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Parent-Child Interaction Therapy: Application to maltreating parent-child dyads

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Abstract

Objective: Parent-Child Interaction Training (PCIT), which uses a social learning framework, is a dyadic intervention that is designed to alter specific patterns of interaction found in parent-child relationships. Previous research suggests that maladaptive and high-risk characteristics found in maltreating parent-child dyads may be responsive to PCIT. The primary focus of this study is to examine the effectiveness of PCIT with maltreating parent-child dyads.

Methodology: This study describes the effectiveness of PCIT with 136 biological parent-child dyads in which 66.9% ($N=91$) of the children had been maltreated. Of the 91 maltreated children, 64.8% ($N=59$) of the parents had maltreated their children, and were thus considered to be at high risk of repeating the abuse.

Results: Primary outcomes of this study show the following: (1) a decrease in child behavior problems, (2) a decrease in parental stress, and (3) a decrease in abuse risk from pre- to post-treatment for dyads with and without a history of maltreatment.

Conclusions: Our results add to the body of research supporting PCIT as a promising intervention and as a means to aid both children and parents in high-risk families for maltreatment.

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Keywords: Child maltreatment; Parent-Child interaction; Therapy; Treatment outcomes

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Introduction

Child maltreatment by parents continues to be a major social problem in the United States. Recent official reports of child maltreatment indicate a victimization rate of 12.4 per 1000 (U.S. Department of Health and Human Services, 2005). In June 1992, the National Institute of Mental Health held a “National Workgroup on Violence” to develop a research agenda for the study of interventions for violence and its consequences (National Academy of Sciences, 1993). This workgroup identified the development of treatments for maltreated children as a high priority. This study investigates the usefulness of Parent-Child Interaction Therapy (PCIT) for training maltreating parent-child dyads in an effort to reduce the risk of further abuse.

Background

Empirical literature indicates that abusive parents engage in more negative interactions (Bousha & Twentyman, 1984) and fewer positive interactions with their children than non-abusive parents (Allesandri, 1992; Bousha & Twentyman, 1984). Wolfe (1987) noted that “it appears to be the relative absence of positive interactions that sets members of abusive families apart from matched, non-abusive controls rather than the dramatic display of open conflict and aggression” (p. 77). Milner and Chilamkurti (1991) provided support for this observation, finding that relatively low rates of positive interactions (e.g., cohesion, expressiveness) appeared to characterize abusive families more accurately than observed differences in negative interactions. For these reasons, a popular approach to the treatment of abusive families has been parent-training interventions (Dore & Lee, 1999). By training parents, it is possible to enhance abusive parents’ functioning, reduce negative parenting, and increase the numbers of positive interactions (Milner, 2000), resulting in better outcomes for children. Also, this format makes it possible to educate parents about appropriate developmental expectations (Fox, Fox, & Anderson, 1991), child management strategies (Azar, 1989), and increase parents’ self-awareness (Thomas, 1996).

Children also contribute to abusive parent-child dyadic interactions. Maltreated children have high rates of physical aggression, noncompliance, and antisocial behaviors (see Cicchetti & Toth, 2000; Kolko, 1992 for reviews). Additionally, these children exhibit an array of problem social behaviors, including poor emotional regulation, distractibility, negative affect, and a resistance to following directions (e.g., Rogosch, Cicchetti, & Aber, 1995; Shields & Cicchetti, 1998). The seriousness of abused children’s behavior problems prompted Kolko (1996a) to propose including the children as participants in any treatment targeting problems of abuse in the family. For example, individual cognitive behavioral therapy for both the parent and the child has been found to reduce parent and child problems (e.g., Kolko, 1996a). Family therapy and family-centered treatments have also been used to treat problems in abusive family systems, pointing to the effectiveness of including both the parent and child in treatment.

The argument for using PCIT with children who have been maltreated is founded on a family systems perspective, which supports the view that problem behaviors in children are outward manifestations of dysfunction in the parent-child relationship (e.g., Cerezo & D’Ocon, 1999; Patterson, 1976). In an effort to deconstruct this process, Patterson (1982) described a ‘coercion hypothesis’ to account for the development and maintenance of deviant behaviors in the child and the disrupted parent-child relationship. According to this hypothesis, parents and children establish a pattern of interaction in which parents escalate their disciplinary strategies over time to include harsh and abusive actions (e.g., yelling, threatening, spanking, hitting) to keep pace with their children’s similarly escalating aversive responses (e.g.,

back-talk and sassing, swearing, hitting, defiance). Urquiza and McNeil (1996) extend this hypothesis to include physically abusive parent-child dyads, stating that participation in hostile and coercive interactions with their children may lead some parents to engage in physical aggression as a means to get their children to comply with a command. If parents' physical abuse results in their children's compliance, then their abusive behavior is reinforced, and thus has a greater likelihood of being re-enacted in future parent-child conflicts (Cerezo, 1997). Over time, if this abusive interaction style becomes stable, then both parent and child "co-regulate" the other in their relationship (Fogel, 1993; defined co-regulation as "a social process by which individuals dynamically alter their actions with respect to the ongoing and anticipated actions of their partners," p. 34). Hence, we argue that the abusive parent-child relationship will be resistant to change, and to effect change will require more than parents' and children's understanding of the mechanism of violence. Parents' and children's habitual behaviors that serve to trigger negative behavior in the other must be eradicated and replaced by neutral and positive behaviors. To accomplish this, the interaction must be the focus of treatment. In PCIT, therapists coach caregivers remotely, teaching them to interact with their children in ways that support a more positive relationship.

Parent-Child Interaction Therapy

Parent-Child Interaction Therapy (PCIT) is an intervention founded on social learning principles. PCIT is designed for children between 2 and 7 years of age who have externalizing disorders (Eyberg & Robinson, 1983; Hembree-Kigin & McNeil, 1995). The underlying model of change is similar to that of a parent-training program, that is, that modifying the way parents interact with their children diminishes child behavior problems, which in turn promotes more positive parenting (Chaffin et al., 2004). However, PCIT is unique in that it incorporates both parent and child within the treatment session, and uses live and individualized therapist coaching to change aspects of the interaction that cause dysfunction in the parent-child relationship.

