Toward Evidence-Based Treatment: Child–Parent Psychotherapy with Preschoolers Exposed to Marital Violence

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ABSTRACT

Objective: Treatment outcome for preschool-age children exposed to marital violence was assessed, comparing the efficacy of Child-Parent Psychotherapy (CPP) with case management plus treatment as usual in the community. Method: Seventy-five multiethnic preschool mother dyads from diverse socioeconomic backgrounds were randomly assigned to (1) CPP or (2) case management plus community referral for individual treatment. CPP consisted of weekly parent–child sessions for 1 year monitored for integrity with the use of a treatment manual and intensive training and supervision. Parents completed the Child Behavior Checklist and participated in the Structured Clinical Interview for DC:0-3 to assess children’s emotional and behavioral problems and posttraumatic stress disorder (PTSD) symptoms. Mothers completed the Symptom Checklist-90 and the Clinician Administered PTSD Scale interview to assess their general psychiatric and PTSD symptoms. Results: Repeated-measures analysis of variance demonstrated the efficacy of CPP with significant group × time interactions on children’s total behavior problems, traumatic stress symptoms, and diagnostic status, and mothers’ avoidance symptoms and trends toward significant group × time interactions on mothers’ PTSD symptoms and general distress. Conclusions: The findings provide evidence of the efficacy of CPP with this population and highlight the importance of a relationship focus in the treatment of traumatized preschoolers. J. Am. Acad. Child Adolesc. Psychiatry, 2005;44(12):1241–1248. Key Words: child witnesses of domestic violence, preschool children, child–parent psychotherapy.

There is growing recognition that, contrary to the longstanding assumption that young children are impervious to environmental stresses, preschoolers exposed to family violence show increased rates of disturbances in self-regulation and in emotional, social, and cognitive functioning (Lieberman and Van Horn, 1998; Osofsky, 2004; Pynoos et al., 1999). The strongest negative reactions seem to occur when the violence involves harm to the mother or primary caregiver (Osofsky, 1995; Scheeringa and Zeanah, 1995), underscoring the need for effective intervention with young children exposed to marital violence. The present study examines the efficacy of Child-Parent Psychotherapy (CPP; Lieberman, 2004) for this population. The value of focusing on the child–mother relationship as the therapeutic mechanism of change has been demonstrated by randomized trials involving toddlers with anxious attachment (Lieberman et al., 1991), toddlers of depressed mothers (Cicchetti et al., 1999, 2000), and neglected/maltreated preschoolers (Toth et al., 2002). The present study extends this relationship-based model to preschoolers exposed to marital violence and their mothers.

CPP is based on the following major premises: the attachment system is the main organizer of children’s responses to danger and safety in the first years of life (Ainsworth, 1969; Bowlby, 1969/1982); early mental health problems should be addressed in the context of the child’s primary attachment relationships (Fraiberg, 1980; Lieberman et al., 2000); child outcomes emerge in the context of transactions between the child and
environmental protective and risk factors (Cicchetti and Lynch, 1993; Sameroff, 1995); interpersonal violence is a traumatic stressor with pathogenic repercussions on its witnesses as well as its recipients (Pynoos et al., 1999); the therapeutic relationship is a key mutative factor in early mental health treatment (Lieberman et al., 2000); and the family’s cultural values must be incorporated into treatment (Tharp, 1991; Wessells, 1999).

Developmental psychopathology models emphasize the cumulative role of multiple stressors and their timing in shaping child outcome (Rutter, 2000; Sameroff, 2000). Marital violence does not occur in isolation but overlaps significantly with child abuse (Edleson, 1999; Kitzman et al., 2003; Margolin and Gordis, 2000). This co-occurrence is relevant to treatment because children’s functioning is profoundly affected by their age when first traumatized, frequency of traumatic experiences, and parents’ role in the trauma (American Psychiatric Association, 1994; van der Kolk et al., 1996). In addition, family violence often has an intergenerational history. There is a dearth of research evidence related to fathers, but many battered women report traumatic events while growing up (Groves, 2002; Osofsky, 1997; Lieberman et al., 2005). These events increase the likelihood of maternal psychiatric problems because trauma antecedent the “target” traumatic event is a risk factor for PTSD, particularly among battered women (Kemp et al., 1995; Ozer et al., 2003).

Maternal exposure to violence also affects the quality of parenting. Battered women may be more harshly punitive with their children and show increased incidence of child abuse (Osofsky, 2003; van der Kolk, 1987). Punitive parenting is linked to internalizing and externalizing child behaviors, with high co-occurrence of both types of problems (Reid and Eddy, 1998; Shaw and Winslow, 1997). Battered women often underestimate their children’s violence exposure because their attention is diverted toward their own experience (Pynoos et al., 1999), they feel guilt for exposing their children to violence (Peled and Edleson, 1992), or their child’s behavior is a traumatic reminder that triggers maternal avoidance (Lieberman, 2004; Pynoos et al., 1999).

