week (i.e., one therapy session and two play sessions

per parent). These data suggest that participants in this study were highly motivated to receive treatment for their child's disruptive behavior, which may impact the generality of the findings.

Limitations

Several limitations are notable given the methodology used in the current study. In terms of the experimental design, treatment was implemented following a pre-determined number of baseline sessions rather than based on stable baseline performance. Half of parents yielded stable baseline responding (i.e., P3, P4, and P7) while the remaining parents yielded decreasing (i.e., improving) trends during the baseline phase (i.e., P2, P5, and P6), per parent report on the ECBI. Due to late enrollment, baseline data points were not able to be obtained for P1. It is notable that during baseline, P2's husband (i.e., P1) experienced a change in job status which resulted in him residing with the family rather than traveling for work; it is possible that the increase in monitoring and attention provided to their child given the presence of two caregivers may account for reduced parent report of disruptive behavior observed during the baseline phase. The baseline phase was also limited in that parent report on the ECBI was not able to be obtained each week for all participants, due to difficulty contacting parents by telephone. This limited the number of baseline data points.

Extending the baseline phase, or requiring stable performance prior to implementation of treatment, may have clarified the impact of CPRT on parent report of child disruptive behavior. A critical component of standard multiple-baseline logic is that change in target behaviors occur only when treatment is implemented (Heward, 1987).

Though half of participants report stable baseline responding, these limitations in using a natural multiple baseline experimental design weaken the certainty with which the results can be interpreted as being related to CPRT.

Another limitation of the current study is that only one baseline data point was obtained for the MEACI and DPICS. This does not permit conclusive inferences on the stability of parent behaviors prior to treatment or whether CPRT was responsible for the change in parent behavior. However, the consistent improvement in targeted parent behaviors observed in the first play therapy session (per DPICS and MEACI) across all parents does yield evidence that CPRT was responsible for this change. It must also be considered that these data would also be limited were play sessions administered weekly during the baseline phase, as there may have been a change in child behavior as a function of the one-on-one play time with the parent, despite the parent not having been trained to demonstrate play session skills.

Consistent with many published CPRT studies, the manualized format of CPRT was modified in several ways. First, treatment sessions were implemented with individual parents rather than in a group format. Second, parents completed two play sessions between treatment sessions rather than one. Implementing treatment in this manner maintained a comparable number of play sessions to the standard CPRT treatment, but decreased the amount of supervision and feedback parents received on their implementation of play session skills and decreased opportunities for parents to ask questions about play sessions. Given that treatment was implemented with individuals, parents were not presented with opportunities to learn from supervision of other parents' play sessions, questions, or experiences. These modifications likely impacted the

intensity of treatment delivered. The reduction in feedback provided to parents may have limited their skill acquisition and the quality of play sessions they held with their children. Despite this thinner schedule of training and feedback, parents noted general improvement across the domain areas assessed (e.g., child disruptive behavior, acceptance of child) suggesting the treatment format in the current study was sufficient.

The current study extended CPRT literature by incorporating a standardized observational measure which includes assessment of child behavior (i.e., DPICS). By nature of the treatment, parents were not to impose demands on their children during play sessions (e.g., children were not required to clean-up toys at the end of play sessions). Observational data on child compliance, therefore, is limited to naturally occurring opportunities within play sessions. Future studies should incorporate structured opportunities to evaluate child compliance to parent directives to determine the impact of CPRT on direct observation of child compliance.

While this study extended previous research by incorporating a one-month follow-up assessment, limited follow-up data were obtained from participants (i.e., only 3/7 participants returned follow-up data). Additionally, no direct observation measures were obtained at one-month follow-up which limits the ability to assess maintenance of skills acquired during treatment and the long-term impact of parent behavior change on child disruptive behavior.

Finally, all assessment and treatment sessions were conducted by the same individual, which may have biased parent responding. It is also possible that decreases observed during the baseline phase for some participants may have been related to this factor. Interpretation of the findings would be strengthened if assessment sessions had

been conducted by an individual not responsible for implementing treatment, and ideally not even familiar with the purposes of the study.

Future Directions

Many studies have been conducted which support the effectiveness of CPRT relative to decreasing parent report of child behavior problems, decreasing parenting stress, and increasing parental acceptance and empathy of the child. Studies which support the effectiveness of CPRT, however, are characterized by several weaknesses which should continue to be addressed in future studies (Bratton et al., 2005; Baggerly & Bratton, 2010). The current study evaluated a modified version of the manualized CPRT protocol, adding to the body of research which indicates the versatility of this treatment. It remains, however, that few studies have evaluated the utility of the standard, manualized 10-session protocol without significant modification. Additional studies in this area are warranted.

Additionally, this represents the first study, to the author's knowledge, that evaluated CPRT specifically for children presenting with disruptive behavior concerns. While CPRT is not a treatment aimed at specific presenting problems, future studies should continue to evaluate the impact of CPRT on specific behavior problems (e.g., Attention Deficit/Hyperactivity Disorder, Oppositional Defiant Disorder, anxiety disorders, etc.) to aid in determining the breadth of clinical utility of this treatment.

In addition to measures typically used in CPRT research, the current study incorporated several standardized measures to evaluate treatment outcomes (i.e., CBCL, ECBI, DPICS), and a specific standardized measure of the parent relationship (i.e., PRQ).

CPRT research will benefit from additional studies which include standardized outcome measures to promote evaluation of change compared to a standard population and assist comparison of change across treatment studies.

Conclusion

The current study provides an initial evaluation of the efficacy of CPRT for parents of children with disruptive behavior. The results offer preliminary evidence for the use of CPRT for children with disruptive behavior between the ages of 3 and 8 to improve parent report of disruptive behavior, various dimensions of the parenting relationship including attachment, communication, involvement, parenting confidence and relational frustration, parenting stress, acceptance of the child, and direct observations of parental displays of empathy and parent positive behaviors.

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Appendix

HSIRB Approval Letter

WESTERN MICHIGAN UNIVERSITY
Human Subjects Institutional Review Board

Date: November 24, 2010

To: Galen Alessi, Principal Investigator
Alison Moses, Student Investigator for dissertation

From: Amy Naugle, Ph.D., Chair

Re: HSIRB Project Number: 10-09-04

This letter will serve as confirmation that your research project titled "Child Parent Relationship Therapy for Parents of Children with Disruptive Behavior" has been **approved** under the **full** category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note that you may **only** conduct this research exactly in the form it was approved. You must seek specific board approval for any changes in this project. You must also seek reapproval if the project extends beyond the termination date noted below. In addition if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: September 15, 2011

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