PCIT is conducted in two phases. The first phase focuses on enhancing the parent-child relationship (often described as Child-Directed Interaction (CDI)), and the second focuses on improving child compliance (often described as Parent-Directed Interaction (PDI)). Both phases of treatment begin with an hour of didactic training, followed by a therapist's coaching parents while they play with their children. The coaching is conducted from an observation room via a "bug-in-the-ear" receiver that the parent wears. Parents are taught and practice specific skills of communication and behavior management with their children. In CDI (typically 7–10 sessions), the primary goal is to create or strengthen a positive and mutually rewarding relationship between parents and their children by modifying the way parents interact with their children. Parents are taught to follow their children's lead in play by describing their activities and reflecting their appropriate verbalizations. They are also taught to praise their children's positive behavior, telling them specifically what is laudable about their actions, products or attributes. By the end of CDI, parents generally have shifted from rarely attending to their children's positive behavior to frequently and consistently praising appropriate child behavior. Also, they shift from using more controlling methods of getting their children to engage them in play (e.g., questions, commands) and begin reflecting their children's speech, and describing their play in a way that conveys their non-controlling interest in the child's activity. During this time, parents learn to shape their children's behavior by using "selective attention." By using this strategy, parents signal their disapproval of their children's inappropriate behavior by withdrawing their atten-

tion. Parents let the children know what behavior they want to see by telling children that when they are behaving appropriately, they will regain their parents' attention (e.g., "When Joshua's bottom is in the chair, then I'll be able to play with him"). When the children behave appropriately again, they are rewarded with their parents' attention and praise. Mastering selective attention provides parents a foundation for obtaining compliance. It teaches parents patience (it is difficult to ignore annoying behaviors), and that maintaining a positive context for play may not require high levels of parental discipline.

In the second phase, PDI (typically 7–10 sessions following CDI), the primary goal is to teach effective parenting skills for use in managing children's behavior. In PDI, therapists maintain the focus of parents' attention to their children's positive behaviors while training them to give clear, direct commands. Once parents master giving effective commands, they learn to provide praise for compliance, and strategies for dealing with noncompliance. Consistent with child welfare regulations, the time-out procedure used at this clinic does not use a spank or any physical restraint. Instead, parents are taught to give a command, count to five, give a two-choice warning (comply vs. time-out), followed by another count to five, thereby giving the child a chance to comply before receiving the time out. If a child refuses to comply with a time-out (e.g., gets off the chair), parents are taught a strategy to provide children an incentive to comply with the time-out (e.g., removal of privileges, time-out room), and finally to gain compliance (and to follow through). Parents are taught to always praise the child's ultimate compliance, even if it takes a long time to obtain. By the end of PDI, the process of giving commands and gaining compliance are predictable and safe for both the parents and children (Eyberg, 1988). At this time in the treatment process, parents are generally able to obtain compliance without giving a time-out. But if they need to give a time-out, it is a comfortable and well-practiced process for which the parent has acquired mastery (see Hembree-Kigin & McNeil, 1995, for a full description of the PCIT program).

There have been numerous studies demonstrating the efficacy of PCIT in reducing child behavior problems (e.g., Eisenstadt, Eyberg, McNeil, Newcomb, & Funderburk, 1993; Eyberg, 1988; Eyberg & Robinson, 1982; Eyberg et al., 2001), and maintaining these positive effects up to 6 years post-treatment (Hood & Eyberg, 2003). Treatment effects also have been shown to generalize to school settings (Funderburk et al., 1998; McNeil, Eyberg, Eisenstadt, Newcomb, & Funderburk, 1991), and to untreated siblings (Brestan, Eyberg, Boggs, & Algina, 1997; Eyberg & Robinson, 1982). In addition, PCIT also has been shown to be as effective for foster parents as biological parents (Timmer, Urquiza, & Zebell, *in press*). Given the documented effectiveness of PCIT in helping non-maltreating parents manage their behavior-problem children, we expect that it also will be effective in treating parent-child dyads, even when the children have a history of maltreatment.

The purpose of this study is to determine the effectiveness of PCIT in reducing maltreated children's negative behaviors when they are in treatment with their maltreating or non-maltreating biological parents. Based on the empirical evidence supporting the efficacy of PCIT in treating conduct problems of young children, we expect to observe significant decreases in maltreated children's behavior problems from pre- to post-treatment. However, it is possible that the trauma of the abuse experience, or that maltreating parents' problems and the well-established negative qualities of maltreating parent-child dyads will reduce the effectiveness of PCIT. To determine the effectiveness of PCIT in this high-risk population, we will compare pre- and post-treatment measures of functioning in maltreated and non-maltreated dyads. To evaluate the further effects of parents' maltreatment status on PCIT's effectiveness, we will compare pre- and post-treatment measures of functioning in the group of maltreated children participating with maltreating and non-maltreating parents.

Method

Sample

Selection. Sample selection and data analysis were conducted in two phases. The first phase of sample selection was designed to allow us to determine whether dyads that completed treatment were systematically different from those who were referred and began treatment. Included in this phase were biological parent-child dyads referred to a university-based clinic primarily serving children with a history of maltreatment between November 1994 and May 2004. All dyads were assessed by clinical interview, and attended at least one PCIT session. Dyads who did not return after the initial clinical interview were excluded ($N=50$). Also excluded were dyads for whom the therapist altered PCIT in some substantial way (e.g., engaged in play therapy with the child for some part of the session, coached PDI skills before CDI skills; $N=5$). Therapists and the PCIT clinical coordinator identified non-standard PCIT cases.

Children were primarily referred to treatment by their CPS social worker, were 2–8 years old, and had externalizing behavior problems. When a child had more than one caregiver in treatment, one was designated as “primary.” This caregiver was selected for inclusion to insure independence of measures.

The resulting sample for the first phase of analyses consisted of 307 dyads: 193 parent-child dyads with a history of maltreatment, and 114 parent-child dyads in which there is no record of maltreatment. Two-thirds of the children (67.1%) in the maltreatment group had been physically abused, 50% had been neglected, and 10% had been sexually abused. We suspect that the co-occurrence of different types of maltreatment in the “abuse” group may be higher than the recorded rates reflect. While 71% of the parents in the Phase I sample had perpetrated physical abuse or neglect, none had perpetrated sexual abuse. The children ranged in age from 2.0 to 7.96 years (mean age = 4.58 years). Nearly two-thirds (63.8%) were under 5 years of age. Approximately two-thirds of the children were male (67.1%), and approximately 89% of the adults were female. Slightly less than half of the children were White/non-Hispanic (42.3%), 20% of the children were African American, and 17% of children were Latinos/as.

The sample for the second phase of the study consisted of 136 dyads (of the initial 307 dyads) that completed PCIT and had completed at least one standardized measure of children’s functioning and one measure of parents’ functioning. The resulting sample consisted of 91 parent-child dyads with a history of maltreatment, and 45 dyads with no maltreatment history.

Procedures

The IRB at UC Davis Children’s Hospital approved the written consent forms and research protocol for the current study. During the intake session at the clinic, parents were given a battery of standardized measures and a short demographic questionnaire as part of a clinical assessment to determine the medical necessity of treatment, treatment goals, and objectives. When dyads were deemed suitable for PCIT, the therapist conducting the intake interview asked parents if they would like to participate in a research project investigating the effectiveness of PCIT, and if so gave their informed consent. Two parents refused to participate in the research project.