The empirical literature on the impact, predictors, and mediators of marital violence on children’s psychological functioning is compatible with several theoretical conceptualizations. Psychodynamic formulations stress the intergenerational transmission of psychopathology, as memorably articulated in the “ghosts in the nursery” model (Fraiberg, 1980). Attachment theory posits that exposure to marital violence and other interpersonal stressors damage the young child’s developmental expectation that the parent will be reliably available as a protector, leading to a loss of the child’s internal representation of the parent as a predictable “secure base” (Lieberman and Van Horn, 1998; Main and Hesse, 1990; Osofsky, 1997; Pynoos et al., 1999; Scheeringa and Zeanah, 1995; van der Kolk, 2003). Social learning and cognitive-behavioral theories highlight the importance of imitation as a primary form of learning, the generalization of hostile attributions, and the interconnections among maladaptive cognitions, feelings, and actions in generating self-defeating and aggressive behaviors (Cohen and Mannarino, 1996; Dodge, 1980; Greenberg et al., 1993; Reid and Eddy, 1998). Ecological models stress the pervasive negative impact of poverty, social inequality, and discrimination, and highlight the curative potential of traditional cultural practices (Bronfenbrenner, 1979; Wessells, 1999). Each of these theoretical orientations makes significant clinical contributions and has been incorporated in the strategies outlined in the CPP treatment manual (Lieberman and Van Horn, 2005).

CPP interventions are guided by the unfolding child–parent interactions and by the child’s free play with developmentally appropriate toys selected to elicit trauma play and foster social interaction. The initial assessment sessions include individual sessions with the mother to communicate emerging assessment findings, agree on the course of treatment, and plan how to explain the treatment to the child. Weekly joint child–parent sessions are interspersed with individual sessions with the mother as clinically indicated. The interventions target for change maladaptive behaviors, support developmentally appropriate interactions, and guide the child and the mother in creating a joint narrative of the traumatic events while working toward their resolution. The treatment manual includes clinical strategies and clinical illustrations to address the following domains of functioning: play; sensorimotor disorganization and disruption of biological rhythms; fearfulness; reckless, self-endangering, and accident-prone behavior; aggression; punitive and critical parenting; and the relationship with the perpetrator of the violence and/or absent father.

The present study reports outcome findings from a randomized clinical trial to evaluate the efficacy of CPP compared with case management plus individual
treatment. We hypothesized that CPP would be more effective in alleviating children’s traumatic stress symptoms and behavior problems because it focuses on improving the quality of the child–mother relationship and engages the mother as the child’s ally in coping with the trauma. Treatment was offered for 50 weeks. Dyads were assessed at intake, 6 months into treatment, and at the conclusion of treatment. Six-month posttreatment assessments are being conducted to evaluate the longer-term efficacy of CPP. Different assessors were used at each assessment point, and every effort was made to keep assessors blind to group assignment. On occasion, the child or the mother made a comment that revealed their group classification.

METHOD

Participants

Participants were 39 girls and 36 boys ages 3 to 5 (mean = 4.06, SD = 0.82) and their mothers. Mother–child dyads were referred because there were clinical concerns about the child’s behavior or mother’s parenting after the child witnessed or overheard marital violence. Referral sources included family court (40%), domestic violence service providers (12%), medical providers (9%), preschools (6%), other agencies (12%), child protective services (3%), former clients (6%), and self-referrals (3%). Child–mother dyads were recruited if the child was 3 to 5 years old, had been exposed to marital violence as confirmed by mother’s report on the Conflict Tactics Scale 2 (Straus et al., 1996), and the perpetrator was not living in the home. Exclusionary criteria for the mothers were documented abuse of the target child, current substance abuse and homelessness, mental retardation, and psychosis. Children with mental retardation or autistic spectrum disorder were also excluded.

Participants were ethnically diverse. Of the children, 38.7% had mixed ethnicity (predominantly Latino/white) and the rest were 28% Latino, 14.7% African American, 9.3% white, 6.7% Asian, and 2.6% of another ethnicity. Mothers were 37.3% Latina, 24% white, 14.7% African American, 10.7% Asian, and the rest of mixed or other ethnicities. Mean maternal education was 12.51 years (SD = 3.96). Mean monthly family income was $1,817 (SD = $1,460; range $417–$8,333). Public assistance was received by 23% of the families and 41% had incomes below the federal poverty level according to the Department of Health and Human Services Guidelines (2004).

