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The negative cycle of child abuse: the roles of parenting stress, child behaviors, and parenting skills

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THE NEGATIVE CYCLE OF CHILD ABUSE: THE ROLES OF PARENTING
STRESS, CHILD BEHAVIORS, AND PARENTING SKILLS

Thesis

Submitted to the Graduate School of the

UNIVERSITY OF DAYTON

In Partial Fulfillment of the Requirements for

The Degree

Master of Arts in Psychology

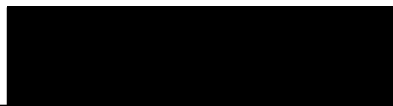
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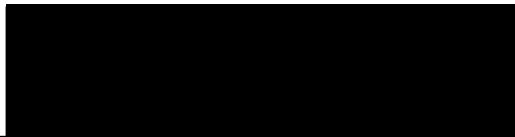
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ABSTRACT

THE NEGATIVE CYCLE OF CHILD ABUSE: THE ROLES OF PARENTING STRESS, CHILD BEHAVIORS, AND PARENTING SKILLS

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This study utilized an archival data set to examine the relative contributions of Parent Child Interaction Training (PCIT), child externalizing behavior, positive parenting skills, and negative parenting skills in the reduction of parenting stress. It also explored how final level of parenting stress differed in the reabused versus nonreabused groups if final child behavior, final positive parenting skills, and final negative parenting skills were controlled for.

Participants ($N=110$) were referred as they entered the child welfare system for a new physical abuse report. A baseline assessment was conducted, including a review of the child welfare investigation and all prior child welfare reports, administration of self-report measures or structured interviews, and an observational coding of a structured parent-child interaction. Parent-child dyads were then randomly assigned to one of three parenting intervention conditions, PCIT, Enhanced PCIT, or a Community Group. As hypothesized, it was found that a change in child externalizing behavior and a change in negative

statements made by parents were each unique predictors in the amount of change in parenting stress. Contrary to hypothesis, it was found that treatment group and positive parenting skills were not significant predictors of the amount of change in parenting stress. Furthermore, it was found that there was no significant difference between parents who reabused their children and those who did not, in terms of final parenting stress. Study limitations were discussed.

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CHAPTER I

INTRODUCTION

Although all caregivers experience stress associated with parenting, those who have children with disruptive behavior problems consistently report higher levels of stress (Mash & Johnston, 1990). This increased level of stress results in strain on parental functioning and serves as a source of negative parent-child interactions. Parenting stress has been repeatedly linked with abusive parenting behaviors (Chan, 1994; Webster-Stratton, 1988). When compared to nonabusive parents, physically abusive parents have more strained relationships with their children (Burgess & Conger, 1978; Egeland, Breitenburcher, & Rosenberg, 1980; Wolfe, 1987), tend to engage in more negative interactions and fewer positive interactions with their children (Allesandri, 1992; Bousha & Twentymen, 1984; Kavanagh, Youngblade, Reid, & Fagot, 1988), and are more likely to engage in less effective, more negative, and more physical discipline strategies (Lahey, Conger, Atkeson, & Treiber, 1984; Oldershaw, Walters & Hall, 1986). Consequently, when treating physically abusive parents and their children, it is important to incorporate both the parent and the child, to alter the pattern of

interactions in the abusive relationship, and to provide a means to decrease negative affect and promote more positive affect and discipline strategies.

Hastings (2002) argues that parents and children reciprocally influence each other. Children's behavior leads to increased stress in parents, which results in the parents adopting behaviors that reinforce the child's behaviors. Training parents in how to effectively deal with a child's negative externalizing behaviors may decrease levels of parenting stress, break the negative cycle that develops between parents and children, and consequently decrease the likelihood of future abuse.

Parent-child interaction therapy (PCIT) is a treatment that has been designed for families with pre-school aged children with a wide range of disruptive emotional and behavior problems. PCIT therapists provide support and problem solving skills for parents while working with the parent and child together to facilitate behavioral changes (Neary & Eyberg, 2002). Although the effectiveness of PCIT has been documented, the research investigating the effects on physically abusive parents is limited. The objective of this study is to determine the relative contribution of child behavior, positive parenting skills, and negative parenting skills in the reduction of parenting stress in parents participating in Parent-Child Interaction Therapy. An additional objective is to determine the relative contribution of parenting stress, child behavior, positive parenting skills, negative parenting skills, and the completion of PCIT in predicting instances of reabuse.

The Influence of Child Behaviors, Parenting Stress, and Parenting Skills on Instances of Child Abuse

Physical abuse of children is a major social concern. In addition to the immediate impact abuse has on children, there are also significant long term sequelae (Borrego et al., 1999; Dore & Lee, 1999; Uriquiza & McNeil, 1996). Consequently, it is crucial for professionals to be able to identify characteristics that may serve as risk factors for abuse. Of utmost importance when determining families that are at risk for abuse are child behavior, parenting skills, parenting stress, and the cycle that develops to sustain them.

Child Behavior Problems and Physical Abuse

Child characteristics can play a vital role in the coercive parent-child interactions that often lead to physical child abuse (Trickett & Kuczynski, 1986). Although a number of child characteristics have been found to increase the risk of child abuse, behavior problems are consistently found to be one of the most problematic areas (Alessandri, 1991; Famularo, Kinscherff, & Fenton, 1990; Lynch & Cicchetti, 1991; Smith & Hanson, 1974). Physically abused children display a stable and consistent pattern of physical aggression, defiance, noncompliance, antisocial behaviors, and negative affect (Kolko, 1992; Uriquiza & McNeil, 1996; Wolfe, 1987). Additionally, abused children have been found to exhibit more rule violations involving aggression and oppositional behaviors (Trickett & Kuczynski, 1986) and tend to exhibit poor self-control, higher distractability, negative affect, and resistance to directions (Gaensbauer & Sands, 1979).

Parenting Stress and Physical Abuse

Child characteristics make important contributions to perceived parenting stress, which appears to be directly linked to abuse. Physical abuse is more likely to occur when parents' perceived stressors outweigh their resources to cope with those stressors.

Stress, in its most general aspect, refers to a condition of perceived tension between demands and resources, and depends on ongoing evaluations of both elements as they present themselves in existing events (Koeske & Koeske, 1990). Parenting stress is a particular kind of stress that is perceived by the parent as stemming from the demands of being a parent. There is a general consensus in the literature that views parenting stress as involving a mismatch between perceived resources, such as self-efficacy and social support, and the actual demands of the parenting role (Morgan, Robinson, & Aldridge, 2002). This mismatch results in negative feelings toward the self as well as toward the child or children, and has been identified as an influential factor in parenting behavior as well as a predictor of dysfunctional parenting (Rodgers, 1993). It is important to note that the majority of research that has been done in this area has been correlational in nature. Although results have been consistent, no studies have been done controlling for other possible factors. This being said, several studies have suggested a relationship between higher levels of parenting stress and problems in parent and family functioning as well as less optimal parent-child interactions (Ostberg & Hagekull, 2000).