Because PCIT is an assessment-based protocol, parents were required to complete their assessments of their children’s behavior problems before beginning treatment. These same standardized measures were given to each caregiver in treatment during their last treatment session. The packet was either mailed to the clinic or collected by a home visitor when completed. Dyads were considered to have completed treatment

after the parents were able to meet mastery criteria for the CDI portion of PCIT, obtain compliance with commands from their children, and successfully negotiate PDI. Additionally, dyads were not graduated unless children showed improved emotional regulation. For example, if a child threw tantrums regularly, they were not graduated, even if parents were technically able to perform the necessary skills. The average number of treatment sessions to treatment completion was 15.4 ($SD = 6.07$). This number did not vary by children's maltreatment status.

Measures

Child Abuse Potential Inventory (CAPI). The CAPI (Milner, 1986) is a 160-item inventory that features an abuse potential scale and several validity scales. The abuse potential scale is a 77-item measure that combines six subscales: rigidity, distress, unhappiness, problems with child, family, and others. Items are rated on a dichotomous scale of either agree or disagree. The scales are normed and validated by a multitude of studies (see Milner, 1986). In this study, we use the abuse and rigidity subscales of the CAPI. The abuse scale is a measure of abuse potential, which has been found to discriminate between abusive and non-abusive adults (Milner & Wimberly, 1980). The rigidity scale is an indicator of parents' beliefs about the rigidity and traditional nature of parents' and children's roles in the family.

Child Behavior Checklist (CBCL). The CBCL is a standardized instrument that lists approximately 100 problem behaviors that children might display (version for younger children contains 100 items, for older children, 112 items). These measures ask parents or regular caregivers to report on the frequency of specific problem behaviors in their children on a three-point scale (0 = never to 2 = often). Separate norms are provided for boys and girls in three age groups. Normative data were derived from a large sociologically diverse population of both non-referred and clinic-referred children and their parents. We use the CBCL's two broadband scales (Internalizing and Externalizing behaviors), and the total score as a measure of the severity of children's symptoms. There are two versions of the CBCL: one is designed for young children (2–3 years old, Achenbach, 1994; 1½–5 years, Achenbach & Rescorla, 2000) and one for middle childhood and teen years (4–18 years, Achenbach, 1994; 6–18 years, Achenbach, 2001). Therapists transitioned from the old to the new versions of the CBCL in 2003, and were careful to administer the same version at both assessment points, so that a dyad's pre- to post-treatment change would be measured by the same version. The old and new versions of the broadband scales of the CBCL are highly correlated (Achenbach, 2001; Achenbach & Rescorla, 2000), and we do not differentiate scores from the two versions.

Eyberg Child Behavior Inventory (ECBI). The ECBI is a 36-item scale that measures specific behavior problems exhibited by children aged 2–16 years. In contrast to the CBCL, the ECBI lists more commonly observed child behavior problems (e.g., dawdling, arguing or fighting with siblings, sassiness). Caregivers indicate the frequency of certain behaviors along a seven-point scale (1 = never to 7 = all the time) and whether they are considered to be problems (1 = Yes, 0 = No). Scores are summed to obtain an Intensity score and a Problem score (Eyberg & Robinson, 1983; Eyberg & Ross, 1978).

Parenting Stress Inventory (PSI). The PSI (Abidin, 1995) was designed to identify parent-child dyads that are experiencing stress and are at risk for developing dysfunctional parenting and child behavior problems. The PSI contains 120 items rated on a five-point scale (1 = Strongly Disagree to 5 = Strongly

Agree), grouped into 13 subscales and four scales. We used two of these scales: stress in the Child Domain (combining parents' reports of children's adaptability, acceptability, demandingness, mood, distractibility, and responsiveness to parent), and stress in the Parent Domain (combining reports of their depression, role restriction, sense of parental competence, social isolation, health, and relationship with spouse).

Symptom Checklist 90-R (SCL-90-R). The SCL-90-R (Derogatis & Lazarus, 1994) is a 90-item self-report symptom inventory designed to assess current presence of psychological symptom patterns. Each item is a brief description of a psychological symptom and is rated on a five-point scale (0 = no discomfort to 4 = extreme discomfort). The SCL-90-R has nine symptom subscales: somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. As recommended by its authors, we use the Global Severity Index, a measure of overall symptom severity, as an indicator of respondents' psychological functioning (Derogatis & Lazarus, 1994). *t* scores were calculated using the norms for adult non-patients.

Maltreatment history. Information about children's history of physical abuse was obtained from therapists' reports, social workers' reports, and by research staff's review of any available court records. When there was an indication that a child might have been maltreated, even by an unsubstantiated allegation, we coded "suspected maltreatment." For example, if a mother reported to the therapist that her boyfriend hit the child when he got angry with him, we recorded this as suspected abuse, although the incident might not have been reported to Child Protective Services. Children were classified as either having a suspected or documented history of maltreatment, or having no history of maltreatment. For purposes of this study, children with suspected and documented histories of maltreatment were both classified as having a history of maltreatment.

Data analysis

The first step in analyzing the effectiveness of PCIT was to determine whether maltreating parent-child dyads completed treatment at the same rate as non-maltreating parent-child dyads. This type of analysis is important in a study with a pre-post design because the population of treatment completers is likely to vary from those who terminate treatment early. Since referral to treatment is non-random (e.g., PCIT referrals depend on the child's age, symptoms, and life circumstances), so early treatment termination is likely to be non-random. Parent-child dyads who completed treatment might have been predisposed to be successful. To examine the predictors of attrition and their variation by maltreatment status, we performed a binary logistic regression predicting early treatment termination status (complete vs. early terminate) that included as independent predictors children's maltreatment status, whether parents were perpetrators of maltreatment, child's ethnicity, sex and age, rigidity of parenting beliefs (measured by the CAPI rigidity subscale), parent symptom levels (measured by the Global Severity Index of the SCL-90-R), child behavior problems (measured by the Total scale of the CBCL), and significant interaction terms between maltreatment status and psychological functioning as predictors. In this analysis, we chose also to model missing data because when parents refused or neglected to complete standardized measures, they may have been indicating their commitment or resistance to treatment. For example, caregivers were significantly more likely to have missing data on the measure of parent psychological symptoms (21.2% missing) than on the measure of child behavior problems (9.8% missing). Because missing data was not likely to have been random, and because it was likely to provide valuable information about

parents' attitudes, we took missing data into account when modeling attrition from treatment. To do this, we assigned mean values of the variables to individuals with missing data, and created dummy variables indicating that data were missing versus not missing on measures of psychological functioning (NICHD Early Child Care Research Network & Duncan, 2003). This strategy allowed us to test the importance of missing data on attrition from treatment.