Most mothers reported multiple traumatic stressors in addition to marital violence (mean = 12.36, range 2–26). Maternal childhood trauma included witnessing marital violence (48%), physical abuse (49%), sexual molestation (42%), and the sudden/traumatic death of someone close (44%). The children also experienced multiple stressors, including exposure to community violence (46.7%), physical abuse (18.7%), sexual abuse (14.7%), or both (4%). During the study, 33.3% of the mothers reported new traumas that affected the dyad and 17.3% of the mothers reported either returning to their violent partners or entering a new violent relationship. t Tests for continuous variables and χ² tests for categorical variables showed that the groups did not differ on these variables or on demographic variables, dependent variables, or trauma exposure at intake.

Procedures

Participants were screened on the telephone by a master’s degree–level clinician to determine inclusionary and exclusionary criteria. During the first assessment session, master’s degree– or Ph.D. degree–level assessors described the study and the randomization process and obtained maternal signed informed consent. All of the procedures had University of California-San Francisco institutional review board approval. The assessment consisted of four sessions and included questionnaires, standardized assessments, and direct observation of child and mother. The mothers received feedback at the end of the assessment about their children’s functioning and the mother–child relationship and were asked to reaffirm their willingness to be randomized to one of two treatment groups. All of the mothers consented, and dyads were randomly assigned to either the CPP treatment group or to a comparison group receiving monthly case management by an experienced Ph.D.–degree–level clinician plus referrals for individual treatment in the community for mother and child. They received $30 for the intake and $40 for the outcome assessment. When Spanish versions of measures were not available from the publisher, a team of Spanish speakers from diverse Spanish-speaking countries translated, back-translated, and ensured that English and Spanish versions were equivalent in literacy level. Services to Spanish-speaking participants were provided in Spanish. All of the quantitative measures involved parental report because of the dearth of self-report measures for preschoolers.

Child Measures


Child Behavior Checklist (CBCL 2/3 and 4/18). This instrument includes versions for 2- to 3- and 4- to 18-year-olds (Achenbach, 1991a,b; Achenbach and Edelbrock, 1983). It discriminates well between children referred for clinical services and nonreferred demographically matched children; is valid for use in cross-cultural samples; and has good reliability, stability, and predictive validity. The Total Behavior Problems score was used because it includes stress-related behaviors not represented in the internalizing and externalizing scales (e.g., staring into space, smearing feces, refusing to eat, showing too little fear of getting hurt, destroying his/her own things).

Semistructured Interview for Diagnostic Classification DC: 0-3 for Clinicians. This clinician-administered caregiver interview uses a standardized format to systematize the traumatic stress disorder (TSD) diagnostic criteria of the Diagnostic Classification Manual for Mental Health and Developmental Disorders of Infancy and Early Childhood (DC: 0-3; Zero to Three/National Center for Clinical Infant Programs, 1994). For children under age 6, this instrument was compared with DSM-IV PTSD criteria and yielded greater interrater reliability (Scheeringa et al., 1995) and greater diagnostic sensitivity (Scheeringa et al., 2003) for a TSD diagnosis.

Maternal Measures

Life Stressor Checklist-Revised. (Wolfe et al., 1996) This questionnaire probes for the lifetime incidence of very distressing events, including specific stressors more prevalent among women. Endorsement of
one or more stressors is significantly correlated with a PTSD diagnosis (Wolfe et al., 1996).

Symptoms Checklist-90 Revised (SCL-90-R). This 90-item checklist is a measure of current psychiatric symptoms yielding three summary indices and nine primary dimensions, with α ranging from .77 to .90, and test-retest reliabilities from 0.78 to 0.90 (Derogatis, 1994). The Global Severity Index, considered the best single indicator of current distress, is used to assess maternal functioning.

Clinician-Administered PTSD Scale (CAPS). This semistructured interview has adequate reliability and validity (Blake et al., 1990; Spitzer et al., 1987; Weathers and Litz, 1994). It yields a PTSD diagnosis and total intensity and frequency scores for reexperiencing, avoidance, and hyperarousal symptoms.

Treatment

CPP. Participants were randomly assigned to CPP or to case management plus individual treatment comparison group. Weekly CPP child–mother sessions lasted approximately 60 minutes and were conducted over the course of 50 weeks. The clinicians had master’s degree– and Ph.D. degree–level training in clinical psychology. Treatment fidelity was monitored through intensive weekly supervision that included review of process notes and through weekly case conferences.