Several models of parental stress exist in the literature, each of which reflects the complex interaction of these variables. For example, Abidin (1990) suggests that dynamic multivariate models that take into account the interactions between variables, such as psychological well being, gender, and social support and changes in child behaviors, including hyperactivity, moodiness, demandingness, and cognitions as a function of recurring events best explain the factors related to parenting stress, dysfunctional parenting, and child outcomes. Parental stress may arise from a plethora of sources, including life events and daily hassles (Crnic & Greenberg, 1990; Kanner, Coyne, Schaefer, and Lazarus, 1981), child temperament (Fuller & Rankin, 1994; Hagekull, 1985; Mash & Johnston, 1983; Thomas, Chess, & Birch, 1968), caretaking hassles such as feeding and sleeping problems, illness, and excessive crying (Beebe, Casey, & Pinto-Martin, 1993; Ostberg, 1998), and availability of social support (Younger, 1991).

A principle point of focus for several theorists has been the negative cycle that develops between parents and their children to maintain parenting stress and negative child behaviors. Research on child effects has shown that adult behavior is influenced by the child's problematic behavior (Carr, Taylor, & Robinson, 1991; Hastings, Remington, & Hall, 1995). Children's behavior problems lead to stress in parents, and parents under stress adopt certain parenting patterns that reinforce the child's behavior. In addition, research suggests that abusive parents experience more difficulty managing stress and may experience events as more stressful than nonabusive parents (Azar, Breton,

& Miller, 1998). Therefore, it seems that understanding the unique contributions of child behavior problems and parenting stress would inform efforts to prevent future abuse.

In response to the great deal of research that has described the contribution of both child behaviors and negative parenting toward problems in family functioning and parent-child interactions, Osteberg and Hagekull (2000) developed a structural model of parenting stress that indicates alternative ways of breaking vicious negative cycles in families with young children. They emphasize the importance of family intervention programs targeting the different sources of parenting stress as a part of the intervention.

Parenting Skills and Physical Abuse

Research has suggested numerous differences between abusive and nonabusive parents, including higher incidences of depression, poorer problem solving skills, a lower sense of efficacy (Azar, et al., 1998), and a lack of social skills (Azar and Twentymen, 1986). However, one of the differences most immediately related to child abuse involves a difference in parenting skills.

Research shows that physically abusive parents are more likely to engage in less effective and more aversive discipline strategies and to rely more heavily on "power assertion strategies" (e.g. threats and negative demands) and less on positively oriented strategies, such as reasoning (Kelly, Grace, & Elliot, 1990; Milner & Chilamkurti, 1991; Oldershaw, Walters, & Hall, 1986). In addition, it was found that abusive parents have more negative expectations of children's behavior. These negative discipline strategies coupled with the negative

expectations of children are likely to have an effect on children's acceptance and behavior (Milner & Chilamkurti, 1991; Oldershaw, Walters, & Hall, 1986).

Patterson's (1976, 1982) coercion hypothesis has often been used to explain why parents choose coercive parenting strategies and accounts for the development and maintenance of negative parent-child relationships and child behavior problems. In essence, this hypothesis suggests that a number of conditions can ensure that children maintain an aversive control strategy over their parents. With this strategy, a parent's command is followed by child noncompliance or defiance, which results in a removal of the original parent command. The child learns that he or she can terminate the parent command by engaging in coercive behaviors. Over time, the child learns to repeat or escalate coercive behaviors as a means to terminate parental commands. This leaves parents with the choice of either withdrawing the command and negatively reinforcing the child's aversive behavior, or responding with coercive behaviors themselves (e.g. yelling, hitting, etc.). Urquiza and McNeil (1996) suggest that parents may engage in physically abusive behavior as a means to get the child to comply with the original command. The child may respond to the parent's escalated behavior, which thus reinforces the parent's coercive behavior. Consequently, abusive behavior is more likely to become an option that parents utilize in future parent-child conflicts. Oliver (1995) takes into account the fact that children and parents reciprocally influence each other; therefore, child behavior is affected by parental behavior, which, in turn, has effects on parenting

skills, thus resulting in the sustaining of the coercive cycle between parent and child.

Therefore, research suggests that child behavior, parenting stress, and parenting skills are three critical components involved in the coercive cycle, which leads to the development and maintenance of the negative cycle of child abuse. Consequently, treatment interventions should be individually tailored to each parent targeting these components, while also taking into account other ecological factors.

Interventions to Reduce Physical Abuse

The cycle that develops between child behavior problems, parenting stress, and poor parenting skills has been well documented; however, few treatment approaches target the individual components of the cycle. Instead, treatment options are typically cognitively or behaviorally focused. The cognitive approaches deal directly with how to manage stress by teaching parents self control and anger management. On the other hand, the behavioral approach deals directly with parenting skills and teaches parents child management techniques and social skills (Borrego, Urquiza, Rasmussen, & Zebell, 1999; Chaffin et al., 2004). Theoretically, addressing the behaviors using positive parenting skills should result in decreased levels of parenting stress. Unfortunately, the research examining the effectiveness of most of these interventions is sparse.

Anger Management Training

Although anger management programs have been found to be effective in improving coping skills, decreasing pathology, and providing parents with prosocial communication and problem solving skills (Achmon, Granek, Golomb, & Hart, 1989; Acton & During, 1992; Hazaleus & Deffenbacher, 1986), there is very limited research available examining the effectiveness of anger management programs with physically abusive parents.

Several preliminary investigations suggest that anger management may be an effective component for treating physically abusive parents. Acton and During (1992) provided 13 weekly 90 minute sessions to 47 parents who were currently involved or had past involvement with a government child protection agency. Anger management, communication skills, problem solving skills, and empathy enhancement were all targeted. During the anger management module, parents received a model of anger, relaxation skills, adaptive cognitive strategies, practice in anger management techniques, and role playing opportunities. Each session began with a discussion of clients' success with previous homework, followed by a short lecture of the new skill. Group members practiced the skill with each other and then participated in a large group discussion to learn how to apply each skill within the home. Posttreatment Child Abuse Potential Inventory (CAPI) results suggested that the treatment reduced the future risk for parents to physically abuse their children. Results of the Index of Parenting Attitudes (IPA) suggested that the relationship between parent and child was improved over the course of treatment. Although the Eyberg Child Behavior Inventory (ECBI)

Intensity subscale scores did not change, results of the Problems scale indicated that parents felt less stressed by the disruptive behaviors. In summation, posttest results suggested that aggressive parents were less likely to abuse their children, experienced less child-related stress, fewer problems with disruptive behavior, and more satisfaction in their relationships with their children following treatment (Acton & During, 1992). However, it is important to note that there was no control group used in this investigation.

The Colorado RETHINK Parenting and Anger Management Program has also found some promising results for this method of intervention (Fetsch, Schultz, & Wahler, 1999). The RETHINK program was developed by a team at Colorado State and was delivered to 58 mothers and 17 fathers. Program objectives include increasing knowledge about parenting, child development, and anger management, improving attitudes about parenting and anger management, making positive behavioral changes, increasing anger control levels, decreasing unrealistic expectations of children, and decreasing family conflict. Preliminary data suggest that parenting skills, discipline strategies, and anger management skills improved, consequently reducing the likelihood of future abuse. However, there was no treatment control group (Fetsch et al., 1999).

Parent Training

Another treatment intervention focuses on the development of specific parenting skills. Parent training programs target poor parenting skills which directly contribute to the negative coercive cycle and negative parent-child

interactions, and provide a way to replace the negative affect and coercive discipline strategies with positive affect and more appropriate discipline strategies (Dore & Lee, 1999; Urquiza & McNeil, 1996).