In phase II, we compared the effectiveness of PCIT for two groups of parent-child dyads: maltreated and non-maltreated children with their parents. In these analyses, we performed 2×2 repeated measures analyses of variance with maltreatment status as the between-subjects factor and assessment point (pre- vs. post-treatment) as the within-subjects factor (i.e., the repeated measure). A third set of analyses was performed to determine whether there was any effect on treatment effectiveness of participating in PCIT with an offending versus a non-offending parent. We limited the sample in these analyses to maltreated children, and reran the repeated measures analyses of variance, using parent perpetrator status as the between subjects factor, and assessment point as the within-subjects factor. There were some variations in the sample size of each analysis resulting from missing data.

Power of analyses. With an alpha of .05, an N of approximately 80–100 in our analyses of treatment effects was sufficient to detect medium effect sizes. We presented η^2 (eta-squared), a statistic reflecting the proportion of variance accounted for by membership in the designated groups (i.e., the between-subjects factor). Eta-squared is roughly the square of “ f ,” the statistic measuring effect size in analyses of variance. According to Cohen (1988), a small effect size for an analysis of variance is $f = .10$ ($\eta^2 = .01$), medium effect size is $f = .25$ ($\eta^2 = .06$), and a large effect size is $f = .40$ ($\eta^2 = .16$). We also presented the observed power of the analysis, or the likelihood that the result can be replicated in other studies. For example, when the power of an analysis equals .80, it is likely to be replicated in 80% of future studies, and is said to be sufficiently strong (Cohen, 1988).

Results

Phase I analyses

Table 1 shows the results of the analyses for determining predictors of early termination from treatment. Coefficients presented in Table 1 are odds ratios. They reflect the degree to which the odds of an event occurring (i.e., dropping out of treatment) are increased by each unit increase in the predictor variable. For example, in Model 1, when only demographic variables are entered into the model, African American children were twice as likely as Caucasian children to end treatment early. When measures of psychological functioning were added in Model 2, higher levels of psychological symptoms in parents and not completing the measure of parents' psychological functioning (SCL-90R) predicted early treatment termination. Children's severity of behavior problems did not significantly predict attrition. However, when interaction terms between children's maltreatment history and measures of psychological functioning were added in Model 3, we found that the likelihood that children with severe behavior problems would stay in treatment varied by their history of maltreatment. The more behavior problems maltreated children had, the more likely they were to terminate treatment early. A further examination of the observed frequencies of treatment termination status of maltreated and non-maltreated children with clinically significant (i.e., t scores > 64 ; Achenbach, 1994) versus normal levels of behavior problems

Table 1

Results of logistic regressions of early treatment termination on demographic variables and measures of parent and child psychological functioning

<i>N</i> = 307	Model 1 (odds ratios)	Model 2 (odds ratios)	Model 3 (odds ratios)
Child maltreatment history (No)	.60	.61	.02**
Parent perpetrator (No)	1.62	1.61	1.61
Child ethnicity (Caucasian)			
African American	2.11*	2.08*	2.27*
Latino/a	.66	.59	.60
Other	2.86 ⁺	2.78	2.89
Child age (<5 years)	1.05	1.03	1.00
Child gender (male)	.83	.91	.89
Global Severity Index (<i>t</i> scores)		1.05***	1.05**
Missing GSI		1.86 ⁺	1.86 ⁺
CBCL Total score		1.01	.97
Missing CBCL Total score		.79	.78
Child abuse history × CBCL Total score			1.06**
-2 LL	409.18	386.66	379.11
Step chi square	16.15*	22.52***	7.00**
Model chi square	16.15*	38.67***	45.67***

⁺ *p* < .10.

* *p* < .05.

** *p* < .10.

*** *p* < .001.

showed that maltreated children were more likely to drop out of treatment if their parents had reported clinically significant levels of behavior problems pre-treatment (percent drop out: normal range, 40.7%; clinically significant, 63.5%). In contrast, the child's behavior problems did not appear related to non-maltreating dyads' attrition (percent drop out: normal range, 56.6%; clinically significant, 51.2%). The results of the analyses suggest that the dyads remaining in treatment tended to report fewer psychological symptoms, and among maltreated children, have fewer behavior problems.

Phase II analyses: effects of treatment

Table 2 shows the demographic differences between dyads in which the children have been maltreated and those with no maltreatment history. Findings show that maltreated children were more likely to be older, female, and African American than non-maltreated children, and their mothers were less well educated than mothers of non-maltreated children. Results of these analyses suggested that it would be important to control for children's sex, age and ethnicity, and mothers' educational attainment in subsequent analyses. In Table 2, we also show demographic differences between maltreated children who are in treatment with their offending and non-offending parent. Offending parents were more likely to be female, and younger than non-offending parents.

In order to test whether parents' reports varied by children's maltreatment history, and whether children's maltreatment history related to changes in children's behavior problems from pre- to post-treatment, we performed 2 × 2 repeated measures multivariate analyses of variance on the outcome variables, where

Table 2
Descriptive statistics by child physical abuse history and parent abusiveness

	Child maltreated		Parent perpetrator ^a	
	No (<i>N</i> = 45)	Yes (<i>N</i> = 91)	No (<i>N</i> = 32)	Yes (<i>N</i> = 59)
Sex of child (% male)	75.6	59.3 ⁺	59.4	59.3 ns
Age of child (years)	4.0	4.8 [*]	4.6	4.9 ns
% children >5 years old	15.6	40.7	37.5	42.4
Child's ethnicity				
% Caucasian	66.7	61.5+	71.9	55.9 ns
% African American	4.4	16.5	9.4	20.3
% Latino/a	20.2	21.9	15.6	23.7
% Other	6.7	1.1	3.1	.0
Age of adult (years)	29.1	29.3 ns	31.7	28.0*
Sex of adult (% female)	84.4	87.9	78.1	93.2*
Mother's educational attainment				
% High school grad or less	52.4	81.0 ^{***}	83.3	79.6 ns
Caregiver marital status				
% Married	38.1	26.7 ns	21.9	29.3
Number of coaching sessions	15.2	15.9 ns	13.9	17.0 ⁺
Parent in treatment perpetrator %	.0	64.8	.0	100.0

^a Only maltreated children are included in these analyses (*N* = 91).

⁺ $p < .10$.

^{*} $p < .05$.

^{***} $p < .001$.

the repeated measure was the assessment point (pre- vs. post-treatment), and the between-group measure was children's history of maltreatment (yes vs. no). These analyses also controlled for child's age, sex, ethnicity (dummy variable noting whether child was African American vs. nonAfrican American), and mother's educational attainment.

We first examined the significance of pre- to post-treatment change on two different measures of child behavior problems, the CBCL and the ECBI. Table 3 shows the mean levels of child behavior problems pre- and post-treatment for these four groups. Results of analyses of the ECBI scores showed significant treatment effects [overall $F(1, 94) = 50.05$, $p < .001$, $\eta^2 = .53$, power = 1.00]. However, we did not detect any variation in these treatment effects by children's maltreatment history, though caregivers of children with a history of maltreatment tended to rate them as having lower frequencies and numbers of problem behaviors. Results of analyses of CBCL Internalizing, Externalizing, and Total problem score scales also showed significant treatment effects [overall $F(1, 100) = 22.30$, $p < .001$, $\eta^2 = .42$, power = 1.00]. In contrast to the results from analyses of the ECBI, analyses of CBCL scales showed a statistically significant treatment by maltreatment history interaction [overall $F(1, 100) = 3.63$, $p < .05$, $\eta^2 = .10$, power = .78]. An examination of the univariate F statistics showed that the interaction effects were limited to the externalizing scale [$F(1, 100) = 10.47$, $p < .01$, $\eta^2 = .10$, power = .89], and the total score [$F(1, 100) = 4.66$, $p < .05$, $\eta^2 = .05$, power = .57]. Parents of maltreated children reported fewer problems pre-treatment than parents of non-maltreated children, but reported similar

Table 3
Mean levels of child behavior problems pre- and post-treatment by parental abuse risk and children's history of abuse

	Child maltreated			Parent perpetrator of abuse ^a		
	No	Yes	Effects	No	Yes	Effects
ECBI intensity (raw scores)	<i>N</i> = 28	<i>N</i> = 67		<i>N</i> = 19	<i>N</i> = 48	
Pre-treatment	144.3	123.5	Tx ^{***} , M ⁺	130.0	129.0	Tx ^{***} , Pr ⁺
Post-treatment	98.6	92.7		95.5	77.7	
ECBI problem (raw scores)	<i>N</i> = 28	<i>N</i> = 67		<i>N</i> = 19	<i>N</i> = 48	
Pre-treatment	16.9	14.7	Tx ^{***} , M ⁺	15.5	16.8	Tx ^{***}
Post-treatment	7.0	4.0		6.9	2.9	
CBCL Internalizing (<i>t</i> scores)	<i>N</i> = 28	<i>N</i> = 73		<i>N</i> = 23	<i>N</i> = 50	
Pre-treatment	58.0	53.4	Tx ^{***}	51.0	54.5	Tx ^{***}
Post-treatment	46.1	45.1		44.8	45.3	
CBCL Externalizing (<i>t</i> scores)	<i>N</i> = 28	<i>N</i> = 73		<i>N</i> = 23	<i>N</i> = 50	
Pre-treatment	65.0	58.3	Tx ^{***}	57.6	58.6	Tx ^{***}
Post-treatment	48.4	50.1	Tx × M ^{**}	50.6	49.9	
CBCL Total score (<i>t</i> scores)	<i>N</i> = 28	<i>N</i> = 73		<i>N</i> = 23	<i>N</i> = 50	
Pre-treatment	63.7	56.7	Tx ^{***}	56.4	56.9	Tx ^{***}
Post-treatment	49.6	48.4	Tx × M [*]	48.7	48.3	

Tx = treatment effects, M = maltreatment history, Pr = parent perpetrator.

^a Only maltreated children are included in these analyses (*N* = 91).

⁺ *p* < .10.

^{*} *p* < .05.

^{**} *p* < .01.

^{***} *p* < .001.

levels of problems post-treatment. In this way, children with a history of maltreatment showed smaller reductions in externalizing and total behavior problems than did children with no maltreatment history.

Results of analyses of the effects of being in treatment with the offending versus non-offending parent on maltreated children's functioning are also presented in Table 3. Analyses revealed significant treatment effects for both groups [overall *F* statistics: ECBI-*F* (1, 66) = 49.2, *p* < .000, $\eta^2 = .61$, power = 1.0; CBCL-*F* (1, 72) = 17.1, *p* < .000, $\eta^2 = .43$, power = 1.0]. No variations in treatment effects by offending parent status were noted.

We next tested whether children's maltreatment history related to changes in parental distress from pre- to post-treatment. Table 4 presents the mean scores on the Child and Parent Domain scales of the PSI, the Global Severity Index of the SCL-90-R, and the Abuse Potential and Rigidity scales of the CAPI. A repeated measures, multivariate analyses of variance of the PSI Child and Parent Domain scales, with assessment point as the repeated measure, showed a significant reductions in stress from pre- to post-treatment in the Parent and Child Domains [overall *F* (1, 71) = 12.56, *p* < .001, $\eta^2 = .26$, power = 1.00]. Additionally, we observed a marginally significant treatment by maltreatment history effect, suggesting variation in the effectiveness of treatment by maltreatment group [overall *F* (1, 71) = 2.50, *p* < .10, $\eta^2 = .11$, power = .49]. An examination of the univariate *F* statistics showed that the interaction effect was limited to measure of stress in the Child Domain [*F* (1, 71) = 4.97, *p* < .05, $\eta^2 = .07$, power = .59; Parent Domain:

Table 4

Mean levels of parental distress pre- and post-treatment by children's history of maltreatment and parental offender status

	Child maltreated			Parent perpetrator ^a		
	No	Yes	Effects	No	Yes	Effects
PSI Child Domain (raw scores)	<i>N</i> = 25	<i>N</i> = 51		<i>N</i> = 15	<i>N</i> = 36	
Pre-treatment	133.2	114.0	Tx × M*	118.2	112.2	Tx***
Post-treatment	110.4	101.1	Tx***, M**	101.5	100.9	
PSI Parent Domain (raw scores)	<i>N</i> = 25	<i>N</i> = 51		<i>N</i> = 15	<i>N</i> = 36	
Pre-treatment	133.5	121.9	M*	115.5	124.6	
Post-treatment	125.2	117.2		117.2	117.2	
Global Severity Index (<i>t</i> scores)	<i>N</i> = 30	<i>N</i> = 61		<i>N</i> = 17	<i>N</i> = 44	
Pre-treatment	55.7	52.3	Tx***	50.8	52.8	Tx***
Post-treatment	45.1	45.9		44.4	46.6	
CAPI Abuse scale (raw scores)	<i>N</i> = 27	<i>N</i> = 66		<i>N</i> = 19	<i>N</i> = 47	
Pre-treatment	119.2	122.8	Tx*	107.4	129.0	Tx***
Post-treatment	74.0	93.7		86.5	96.6	
CAPI Rigidity (raw scores)	<i>N</i> = 27	<i>N</i> = 66		<i>N</i> = 19	<i>N</i> = 47	
Pre-treatment	11.4	16.1	Tx*	15.8	16.3	
Post-treatment	10.0	14.6		14.0	14.9	

Tx = treatment effects, M = maltreatment history, Pr = parent perpetrator.

^a Only maltreated children are included in these analyses (*N* = 91).* *p* < .05.** *p* < .01.*** *p* < .001.