One intervention strategy that incorporates all of these components, and has been proven effective in dealing with children with behavior problems is Parent Child Interaction Therapy (PCIT). PCIT outcome research has shown significant improvement in child behavior problems (Schuhmann, Foote, Eyberg, Boggs, & Algina, 1998).

Parent Child Interaction Therapy (PCIT). Developed by Dr. Constance Hanf (1969), PCIT is based on a two-stage operant conditioning model for modifying behaviors in children and aims to help parents develop a responsive relationship with their child and to manage their child's behavior more effectively. In the first stage, parents were trained to give their attention to all of their child's positive behaviors and to ignore all of the negative ones. In the second stage, parents were taught how to give clear direction, to reward compliance with praise, and to use time-out methods for noncompliance. Eyberg was especially drawn to Hanf's approaches working with the parent and child together (Hembree-Kigin & McNeil, 1995).

PCIT has been an approach identified for children with a range of problems (Hembree-Kigin & McNeil, 1995). PCIT is most appropriate for children with externalizing problems (e.g. noncompliance, defiance, verbal and physical aggression), pre-conduct disordered behaviors (e.g., cruelty to animals, stealing, lying, fire-setting), inattention and overactivity, internalizing problems (e.g.,

anxiety, sad affect, low self-esteem), developmental problems resulting from mild to moderate mental retardation, parent-child relationship problems resulting from divorce or adoption, and sequelae of abuse and neglect. However, it is important to realize that not all families will benefit equally from PCIT. Caregivers who are highly resistant to treatment, are court-ordered to participate, are experiencing marital discord, suffer from severe psychopathology (eg., major depression or thought disorders), or who are actively abusing alcohol and other substances are less likely to benefit from PCIT (Hembree-Kigin & McNeil, 1995).

PCIT depends a great deal on assessment information as a means to delineate the problem areas that need to be addressed, to help guide the course of treatment, and to evaluate outcomes. The initial assessment involves a parent interview that provides a detailed behavioral description of the child's problems. The interview also provides a way of determining the parent's motivation for involvement with the treatment. A play interview with the child may be used to assess the child's current responsiveness to social reinforcement and to adults other than the child's parents. Parent rating scales are utilized to assess the level of behavior problems and the degree of parenting stress in the parent-child relationship. In addition, direct observations of the interactions between the parent and child are recorded using the Dyadic Parent-Child Interaction Coding System (DPICS; Eyberg, et al., 1994). This is used to determine the level of parenting skill and the child's responsiveness to the parent in three, 5-minute standardized situations that involve labeling child-directed interactions, parent

directed interactions, and clean up. These sessions vary depending on the degree of parental control that is required.

Treatment has two phases: child-directed interaction (CDI), and parent-directed interaction (PDI). The primary goal of child-directed interaction is to create or strengthen strong, positive parent-child relationships, in which negative attitudes of frustration are decreased as a means of allowing effective positive behavior changes to occur. CDI incorporates techniques from client-centered play therapy with the parent playing the role of the therapist. Parents are taught to follow the child's lead during these sessions. They are taught specifically how to avoid leading behaviors, such as commands and questions. When children are given a lead, opposition rarely occurs, which allows the parent to attend to the child's appropriate talk and play. In addition, parents are taught how to attend by describing and imitating the child's play, by answering the child's questions and reflecting statements, and by praising the child. If undesirable behaviors occur, parents are encouraged to avoid criticizing the child by ignoring the behaviors. Parents are guided and coached in the use of the CDI skills with their child until the data from the 5-minute coded interaction at the start of the session have met pre-set criteria. The parents must verbalize a minimum of 25 descriptive and reflective statements and at least 15 praises (at least 8 must be labeled) and without any questions, commands, or criticisms. Parents must also ignore harmless, undesirable behavior. Once parents have met all of the criteria, the second phase of treatment may begin. However, CDI skills continue to be a vital part of therapy and continue to be coded at the beginning of each session.

The primary goals of PDI are to increase the child's prosocial behaviors and to decrease inappropriate behaviors that are too harmful to be ignored, are controlled by reinforcers other than parental attention, or do not extinguish easily. Techniques such as social reinforcement, punishment, and problem solving skills training are incorporated. During PDI, parents still give positive attention to appropriate behaviors and ignore inappropriate behaviors. However, instead of just responding to behaviors from the child, the parent leads the activity by giving verbal directions and applying consequences for compliance and noncompliance. PDI provides parents with a procedure for obtaining compliance in a way that is fair to the child because the child has a clear understanding of what is expected and knows what consequences will be if he or she obeys or disobeys.

Parents are taught to give clear, direct commands to the child and are taught not to use indirect commands, which attempt to direct the child by using vague suggestions. Explicit rules for commands are taught to the parents because a correct command is central to the effectiveness of the treatment. An appropriate command satisfies three criteria. First of all, the parent must tell the child what to do, as opposed to what not to do. Next, the command must call for a behavior that the child is developmentally able to do. Finally, the command must only require one behavior at a time to be performed by the child.

Once a command has been given, follow up procedures must be carried out exactly. Parents are taught to ignore inappropriate behavior unless it is directly related to the command or involves injury to the child or others. They are also taught only to attend to whether the child obeys the command or not. If the

child obeys, the parent is instructed to give labeled praise and then to return to CDI techniques until they are ready for another command. If the child disobeys, parents are told to initiate the time-out procedure. Parents are taught the importance of not ignoring noncompliance because it is a behavior that is reinforced by parental attention as well as avoiding what the child does not want to do.

The time out method that is used provides parents with a concrete, standard, and easily administered set of steps consisting of three levels: warning, time out chair, and time out escape procedure. At each point, the child has the choice to stop the sequence by complying with the given command. The sequence does not stop until the child obeys the original command. A warning is given to the child after the first time the child fails to obey. If the child obeys the warning, the parent gives the child labeled praise and the play continues. However, if the child fails to obey again, the parent takes the child to the time-out chair immediately and instructs the child to "stay in the chair until I tell you that you can get off." Once the child is on the chair, the parent is taught to ignore all behaviors. Time out will last until the child's behavior is able to be controlled. After the time out period, the parent asks the child if he or she is ready to obey the original command. If not, the child begins another time out period. If yes, the parent acknowledges the compliance, but does not give praise because the child did not originally comply with the given command. The parent then issues a second similar command and follows the same routine – warning if necessary, time out for noncompliance, and praise for compliance. This helps children to

differentiate between reinforcement for immediately obeying, and obeying after being punished.

Several time out escape procedures have been developed that vary according to the characteristics of the parents and child. Some of the methods that have been used in the past include a spank (Day & Roberts, 1983), a chair hold, or the removal of privileges (McNeil et al., 1994). After the time out escape procedure, the child is then returned to the time out chair and then given a choice to comply with the original command.

Effectiveness of PCIT. Studies examining the effectiveness of PCIT have shown statistically and clinically significant improvements in disruptive behavior and noncompliance, parenting skills, and parenting stress. However, most studies have consisted of a pre-post design, with fewer controlled outcome studies (Eyberg & Robinson, 1982; McNeil et al., 1991; Nixon, 2002).

Effects of PCIT on family functioning, such as child and sibling behavior and parental adjustment, were investigated in a study by Eyberg & Robinson (1982). In a group of seven children that were referred for aggression, hyperactivity, and destructiveness, improvements in compliance and a reduction of deviant behaviors were reported and observed clinically after nine weekly 1-hour sessions with the parent-child dyad. It was found that parents observed a considerable decline in the frequency and intensity of home behavior problems.