$F(1, 71) = 1.70$, ns, $\eta^2 = .02$, power = .25]. Analyses of pre- and post-treatment Global Severity Index scores (GSI) and CAPI Abuse and Rigidity scale scores also showed strong treatment effects [GSI: $F(1, 90) = 20.56$, $p < .001$, $\eta^2 = .19$, power = .99; CAPI: overall $F(1, 92) = 9.92$, $p < .000$, $\eta^2 = .19$, power = .98]. These effects did not vary significantly by history of maltreatment.

Analyses comparing treatment effects for offending and non-offending parents of maltreated children had mixed results (see Table 4). In addition to expected treatment effects on the measure of parental stress [$F(1, 49) = 12.17$, $p < .000$, $\eta^2 = .34$, power = .93], we observed marginally significant variation by parent offender status. However, examination of univariate *F* statistics did not reveal even marginally significant interaction effects, and showed significant treatment effects for the measure of stress in the Child Domain alone [$F(1, 49) = 21.8$, $p < .001$, $\eta^2 = .31$, power = 1.00]. We did not observe significant treatment effects for the stress in the Parent Domain or Rigidity scales [PSI Parent Domain: $F(1, 49) = .73$, ns, $\eta^2 = .02$, power = .13; CAPI Rigidity: $F(1, 64) = .89$, ns, $\eta^2 = .01$, power = .15]. Analyses of changes in parents' psychological functioning (GSI) from pre- to post-treatment showed significant treatment effects [$F(1, 60) = 14.89$, $p < .001$, $\eta^2 = .20$, power = .97], and did not vary by parent offender status.

Changes in children's risk status. While repeated measures analyses of variance describe the statistical significance of change in symptoms from pre- to post-treatment for maltreated and non-abused children, they do not show clinical significance. Of the children who completed treatment, 26.0%

of maltreated and 53.6% of non-maltreated children were reported to have clinical levels of behavior problems pre-treatment (i.e., CBCL total t score > 64 ; Achenbach, 1994). Post-treatment, 13.7% of maltreated and 14.3% of non-maltreated children was reported to have clinical levels of behavior problems.

Discussion

The primary goal of this study was to determine whether PCIT was an effective intervention for maltreated children and their offending or non-offending parents. The first step in testing PCIT's effectiveness was to determine whether the therapy was engaging and rewarding enough to keep high-risk dyads in treatment. Results of our analyses predicting early treatment termination showed that among maltreated children, the more behavior problems parents reported, the less likely they were to complete treatment. These findings suggest that characteristics of children unique to their maltreatment history influence their parents' engagement in PCIT. For example, it is possible that when parents of abused children report more extreme behavior problems, they are signaling their perception that these children did not want to be with them. Alternately, they could be communicating their own inability to work with the child. Since these high-risk parent-child dyads are judged to have an urgent need for mental health services to diminish the children's risk of reabuse, we find these results disturbing. We hope that future work investigating the effectiveness of PCIT in high-risk populations will also develop and test different methods for keeping these clients in treatment.

The second step in testing the effectiveness of PCIT was to determine whether or not child behavior problems and parent stress diminished from pre- to post-treatment among dyads with and without a history of maltreatment. Results showed strong pre- to post-treatment improvements in child behavior (i.e., reductions in CBCL and ECBI scores) and parent stress (i.e., changes in PSI, SCL-90-R, and CAPI abuse and rigidity scores) for parent-child dyads with and without a history of maltreatment, and for offending and non-offending parents.

The changes from pre- to post-treatment in reported parent and child attitudes and symptoms (CBCL, ECBI, and PSI scores) were similar in magnitude to those reported for pre- to post-treatment changes in a study of the efficacy of PCIT for parents of children diagnosed with oppositional defiant disorder (Schuhmann, Foote, Eyberg, Boggs, & Algina, 1998), suggesting that the treatment effects we observed are what we might have expected had we implemented random assignment to treatment groups. Interestingly, the pre- to post-treatment changes were also similar in magnitude to those reported by Kolko (1996b) for parents and their abused children completing either individual cognitive behavioral treatment or family therapy (CAPI and CBCL scores), even though PCIT does not specifically target parents' or children's mental health issues. While it is impossible to know whether one type of treatment affects psychological functioning in the same way as another, the similarity of the reductions in child behavior problems and abuse scale scores (CAPI) suggests that the treatments may at least serve similar functions.

Although we observed positive treatment outcomes for all groups, we observed that parents of children with a maltreatment history reported fewer treatment gains on the CBCL externalizing and total score scales and the PSI child domain scale, though not on the ECBI. It is interesting that this interaction effect attains significance not because parents of maltreated children rate them as finishing treatment with more problems, but because they claim that they begin treatment with fewer problems. We have observed

that many parents who are working with Child Protective Services under-report the problems they are having with their children pre-treatment, perhaps in defense of their ability to parent their children. Once parents begin to trust their therapists, they often freely complain about their children's behavior. These parents may be particularly reluctant to acknowledge clinically significant symptoms of the CBCL or the moods and social interaction qualities of the PSI, while the more everyday behavior problems on the ECBI measures may be less threatening.

Though not a focus of this study, a related implication of the findings presented here is the discovery that the original PCIT protocol requiring physical holding and swats to the bottom were not essential elements of treatment success. This study showed that it was possible to show significant improvements in children's behavior using a "hands-off" time-out procedure, and either removal of privileges or a time-out room if children refused to comply with time-outs.

While the strength of the changes from pre- to post-treatment cannot be disputed, we must entertain alternative explanations for these dramatic drops in behavior problems and parental distress from pre- to post-treatment. The PCIT paradigm is founded on the belief that by coaching parents to praise their children's positive behaviors, ignoring their negative behaviors, and teaching them skills in behavior management that the children will behave well and parents will be happy with them. In other words, the behaviors that parents reinforce will be the behaviors children exhibit. However, it is possible that parents' reports of improvements in children's behavior are more a reflection of a shift in their own attitudes towards their children than a change in children's behavior. We ask them to focus on and praise their children's positive, appropriate behavior. Perhaps by shifting the parents' behavior to focus on positive aspects of their children, we cause a shift in attitudes about and perceptions of their children's behavior. Although not the primary focus of this treatment program, a positive shift in parental attributions may benefit maltreating parents (Milner, 2000). Alternately, these changes in parents' perceptions could result from their expectations for improvement as a result of being in therapy. Their beliefs in the benefits of therapy would drive their perceptions of change in the same way that people might believe in the power of a placebo. Last, the changes in maltreating parents' perceptions of their children and their own functioning could be an extension of their own desire to present themselves in a favorable light in order to retain or regain custody of their children, or from a desire to feel competent as parents. Future research, using multiple informants and multiple methods will provide more solid evidence for PCIT's effectiveness.

Limitations of this study

This study has several limitations that detract from its clinical significance. First, it was not an efficacy study. We did not randomly assign abusive parent-child dyads to a PCIT condition. Rather, we performed an effectiveness study, relying on the strength of previous efficacy studies to provide a baseline of treatment efficacy for non-abusive parents. We argue that an important part of establishing a treatment's effectiveness must be the determination of the limits of its effectiveness, or the conditions under which treatment is less likely to succeed. Effectiveness studies serve this purpose.