Treatment effects were also found to generalize to siblings' behavior at home. After treatment, observed deviant behavior was within the normal range for both the target children, as well as the siblings. Siblings' deviant behavior was

reduced while compliance with both mothers and fathers increased (Eyberg & Robinson, 1982).

Eyberg & Robinson (1982) also looked at parental anxiety and adjustment. They found significant changes in maternal adjustment, which was measured using the MMPI and the Taylor Manifest Anxiety scores. A reduction in anxiety suggests the potential for a decrease in parenting stress. Following training, mothers showed less anxiety and pessimism along with increased internal control. There was no significant change in fathers' MMPI scores. While the parental attitudes toward the targeted child as measured by the Becker Bipolar Adjective Checklist improved during treatment, the attitudes toward siblings were positive at both assessments. Parents were shown to ask fewer questions, make more reflective statements, give more labeled and unlabeled praise, and give more clear direct commands than they had prior to training. They also gave more opportunity for their children to comply, and issued fewer critical statements. While this study suggests that PCIT resulted in improved parental attitudes and decreased levels of parenting stress, they must be interpreted tentatively because of the small sample size and lack of a control group.

Results of a controlled investigation by McNeil et al. (1991) found that the results of PCIT were generalizable to the school setting. Thirty children between the ages of 2 and 7 years old participated in the study. They were divided into three groups: a treatment group, normal classroom controls, and untreated deviant classroom controls. Teachers were aware of which children were receiving treatment because it was necessary to receive permission for

conducting classroom observations. In the classroom, children were coded for appropriate versus oppositional behavior, compliance versus noncompliance and on task versus off task. None of the families dropped out of treatment. Results indicated that successful treatment of home behavior problems is linked to improvement in certain behaviors in the school setting. The study provided significant improvements in classroom noncompliance and disruptive behavior. There was a lack of generalizability in the area of peer relationships; however, children who received treatment were seen to demonstrate more advanced social competencies after treatment.

Nixon (2001) looked at 34 parent-child pairs that were randomly assigned to either a group receiving PCIT or a wait-listed group (WL). Additionally, a group of 21 preschoolers with no significant behavior problems was included as a social validation comparison condition (SV). A structured clinical interview was conducted to provide a diagnostic assessment using DSM-IV criteria for disruptive disorders such as ADHD, while parental report was used to obtain measures of behavior and temperament. Those preschoolers who received PCIT treatment were reported to have reduced hyperactivity by parental report. Furthermore, clinical assessment following PCIT indicated that these children met fewer criteria for ADHD than the WL group. In addition, 6 months following treatment, ratings of oppositional behavior and hyperactivity within the PCIT group were comparable to those children within the SV group.

In addition, ordering effects have also been investigated. A study by Eisenstadt et al. (1993) evaluated the contribution of each stage of PCIT, in

addition to the stage order on post treatment outcome. Twenty-four families with a child between the age of 2 ½ and 7 referred for the treatment of a behavior problem were included in the study. The families were assigned by random block design to receive either CDI or PDI first. The effectiveness of the two treatment stages was determined by comparing outcome gathered at midtreatment by both the CDI-First and PDI-First groups. The effect of stage order was evaluated by comparing the post treatment outcome of each group, after completing both stages of treatment. Results showed that across both conditions, the PDI stage resulted in a greater reduction in maternal report of child behavior problems when compared to the CDI stage. The PDI stage was also found to be more effective for improving observed child compliance. After 14 weeks of treatment, both groups moved into normal limits on parent-report measures of child behaviors after both stages of treatment were completed. However, the PDI-first group reported a higher level of post treatment satisfaction. Due to a high rate of dropout, the investigators were unable to determine the impact of stage order on the effectiveness of PCIT.

Long-term effects of the treatment have been observed as well. Investigations by Eyberg et al. (2001) examined the long-term treatment outcomes for 13 families who had received PCIT one and two years earlier. Eleven out of the 13 families demonstrated change on both observational as well as parent report measures immediately following the training. The treatment effects were sustained for eight of the families for one year and for nine families at the two-year follow up. In another study, at a two-year follow up, parent ratings

of child behavior problems, child activity level, and parenting stress were all maintained (Newcomb, et al., 1990). Similarly, Hood and Eyberg (2003) examined the long-term maintenance of changes following PCIT for children with oppositional defiant disorder and associated behavior disorders. Twenty-nine of 50 participants were located 3 to 6 years after treatment. The mothers of 23 children between the ages of 6 and 12 participated in telephone and mail follow-up assessments. Results indicated that the significant changes that mothers reported in their children's behavior and their own locus of control after treatment were maintained.

Although several studies have evaluated child behavior problems, no studies have examined the effects of PCIT on parenting skills and parenting stress. This is important since all three components have been identified as being vital in the vicious cycle of abuse.

Several researchers have argued that PCIT is a suitable treatment option for physically abusive parents because it focuses on the parent child relationship by increasing positive and decreasing negative interactions. In addition, the direct coaching of individual families allows the treatment to be tailored to individual needs and may be more effective with abusive families than group training (Borrego et al., 1999; Urquiza & McNeil, 1996). However, there is very limited research available on its application to and effectiveness with physically abusive parents.

Many of the parental characteristics that have been identified as predictors of abuse, such as poverty, depression, single parenthood, social isolation, and

poor problem solving skills (Azar, et al.,1998; Milner & Chilamkurti, 1991) are also indicators of poor outcomes in parent training. Therefore it is important to examine the effectiveness of this approach with an abusive population.

Present Study

Research has suggested that a reciprocal relationship between child behavior problems and parenting stress exists and that it is linked to physical abuse. More specifically, it has been found that children with externalizing behavior problems tend to elicit negative responses from their parents, resulting in the development of a negative cycle that functions to maintain parenting stress as well as negative child behaviors. Despite the fact that child abuse has severely negative effects on children, very few studies have been done examining the relationship between problem behaviors, parenting skills, and parenting stress with abusive parents. In addition, while a significant amount of research has been done investigating the cycle of abuse, little has been done to examine the unique contribution of parenting stress to determine if it plays a significant role in reabuse or if it is merely a correlate of parenting skills and externalizing child behavior. Based on the current available research, it is unclear whether targeting parenting stress in and of itself is enough to break the cycle of abuse.

PCIT is an intervention strategy that has been found to be effective in reducing behavioral problems and promoting positive parent-child interaction in

young children by directly targeting parenting skills (Rayfield, Monaco, & Eyberg, 1991; Nixon, 2001). Although there is limited research investigating its effects with physically abusive parents, it has been classified as an empirically supported treatment that has been demonstrated to be effective with a wide array of child behavior and parent-child interaction problems (Eisenstadt et al., 1993; Hembree-Kigin & McNeil, 1995).

The present study utilized secondary analyses on a project comparing PCIT and a standard community-based parenting group to address the following questions:

- (1) What are the relative contributions of PCIT, pre-post changes in child externalizing behavior, pre-post changes in positive parenting skills, and pre-post changes in negative parenting skills in the reduction of parenting stress? It was hypothesized that decreases in child externalizing behavior and negative parenting skills, increases in positive parenting skills, and participation in PCIT would be associated with decreased parenting stress.
- (2) Does the final level of parenting stress differ in the reabused versus nonreabused groups if final child behavior, final positive parenting skills, and final negative parenting skills are controlled for? It was hypothesized that parents who reabused their children would have had higher levels of parenting stress at the

conclusion of the study than those who did not reabuse their children.