Second, we did not have follow-up data to demonstrate the maintenance of treatment effects over time, but relied on pre- versus post-treatment comparisons as indicators of treatment effectiveness. Recent research has documented maintenance of reductions in child behavior problems after participation in PCIT for up to 6 years post-treatment (Hood & Eyberg, 2003), but further research will need to document PCIT's long-term effectiveness for maltreated populations.

Last, while we used social workers' reports and court reports to document the child's physical abuse history and parents' abusiveness, the outcome measures are based on parents' reports of their children's and their own functioning. We lacked multiple sources of information about children. And, although commonly accepted as indicators of adult and child functioning, the standardized measures used in this study reflect levels of negative attitudes and behaviors. They do not reflect the positive interactive behaviors witnessed over the course of treatment, or parents' and children's increased enjoyment in each other's company. Future studies should include information about the maintenance of treatment effects over time, different sources of information about children's functioning (Briere, 1996), and qualitative as well as standardized measures.

Barriers to treatment effectiveness in the treatment of abused children

In our analyses of sample bias, we attempted to define the population of dyads with and without a history of maltreatment who completed treatment. We draw attention to the fact that children with a history of maltreatment who had extreme behavior problems were more likely to end treatment early. PCIT is an intervention in which it is essential that parents have a strong interest in sustaining a stable relationship with their child (preferably mutually rewarding). When children make the process of sustaining a relationship difficult, the parents may be less motivated to overcome the barriers in their relationships, and terminate treatment early. The problems specific to this population underscore the importance of maintaining them in mental health treatment, as well as the importance of continuing to document empirically the effectiveness of interventions suitable for these families.

References

- Abidin, R. R. (1995). *Parenting stress index: Professional manual*. Odessa, FL: Psychological Assessment Resources.
- Achenbach, T. M. (1994). *Manual for the child behavior checklist 4–18 and 1994 profile*. Burlington, VT: University of Vermont, Department of Psychiatry.
- Achenbach, T. M. (2001). *Manual for the ASEBA school-age. Forms & profiles*. Burlington, VT: University of Vermont, Research Center for Children, Youth & Families.
- Achenbach, T. M., & Rescorla, L. A. (2000). *Manual for the ASEBA preschool forms & profiles*. Burlington, VT: University of Vermont, Research Center for Children, Youth & Families.
- Allesandri, S. M. (1992). Mother-child interactional correlates of maltreated and non maltreated children's play behavior. *Development and Psychopathology, 4*, 257–270.
- Azar, S. T. (1989). Training parents of abused children. In C. E. Schaefer & J. M. Briesmeister (Eds.), *Handbook of parent training* (pp. 414–441). New York: Wiley.
- Bousha, D. M., & Twentyman, C. T. (1984). Mother-child interactional style in abuse, neglect, and control groups: Naturalistic observations in the home. *Child Development, 93*, 106–114.
- Brestan, E., Eyberg, S., Boggs, S., & Algina, J. (1997). Parent-Child Interaction Therapy: Parents' perceptions of untreated siblings. *Child & Family Behavior Therapy, 3*, 13–28.
- Briere, J. (1996). Treatment outcome research with abused children: Methodological considerations in three studies. *Child Maltreatment, 1*, 348–352.
- Cerezo, M. A. (1997). Abusive family interaction: A review. *Aggression & Violent Behavior, 2*(3), 215–240.
- Cerezo, M. A., & D'Ocon, A. D. (1999). Sequential analyses in coercive mother-child interaction: The predictability hypothesis in abusive versus nonabusive dyads. *Child Abuse & Neglect, 23*, 99–113.
- Chaffin, M., Silovsky, J., Funderburk, B., Valle, L., Brestan, E., Balachova, T., Jackson, S., Lensgraf, J., & Bonner, B. (2004). Parent-Child Interaction Therapy with physically abusive parents. Efficacy for reducing future abuse reports. *Journal of Consulting and Clinical Psychology, 72*, 500–510.

- Cicchetti, D., & Toth, S. (2000). Developmental processes in maltreated children. In D. Hansen (Ed.), *Nebraska symposium on motivation. Vol. 46: Motivation and child maltreatment* (pp. 85–160). Lincoln, NE: University of Nebraska Press.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Lawrence Erlbaum.
- Derogatis, L. R., & Lazarus, L. (1994). SCL-90-R, Brief Symptom Inventory, and matching clinical rating scales. In M. E. Maruish (Ed.), *The use of psychological testing for treatment planning and outcome assessment* (pp. 217–248). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Dore, M. M., & Lee, J. M. (1999). The role of parent training with abusive and neglectful parents. *Family Relations*, 48(3), 313–325.
- Eisenstadt, T. H., Eyberg, S., McNeil, C. B., Newcomb, K., & Funderburk, B. (1993). Parent-Child interaction therapy with behavior problem children: Relative effectiveness of two stages and overall treatment outcome. *Journal of Clinical Child Psychology*, 22(1), 42–51.
- Eyberg, S. (1988). PCIT: integration of traditional and behavioral concerns. *Child and Family Behavior Therapy*, 10, 33–46.
- Eyberg, S., Funderburk, B., Hembree-Kigin, T., McNeil, C., Querido, J., & Hood, K. (2001). Parent-Child Interaction Therapy with behavior problem children: One and two year maintenance of treatment effects in the family. *Child & Family Behavior Therapy*, 23, 1–20.
- Eyberg, S., & Robinson, E. A. (1982). Parent-Child Interaction Training: Effects on family functioning. *Journal of Clinical Child Psychology*, 11(2), 130–137.
- Eyberg, S., & Robinson, E. A. (1983). Conduct problem behavior: Standardization of a behavioral rating scale with adolescents. *Journal of Clinical Child Psychology*, 12, 347–354.
- Eyberg, S., & Ross, A. W. (1978). Assessment of child behavior problems: The validation of a new inventory. *Journal of Clinical Child Psychology*, 7, 113–116.
- Fogel, A. (1993). *Developing through relationships: Origins of communication, self and culture*. Chicago, IL: University of Chicago Press.
- Fox, R. A., Fox, T. A., & Anderson, R. C. (1991). Measuring the effectiveness of the STAR parenting program with parents of young children. *Psychological Reports*, 68, 35–40.
- Funderburk, B., Eyberg, S., Newcomb, K., McNeil, C., Hembree-Kigin, T., & Capage, L. (1998). Parent-Child Interaction Therapy with behavior problem children: Maintenance of treatment effects in the school setting. *Child & Family Behavior Therapy*, 20, 17–38.
- Hembree-Kigin, T., & McNeil, C. B. (1995). *Parent-Child Interaction Therapy*. New York: Plenum Publishers.
- Hood, K., & Eyberg, S. (2003). Outcomes of Parent-Child Interaction Therapy: Mothers' reports of maintenance three to six years after treatment. *Journal of Clinical Child and Adolescent Psychology*, 32, 412–429.
- Kolko, D. J. (1992). Characteristics of child victims of physical violence: Research findings and clinical implications. *Journal of Interpersonal Violence*, 7(2), 244–276.
- Kolko, D. J. (1996a). Clinical monitoring of treatment course in child physical abuse: Psychometric characteristics and treatment comparisons. *Child Abuse & Neglect*, 20, 23–45.
- Kolko, D. J. (1996b). Individual cognitive behavioral and treatment and family therapy for physically abused children and their offending parents: A comparison of clinical outcomes. *Child Maltreatment*, 1, 322–342.
- McNeil, C. B., Eyberg, S., Eisenstadt, T. H., Newcomb, K., & Funderburk, B. (1991). Parent-Child Interaction Therapy with behavior problem children: Generalization of treatment effects to the school setting. *Journal of Clinical Child Psychology*, 20(2), 140–151.
- Milner, J. S. (1986). *The Child Abuse Potential Inventory: Manual* (2nd ed.). Webster, NC: Psytec.
- Milner, J. S. (2000). Social information processing and child physical abuse: Theory and research. In D. J. Hansen (Ed.), *Nebraska symposium on motivation. Vol. 46: Motivation and child maltreatment* (pp. 39–84). Lincoln, NE: University of Nebraska Press.
- Milner, J. S., & Chilamkurti, C. (1991). Physical child abuse perpetrator characteristics: A review of the literature. *Journal of Interpersonal Violence*, 6(3), 345–366.
- Milner, J. S., & Wimberly, L. (1980). Prediction and explanation of child abuse. *Journal of Clinical Psychology*, 36, 875–884.
- National Academy of Sciences. (1993). *Understanding child abuse and neglect*. Washington, DC: National Academy Press.
- National Institute of Child Health and Human Development Early Child Care Research Network, & Duncan, G. (2003). Modeling the impacts of childcare quality on children's preschool cognitive development. *Child Development*, 74, 1454–1475.