CHAPTER II

METHOD

This thesis involves a secondary data analysis on data collected by Chaffin et al. (2004). The information about the participants and procedure is based largely upon Chaffin et al. (2004).

Participants

Three hundred parent-child dyads were referred as they entered the child welfare system for a new physical abuse report. In order to participate in the treatment, the abusive parent and at least one abused child had to be able to participate together, no legal termination of parental rights had been initiated, the abusive parent had a minimum IQ of 70, the child was between the ages of 4 and 12, the abusive parent did not have a child welfare report as a sexual abuse perpetrator, and the parent provided voluntary informed consent to participate. Of the 300 referred, 112 met criteria and were enrolled in the study. Two dyads were later removed because it was thought that the parents did not comprehend assessment questions and were consequently unable to provide valid data, leaving a final sample of 110 parent-child dyads. Nonabusive parents and nonabused siblings were eligible to be included as participants in the treatment but did not provide any data.

Measures

Child Abuse Potential Inventory

The Child Abuse Potential Inventory (CAP; Milner, 1986) is an instrument designed as a screening tool for detecting parents at risk for physical child abuse. It consists of 160 items in an agree-disagree format questionnaire that is completed by the identified abusive parent. The CAP consists of six abuse scale factors that measure Distress, Rigidity, Unhappiness, Problems With Child and Self, Problems With Family, and Problems With Others (Milner, 1986). Test-retest reliabilities for the CAP abuse scale were .91 for one day, .90 for one week, and .83 for one month. Internal consistency reliabilities ranged from .92 to .96. KR-20 reliabilities ranged from .89 to .95 across all subgroups of subjects. In addition, Split-half reliabilities range from .90 to .97 (Milner, 1986). In terms of concurrent validity, 13 out of 14 studies designed to examine correct classification rates for both abusive and matched non-abusive parents revealed a mean correct classification rate of between 85.4 and 96.2% (Milner, 1986). A study examining predictive validity revealed a significant positive correlation between the abuse scale and subsequent abuse in a sample of parents receiving services because they were at-risk for abuse (Milner, 1986). For the present study, the Distress scale was utilized to assess levels of parenting stress. It has a range from 1 to 262. The mean Distress score for the normative sample was 58, with a median of 38.5, and a standard deviation of 56.8. The clinical cutoff score for the Distress scale is 152.

The Behavior Assessment for Children

The Behavior Assessment for Children (BASC; Reynolds & Kamphaus, 1992) is an instrument that is used for rating emotional and behavioral problems of children ages 4 to 18. The parent form of the BASC was utilized in this study. The BASC includes measures of adaptive and problematic behaviors, and reports of internalizing and externalizing behaviors. For this study, the BASC was utilized to assess child externalizing behaviors. Average T-scores on the BASC fall between 41 and 59, with a T-score of 70 or above being clinically significant. Internal consistency reliabilities of the Externalizing Problems composite score are in the middle .80s to low .90s. Test-retest reliabilities of the Externalizing Problems composite score range from .74 to .91 (Reynolds & Kamphaus, 1992).

The Dyadic Parent-Child Interaction Coding System-II

The Dyadic Parent-Child Interaction Coding System-II (DPICS-II; Eyberg et al., 1994) is a system used to code parent-child interactions during three 5-minute standard situations (child directed interaction, parent directed interaction, and clean up). Each phase requires increasing amounts of parental control and direction. Interactions revolve around play sessions with toys, such as blocks, clay, and drawing supplies. The DPICS-II is used to code verbal behavior (e.g. commands, praises, and criticisms), vocal behaviors (e.g. yell, laugh, whine), and physical behavior (e.g. physical positives such as hugs and physical negatives such as slaps) for parents and children. The DPICS-II yields frequency scores of each behavior throughout the 15 minute observational session.

Interrater reliability of the DPICS-II has not yet been determined, but it is thought to be similar to that of the DPICS-I. Reliability for the DPICS-I was determined by correlating the frequency of each behavior recorded by two observers during 90% of the 5-minute observation periods. Interrater reliability of parent categories in the original version was reported at .91. Interrater reliability for child categories ranged from .76-1.0 with a mean of .92. Discriminant validity studies have shown differences in the rates of occurrence of individual DPICS categories between conduct children and nonproblem children with their parents (Eyberg et al., 1994).

Procedure

Written informed consent and verbal assents were obtained from parents and children, respectively. A baseline assessment was conducted, including a review of the child welfare investigation and all prior child welfare reports, administration of self-report measures or structured interviews, and an observational coding of a structured parent-child interaction. Parent-child dyads were then randomly assigned to one of three parenting intervention conditions.

Interventions

PCIT. Participants in the PCIT group received a modified version of the standard PCIT described earlier. Individual parent-child dyad sessions were conducted in a clinic setting. Modifications were made to address issues related to the physically abusive families. During CDI, drills and role plays were used to provide added emphasis on how to identify appropriate child behaviors and how to respond with praise, a skill that was difficult for most parents participating.

Physical backups such as loss of rewards, time out in a barrier room, or a holding chair, were used to address time out refusal. In addition to standard PCIT, parents were taught to pause, self-monitor their stress levels, and relax before implementing any part of the time out procedure.

When using standard PCIT, child change is the focus. However, in this case, parent change was the clinical focus. Consequently, the age range was extended and the time out protocol was adapted for older children and a wider range of discipline strategies was utilized. In addition, during CDI, parents were taught to use more reflective listening skills as opposed to imitating the child's verbalizations as is recommended with younger children.

Following the completion of the PCIT sessions, parents and children both participated in a four-session follow up group program. The purpose of the follow up sessions was to make the PCIT intervention the same length as the 6 month community parenting group. These groups focused on issues that parents brought up and skill implementation problems that they may face. During this follow up, children also attended a support group that focused on teaching social skills.

Enhanced PCIT. Participants who received the Enhanced PCIT (EPCIT) received the PCIT interventions that the PCIT condition participants did, and services were provided by the same staff. Individualized enhanced services were added that targeted parental depression, current substance abuse, and family, marital, or domestic violence problems. Home visits were provided to EPCIT participants to help parents implement the PCIT skills at home. Cognitive

therapy and antidepressants were used to treat maternal depression at no cost to the participants. Marital and family therapy were provided to treat family problems. If services were already being provided for the family from an outside agency, the families' participation was tracked by the project staff. Service quality was not able to be measured because of the variability in services provided to each family.

Standard community group. The community group was implemented at a non-profit community agency. The parenting program was based on a group psychoeducational model, consisting of three modules, developed by the agency. The first module is a six-session orientation. Parents are introduced to the agency services and are provided with information about listening skills, how children are influenced by parenting practices, and how parents' upbringing can impact their own discipline strategies. The second module is a 12-session parenting skills group. During this module, parents learn about child development, discipline, praise, behavior management, communication strategies, stress management, and how parental problems may affect children. In addition, the special needs of parents are addressed during this module. The last module is a 12-session anger management group that is designed to help parents develop self-awareness, self-control, and compassion or empathy for others. This community group encouraged parenting practices that are similar to those taught by PCIT, however, it focused on how parenting is understood and conceptualized rather than focusing on the behaviorally defined parenting skills.

Post-treatment Data Collection

After participating in post-treatment data collection, participants received small gifts. Follow up for child maltreatment outcomes was obtained from the child welfare administrative database. All of the child welfare database matches were manually checked to confirm a positive match for post-treatment child maltreatment.

CHAPTER III

RESULTS

Factors Contributing to the Reduction of Parenting Stress

In order to determine the relative contribution of child behavior, positive parenting skills, negative parenting skills, and PCIT in the reduction of parenting stress, a simultaneous multiple regression was conducted. Change in child externalizing behavior (BASC Externalizing T score), change in positive parenting skills (Positive DPICIS score), change in negative parenting skills (Negative DPICIS score), and the presence or absence of PCIT served as predictor variables, with change in parenting stress (CAP Distress score) serving as the outcome variable.

Prior to calculating the change scores, the positive DPICIS codes were summed to form composite positive pre and post parenting skills scores. Similarly, the negative DPICIS codes were summed to form composite negative pre and post parenting skills scores. Change scores were then calculated for child externalizing behavior, positive parenting skills, negative parenting skills, and parenting stress. For all variables, the change score was calculated by subtracting the pre-treatment score from the post-treatment score. Thus, for all

but positive parenting skills, negative change scores reflected improvement over time.

Descriptive analyses were performed on the variables included in the subsequent simultaneous multiple regression analysis in order to explore the characteristics of the sample. Results of the descriptive analyses are shown in Table 1. First, it is important to note that less than half of the original 110 participants had both pre- and post- test data. For the CAP Distress scale, the means for the sample fell within the normal or non-clinical range, below the clinical cutoff score of 152. However, there was a great deal of variability among these scores. The average score decreased by almost a third. The means for the BASC Parent Externalizing subscale were also within the normal range, below the clinical cutoff of 70. These scores decreased by 10 points, which is a standard deviation when compared to the normative sample. With regard to the DPICS scores, at the onset of treatment, during a 15 minute observation, the average parent made 11 negative and 63 positive statements. By the end of treatment, that had changed to an average of 9 negative and 72 positive statements. The number of positive statements parents made increased from pre- to post- test, while the number of negative statements decreased slightly.

Simple correlations were conducted to examine the relationships between the predictor and outcome variables for the simultaneous multiple regression. Because the hypotheses for this part of the study were directional, alpha values of .10 were selected. Table 2 displays the correlations between predictor and outcome variables. Four of the nine correlations were significant. In the case of

Table 1

Means, Standard Deviations, and Change Scores for Predictor and Outcome Variables Used in the Multiple Regression

Variable Name	Pre			Post			Change		
	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>
CAP Distress	98.39	71.95	109	60.84	61.83	62	-34.92	67.43	61
BASC Parent Externalizing	62.95	17.69	110	55.85	12.23	61	-9.29	14.39	61
Total DPICS Negative	11.68	9.66	93	9.81	10.42	53	-.69	12.51	43
Total DPICS Positive	63.41	29.63	93	71.98	34.38	53	4.23	34.16	43

Table 2

Pearson Correlations Between Predictor and Outcome Variables

	CAP Distress Change	Treatment Group	BASC Externalizing Change	DPICS Negative Change
BASC Parent Externalizing Change	.30*	.05		
DPICS Negative Change	-.31*	.22	.04	
DPICS Positive Change	.006	-.40**	-.40*	-.14

Note: * $p < .05$. ** $p < .01$.

the CAP Distress change score and BASC Parent externalizing change score, there was a significant positive correlation. Parents' reported distress decreased as child externalizing behavior decreased. Similarly, as the Negative DPICS change scores decreased, so did the CAP Distress change score. Positive DPICS change scores were found to be positively correlated with treatment group assignment. Those who participated in the PCIT group were found to have a greater increase in the number of positive statements. Conversely, Positive DPICS change scores were found to decrease as BASC Parent externalizing change scores increased, suggesting that more child externalizing behaviors were associated with fewer parental positive statements.

In order to determine which factors are most highly associated with a change in parenting stress, a simultaneous multiple regression was conducted. The BASC parent externalizing change score, presence or absence of PCIT, DPICS positive change score, and DPICS negative change score served as predictor variables, and the change in parenting stress as measured by the CAP distress subscale as the outcome variable. Because the hypotheses were directional, an alpha level of .10 was utilized. Results are summarized in Table 3. The results of the analysis indicate that 20% of the variance in parenting stress was explained by all four predictors, which reached significance, ($R=.45$, $R^2=.20$, $F(4, 42) = 2.4$, $p = .07$). The central focus of the analysis involved the unique variance in parenting stress explained by each predictor variable. Semi-partial correlations were significant for two of the four predictor variables. The amount of change in child externalizing behavior and the amount of change in negative statements made

Table 3

Beta Values, Semi-Partial Correlations, and Significance Levels for Simultaneous

Multiple Regression

Variable Name	Beta	Semi-Partial Correlation	<i>P</i>
Treatment group combining PCIT and EPCIT	-.11	-.10	.50
BASC parent externalizing	.31	.30	.05
DPICS negative change	-.30	-.29	.05
DPICS positive change	.001	.001	.99

by parents were each unique predictors in the amount of change in parenting stress. The amount of change in child externalizing behavior explained 9% of the variance, and the amount of change in negative parental statements explained 8% of the variance in the amount of change in parenting stress.

Exploratory Analyses

To further explore the unexpected finding that PCIT was not a significant predictor of change in parenting stress, exploratory analyses were conducted. Descriptive information concerning group differences is presented in Table 4. With regard to the CAP Distress Scale, the average score for parents in the PCIT treatment group decreased by 32.54, while the average score for parents in the Community Group decreased by 43.70. This result was surprising, but may be do to selection bias, in that those parents who finished all of the PCIT treatment may have been higher functioning parents to start with. On average, parents in the Treatment Group made 10 more positive statements, as compared to the Community Group, who had an average of 33 fewer positive statements. In addition, results indicated that on average, parents who received PCIT training had 2 fewer negative statements compared to the Community Group, who, on average, had 6 more negative statements. Lastly, when comparing the scores on the BASC Externalizing Subscale, it was found that scores for parents in the PCIT Treatment Group decreased by nearly 10, and scores for parents in the Community Group decreased by 7. A 2 (Treatment Group) x 2 (Time) Factorial Analysis of Variance was conducted.

Table 4

Means and Standard Deviations for Predictor Variables Used in Exploratory Analyses

	Treatment Group (PCIT)		Community Group	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
CAP Distress Change	32.54	71.53	-43.70	51.23
DPICS Positive Change	10.03	20.84	-25.57	20.98
DPICS Negative Change	1.98	4.43	-5.58	5.16
BASC Externalizing Change	-9.23	14.35	-7.62	10.61

There was no significant interaction found, $F(1, 59)=.28, p=.60$. In addition, there was no main effect of Treatment Group, $F(1,59)=.10, p=.75$. However, there was a significant main effect of time, $F(1,59) =12.90, p=.001$.

Does Parenting Stress Differentiate Between Parents Who Reabuse Their Children and Those Who Do Not?

To address the second research question, an Analysis of Covariance (ANCOVA) was performed with reabuse serving as the independent variable, final parenting stress (CAP Distress score) serving as the dependent variable, and treatment group, final child externalizing behavior (BASC Externalizing T score), and final positive and negative parenting skills (DPICS scores) serving as covariates.