- Patterson, G. R. (1976). The aggressive child: Victim and architect of a coercive system. In E. J. Mash, L. A. Hamerlynck, & L. C. Handy (Eds.), *Behavior modification and families* (pp. 267–316). New York, NY: Brunner/Mazel.
- Patterson, G. R. (1982). *Coercive family process*. Eugene, OR: Castalia.
- Rogosch, F., Cicchetti, D., & Aber, J. (1995). The role of child maltreatment in early deviations in cognitive and affective processing abilities and later peer relationship problems. *Development & Psychopathology*, 7, 591–609.
- Schuhmann, E., Foote, R., Eyberg, S., Boggs, S., & Algina, J. (1998). Efficacy of Parent-Child Interaction Therapy: Interim report of a randomized trial with short-term maintenance. *Journal of Clinical Child Psychology*, 27, 24–45.
- Shields, A., & Cicchetti, D. (1998). Reactive aggression among maltreated children: The contributions of attention and emotion dysregulation. *Journal of Clinical Child Psychology*, 27, 381–395.
- Thomas, R. (1996). Reflective dialogue parent education design: Focus on parent development. *Journal of Applied Family & Child Studies*, 45(2), 189–200.
- Timmer, S., Urquiza, A., & Zebell, N. (in press). Challenging foster caregiver-maltreated child relationships: The effectiveness of Parent Child Interaction Therapy. *Children and Youth Services Review*.
- U.S. Department of Health and Human Services, Administration on Children, Youth, & Families. (2005). *Child maltreatment 2003*. Washington, DC: U.S. Government Printing Office.
- Urquiza, A. J., & McNeil, C. B. (1996). Parent-Child Interaction Therapy: An intensive dyadic intervention for physically abusive families. *Child Maltreatment*, 1(2), 134–144.
- Wolfe, D.A., (1987). *Child abuse: Implications for child development and psychopathology* (Vol. 10). Thousand Oaks, CA: Sage.

Résumé

Objectif: La Formation Interactive Parent-Enfant (FIPE), utilisant un schéma d'apprentissage social, est une intervention diadique élaborée pour modifier les spécificités interactives dans les relations parent-enfant. Une étude antérieure suggère que des caractéristiques d'inadaptabilité et de haut risque trouvées dans des diades enfant-parent maltraitant pourraient être améliorées par une FIPE. L'objectif de cette étude a été d'étudier l'efficacité de la FIPE dans les diades enfant-parent maltraitant.

Méthodologie: Cette étude décrit l'efficacité de la FIPE dans 136 diades enfant-parent biologique dont 66,9% (N = 91) des enfants ont été maltraités. Pour ces 91 enfants maltraités, 64,8% (N = 59) des parents avaient maltraité leurs enfants, et étaient donc considérés comme à haut risque de récurrence.

Résultats: Les premiers résultats de cette étude sont les suivants: 1) une baisse des problèmes comportementaux infantiles, 2) une diminution du stress parental, et 3) une diminution du risque de maltraitance entre l'avant et l'après-traitement dans les diades avec ou sans antécédent de maltraitance.

Conclusions: Nos résultats s'ajoutent au lot de recherches confirmant que la FIPE est une intervention prometteuse et un moyen d'aider à la fois les enfants et les parents dans les familles à haut risque de maltraitance.

Resumen

Objetivo: El Entrenamiento en Interacción Padre-Hijo (PCIT), que utiliza el marco teórico del aprendizaje social, es una intervención diádica que está diseñada para modificar patrones específicos de interacción encontrados en las relaciones padres-hijos. La investigación previa sugiere que las características desadaptativas y de alto-riesgo encontradas en las relaciones diádicas padres-hijos con problemas de maltrato pueden ser objeto de intervención con el PCIT. El foco principal de este estudio es el examen de la efectividad del PCIT con diadas padres-hijos en los que existe una situación de maltrato.

Metodología: El estudio describe la efectividad del PCIT con 136 diadas biológicas padres-hijos en las cuales el 66.9% (n=91) de los niños han sido maltratados. De los 91 niños/as maltratados, el 64.8% (n = 59) de los padres han maltratado a sus hijos y se considera que existe un alto riesgo de que se vuelva a producir el maltrato físico.

Resultados: Los hallazgos de este estudio señalan que entre el pre y el post-tratamiento hay un descenso en los problemas de conducta de los niños/as, un descenso en el estrés parental y un descenso en el riesgo de maltrato tanto para las diadas con historia y sin historia de maltrato.

Conclusiones: Nuestros resultados se añaden al cuerpo de investigación que apoya el PCIT como un tipo de intervención prometedora y como un medio para ayudar tanto a los niños como a los padres en familias con alto-riesgo de maltrato.