Descriptive analyses were performed on the variables included in the ANCOVA in order to determine characteristics of the sample. Table 5 summarizes the results of these analyses. It is important to note that the original sample of 110 participants was significantly reduced because many of the parents did not complete the final measures. However, because it was archival in nature, reabuse information was obtained for all participants.

Over a median follow up time of 850 days, 18 of the 62 parents who completed the final measures reabused their children. On average, parents who did not reabuse their children made 4 fewer negative statements and 14 more positive statements than parents who were found to reabuse. Interestingly, parents who did not reabuse appeared to score slightly higher on the final measure of parenting stress, and their children appeared to score slightly lower

Table 5

Means and Standard Deviations for Variables Used in ANCOVA, Grouped by Reabuse

Status

Variable Name	No Reabuse			Reabuse		
	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>
Final CAP Distress	62.23	62.56	44	57.44	61.63	18
Final BASC Parent Externalizing	57.00	13.06	43	53.11	9.73	18
Final total DPICS Negative	8.47	8.87	36	12.65	12.97	17
Final Total DPICS Positive	76.67	35.44	36	62.06	30.67	17

on final child externalizing behavior, than parents and children in the reabuse group, although all scores were within the non-clinical range.

An Analysis of Covariance (ANCOVA) was conducted to determine if parents who abused their children after the conclusion of treatment and those who did not differed in final parenting stress scores, holding other key variables constant. The grouping variable was reabuse. The dependent variable was final parenting stress. The treatment group (PCIT or Community Group), final child externalizing behavior (BASC externalizing score), final positive parenting skills (total positive DPICS change score), and final negative parenting skills (total negative DPICS change score) served as covariates. Because this was a directional hypothesis, an alpha value of .10 was used. Results indicated that there was no significant difference between parents who reabused their children and those who did not, in terms of final parenting stress, $F(5,47)=.63$, $p=.68$. The only covariate which was significantly different between the reabuse groups was child externalizing behavior, $F=2.95$, $p=.09$. Contrary to expectations, children who were reabused had a less severe final externalizing behaviors score ($M = 53.11$) than those who were not reabused ($M = 57$).

CHAPTER IV

DISCUSSION

Given that a great deal of research has suggested a reciprocal relationship between child behavior problems and parenting stress that is linked to physical abuse (Chan, 1994; Hastings, 2002; Mash & Johnston, 1990; Ostberg & Hagekull, 2000), studies examining this relationship and how it relates to child abuse, specifically what factors contribute to the reduction of parenting stress and the role parenting stress plays in reabuse, would serve to aide researchers in developing sound, empirically supported methods of intervention. However, as mentioned previously, little research has examined the unique contribution of parenting stress to the cycle of child abuse. Based on the current available research, it is unclear whether targeting parenting stress in and of itself is enough to break the cycle of abuse. The purpose of this study was (a) to determine the relative contributions of PCIT, child externalizing behavior, positive parenting skills, and negative parenting skills in the reduction of parenting stress and (b) to determine if the final level of parenting stress differed in the reabused versus nonreabused groups if final child behavior, final positive parenting skills, and final negative parenting skills were controlled for.

What Are the Contributions of PCIT, Changes in Child Behavior and Changes in Parenting Skills in the Reduction of Parenting Stress?

With regard to the first question, it was hypothesized that decreases in child externalizing behavior and negative parenting skills, increases in positive parenting skills, and participation in PCIT would be associated with decreases in parenting stress. Results of the simultaneous multiple regression indicated that the amount of change in negative statements made by parents and the amount of change in child externalizing behavior were each unique predictors of the amount of change in parenting stress.

The finding that change in negative, but not positive, parenting skills was related to change in parenting stress is interesting. While it makes intuitive sense that negative parenting skills, such as criticism and frequent commands, would be associated with higher levels of parenting stress, there is a lack of previous research in that area. Rather than focusing on decreasing negative parenting skills, previous research has focused on increasing positive parenting skills, such as specific praise. Contrary to what was found in this study, previous studies have consistently found that positive parenting skills foster more confidence in the parents and reduces feelings of distress in relation to their children (Borrego et al., 1999; Eisenstadt et al., 1993; Nixon, 2002; Schuhmann et. al, 1998). The null findings with regard to positive parenting skills may be due to a difference in the population used in the study. The present study used an abusive sample. With this sample, negative parenting practices may be more closely tied to parenting stress than positive parenting practices. There are

several ways of interpreting this finding. It could indicate that negative parenting skills serve as important “red flags” for high levels of parenting stress. It could also indicate that targeting either parenting stress or negative parenting skills might result in a reduction of the other variable. Additionally, it may be that targeting a third factor, such as the frequency of negative interactions with the child or child externalizing behaviors might decrease one or both variables. Although there are many potential explanations for these findings, it would be promising for future studies to continue to explore the relationship between negative parenting practices and parenting stress. It may be that targeting the negative statements made by parents may help break the negative cycle that develops between parent and child, thereby decreasing child externalizing behaviors and parenting stress, which ultimately serves to foster a more positive and nurturing relationship between parent and child.

With regard to externalizing behavior, previous research has suggested that parental distress decreases as child behaviors improve (Abidin, 1990; Eyberg & Robinson, 2002; Morgan et al., 2002). Child noncompliance and externalizing behaviors serve to facilitate and maintain the negative cycle of coercion that develops between parent and child. As pointed out by Chaffin et al. (2004) child behavior can sometimes result in parents increasing the level of coercion to the point of violence. This research supports the notion that child behavior plays a key role in the negative cycle of abuse. As mentioned previously, by targeting these negative behaviors, clinicians may be able to interrupt this cycle, thereby reducing the likelihood of reabuse.

From a clinical point of view, knowing the unique contribution of each the variables in the cycle of abuse is critical. By being educated and aware of how treating child behavior, parenting skills, parenting stress, or any combination of the three will impact the relationship between parent and child and the cycle of abuse, clinicians will be better equipped to develop effective treatment goals. Although many clinicians may choose to focus on cognitive approaches to dealing with parenting stress, such as anger management therapy, based on these results, a clinician could target improvements in the child's behavior as a way to decrease parenting stress. By improving the child's behaviors, the relationship between parent and child would be less strained, resulting in decreased levels of parenting stress. Also based on these results, a clinician may opt to focus on parental responses to their children, teaching them better and more effective ways to shape their children's negative behaviors, rather than perpetuating the negative cycle.

Contrary to what was hypothesized, it was found that treatment group was not a significant predictor in the amount of change in parenting stress. The most likely reasons for this finding are methodological. First, the PCIT treatment group had more than twice the number of participants than the Community Group. This discrepancy may have decreased the power of the analysis, consequently decreasing the ability to detect differences between groups. In addition, it may have been that the PCIT and EPCIT groups were not as similar as the researcher believed them to be. While all of the participants received the same PCIT interventions by the same staff, those who participated in the EPCIT

received additional individual services that targeted parental depression, current substance abuse, and family, marital, or domestic violence problems, as well as home services to assist in implementing PCIT at home. As a result, the sample may have been clouded by confounding variables that were not controlled for in the analyses. Other reasons involve the extension of PCIT beyond its original parameters. First, it needs to be noted that PCIT was designed to be a child treatment; however, most of the children in this study did not have pretreatment behavior problems. Second, this study included children older than those typically included in PCIT for child behavior problems, which necessitated making some adaptations to procedures across all phases of PCIT. It may be that PCIT is more ideally suited for younger children with behavior problems, which is why the findings were unexpected.

Additionally, unlike changes in negative parenting skills, it was found that changes in positive parenting skills did not uniquely contribute to the variance in changes in parenting stress. This may be due to the nature of the sample. All of the participants were referred as they entered the child welfare system for confirmed physical abuse. Research suggests that abusive parents have a more negative perspective of their children than parents who are not abusive. For example, they often have inappropriate developmental expectations for behavior, which is then translated into increased criticism of their children (Milner, 1986). It is possible that the decrease in negative statements, rather than an increase in positive statements, is a stronger reflection both of more realistic expectations and decreased parenting stress.

In summation, results showed that the amount of change in child externalizing behavior and the amount of change in negative statements made by parents were each unique predictors in the amount of change in parenting stress. As mentioned previously, it was important to investigate this question so as to educate professionals on how each variable serves to maintain the cycle of abuse. By making clinicians aware of this information, they will be better equipped to provide effective treatment that will ultimately serve to reduce the likelihood of reabuse.

Do Parents Who Reabuse Their Children Have Higher Levels of Parenting Stress Than Those Who Do Not?

This study also examined the unique role of parenting stress in the cycle of abuse and in the prediction of later abuse. It was hypothesized that parents who reabused their children would have had higher levels of parenting stress at the conclusion of the study than those who did not. Results of the ANCOVA indicated that there was no significant difference between parents who reabused their children and those who did not, in terms of final parenting stress.

These results were surprising and do not support previous research that has repeatedly found that physically abusive parents have more strained relationships with their children (Chan, 1994; Webster-Stratton, 1988); however, there are several possible explanations. Attrition and unequal cell sizes served to severely limit the power of these analyses, thereby decreasing our ability to detect differences between groups. The sample size decreased from 110 participants to only 44 parents in the non-reabuse group and 18 parents in the

reabuse group at the end of treatment. It is also possible that the parents who chose to volunteer for this project, and to participate for the entire course of treatment were better functioning parents, who had lower levels of parenting stress to start with. This may have restricted the range of parenting stress which would normally be present in an abusive population, making it difficult to detect group differences.

One of the covariates for the analysis, child externalizing behavior was found to be a significant predictor of reabuse. However, this finding was unexpected, in that children with fewer behavior problems at the end of treatment were more likely to be reabused. It is important to remember that the children included in this study did not have significant pre-treatment behavior problems, in that the mean Externalizing behavior scores were well within the non-clinical range. It would be important not to generalize this finding to the general population of abusive parents, since this group of parents and children appears to be better functioning.

In summary, the results of this analysis do not support the hypothesis that parents who reabuse their children would have higher levels of parenting stress at the end of treatment. However, it is possible that this finding is an artifact of selection bias, participant attrition, and unequal cell sizes, which suggests the need to continue to examine the role of parenting stress as a predictor of future abuse.

Limitations of the Present Study

While this study did present some interesting and valuable findings, there were several limitations that need to be considered. One of the major limitations involved selection bias and attrition. Abusive parents who volunteered to participate in this study may be higher functioning than the general population of abusive parents; thus, the results may not be as generalizable. In addition, because the number of participants decreased from 110 to 53 between the time of pre and post testing, we may not have gotten an accurate picture of the contributions of each variable in the prediction of parenting stress. While we were able to identify two factors that make unique contributions to parenting stress, results suggested that positive parenting skills did not make a significant contribution. It remains unclear whether this was due to limited power in the analysis, or if there truly is no significant effect of positive parenting skills. Furthermore, attrition and unequal cell sizes may have served to limit the power of the ANCOVA examining the prediction of reabuse. As previously discussed, it may be that only the better functioning parents remained in the study, further restricting the range of parenting stress change scores. In addition, there was a relatively large difference in cell sizes between parents who reabused and did not reabuse their children, which may also have impacted statistical power.

Another limitation of this study was the nature of the data set. Because this study employed an archival data set, the researcher had limited access to the method and procedure of the original study. First of all, it was unclear how participants were matched prior to starting treatment, and why participants

dropped out during treatment. The dataset had not been officially prepared for use at the time we conducted the analyses, thus limited information was available from the managers of the database. In addition, attempts to contact the original authors for additional information provided limited information. Another limitation that came as a result of using an archival data set was that the researcher had to use the Distress scale of the CAP as a way to measure parenting stress, although it has not been validated for that purpose. Results may have been more valid had the researcher used a measure of parenting stress that was validated specifically for that purpose, such as the Parenting Stress Index.

As explained previously, another potential limitation lies in the statistical design used for this study. Because there may have been significant differences between the PCIT and EPCIT groups, combining them may have confounded the results. Lastly, the unequal treatment group size served as a significant limitation in detecting differences in parenting stress and reabuse due to PCIT. At the onset of treatment, the PCIT/EPCIT group had a total of 75 participants, while the community group only had 35. This unequal treatment group size limits the statistical power of the analysis, thus decreasing our ability to detect differences between groups

Recommendations for Future Research

Results of this study have important implications that need to be researched further. Specifically, there needs to be a more thorough investigation of parenting stress and how it relates to reabuse.

Because this study was archival in nature, it was not originally designed to examine the role of parenting stress in the prediction of future abuse. Including better validated measures of parenting stress would be a critical first step in examining this issue further. It would also be interesting to explore the relationship of parenting stress and reabuse in a study that was designed to look at stress as a specific point of intervention. For example, parents could be matched on initial levels of child behavior problems and parenting skills, but placed into different groups based on initial levels of parenting stress, then followed over time to determine if parenting stress plays a role in reabuse. In a different study, parents could be matched on the above variables, then assigned to two or more therapeutic approaches to reduce parenting stress (e.g., PCIT v. cognitive therapy) to determine if either treatment approach is more effective in the reduction of parenting stress and reabuse.

Designing a study which involves parents who are more representative of the general population of abusive parents, and which attempts to reduce attrition would be a great contribution to the literature. Multiple site studies which offers incentive for involvement may help address the concern over generalizability. Some suggestions to address the problem of attrition would be to start with a larger sample size that prepares for the problem of attrition and will remain large enough after attrition to maintain power. Alternatively, researchers could offer an incentive for completing therapy, such as random raffles for small prizes. In addition, it is important to keep the population of the sample in mind when designing the study. It is particularly important to make sure that therapy location

is easily accessible and to take into consideration potential scheduling conflicts by offering meals and childcare for any additional children not participating in treatment.

Exploring the role of positive statements in the prediction of reabuse is also an area that needs to be investigated further. As mentioned previously, attrition served as a major limitation in this study. It would be beneficial to replicate this study as a way to further investigate the null results found in this study.

Conclusions

These results have significant potential implications for clinicians and researchers working with abusive parent-child dyads. When considering the negative cycle which often develops in these parent-child relationships, child behavior problems turned out to be a key factor in both research hypotheses. Perhaps targeting these negative behaviors may be the most effective means to intervening and breaking this negative cycle of abuse that develops between parent and child. This finding underscores previous research indicating that child behavior, combined with parenting stress and parenting skills is a critical component involved in the coercive cycle of abuse.

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