Case Management Plus Individual Psychotherapy. After randomization, the comparison group mothers received assessment feedback, were introduced to a Ph.D. degree–level clinician for case management, received information about mental health clinics, and were connected to the clinics of their choice. They received at least monthly phone calls from their case manager and could contact him or her as needed. Clinicians assisted in securing needed services, inquired about how mother and child were doing, asked about life changes, and intervened during crises. These calls generally lasted 30 minutes. Face-to-face meetings were scheduled when indicated.

RESULTS

Sample Characteristics

Mothers’ and children’s mean scores and standard deviations on all outcome measures at intake and posttest are shown in Table 1.

Attrition

The attrition rate was 14.3% (n = 6) in the treatment group and 12% (n = 4) in the comparison group. χ² analyses showed no group difference in attrition. The only group difference on demographic and outcome variables was that children who dropped out tended to be older: t(73) = –2.08, p < .05 (two-tailed), d = 0.75. Attrition was stringently defined as not completing at least part of the outcome assessment and included a family who moved out of state immediately after randomization and two families who completed treatment but not the outcome assessment.

Attendance

The treatment group attended a mean of 32.09 CPP sessions (SD = 15.20). In the comparison group, 73% (n = 22) of mothers and 55% (n = 17) of children received individual treatment, and 45% (n = 14) received separate individual psychotherapy for both mother and child. Mothers reported a range of 2 to 50 sessions for children and 6 to 50 sessions for themselves, with 50%
of the mothers and 65% of the children receiving more than 20 individual sessions. One child attended fewer than 5 treatment sessions, and one mother attended between 5 and 10. The remaining mothers and children attended between 11 and 20 sessions.

Treatment Effects

A general linear model (GLM) repeated-measures procedure was conducted for each dependent variable with group (CPP versus comparison) as the between-subject variable and time (intake versus posttreatment) as the within-subject variable. Cases with missing data were deleted listwise for each analysis. Significant group \( \times \) time interactions indicate the presence of treatment effects and were followed with repeated-measures analyses within each group to determine whether significant change occurred in both groups. Effect size (Cohen, 1988) was calculated with:

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d = \frac{\text{mean group 1} - \text{mean group 2}}{\text{pooled SD}}
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\]

Treatment outcome analyses include the 66 dyads that completed the outcome assessment. The original 76 dyads are included in the intent-to-treat analyses.

Child Functioning

There was a significant group \( \times \) time interaction for the total number of TSD symptoms \((F_{1,59} = 10.98, p < .001, d = 0.63)\) and a significant main effect for time \((F_{1,59} = 17.00, p < .001, d = 0.57)\). Follow-up analyses indicated that the CPP group had a significant intake-posttest reduction in the number of TSD symptoms \((t (32) = 5.46, p < .001)\), whereas the comparison group did not.

Analyses of CBCL. Total scores showed a significant group \( \times \) time interaction, \(F_{1,61} = 5.77, p < .05, d = 0.24\), with follow-up analyses revealing that only the CPP group evidenced significant intake-posttest reductions: \(t (34) = 2.86, p < .01\). To examine whether error was introduced because some children completed the CBCL 2-3 at intake and the CBCL 4-18 at posttest, analyses were repeated with only the children who completed the CBCL 4-18 at intake and posttest. These analyses also resulted in a significant interaction effect \((F_{1,31} = 4.72, p < .05, d = 0.64)\), with follow-up analyses confirming that only the CPP group showed significant reductions in behavior problems (CPP: intake mean = 60.32, SD = 9.00; post-test mean = 54.16, SD = 8.71, \(t (18) = 3.10, p < .01\); comparison: intake mean = 58.86, SD = 8.82; posttest mean = 59.64, SD = 13.11). The effect size for this subsample was similar to the effect size found for TSD symptomatology, whereas the effect size with the entire sample was smaller. There were no significant age effects when the original analyses with the TSD and CBCL were repeated using age as a covariate.

The clinical significance of treatment effects was ascertained by examining the percentage of children in each group who met criteria for a diagnosis of TSD. At intake, there was no group difference, with 50% \((n = 18)\) of the CPP group and 39% \((n = 11)\) of the comparison group meeting criteria for TSD. At posttest, there was a statistically significant group difference, \(\chi^2 (n = 61) = 8.43, p < .01, \phi = 0.37\), with 6% \((n = 2)\) of children in the CPP group and 36% \((n = 10)\) children in the comparison group meeting criteria for TSD.

Maternal Symptoms

The CAPS scores revealed a significant group \( \times \) time interaction for avoidance \((F_{1,57} = 5.08, p < .05, d = 0.50)\) as well as a significant main effect for time \((F_{1,57} = 21.68, p < .001, d = 0.68)\). Follow-up analyses showed significant intake-outcome reductions in avoidant symptoms for the CPP group only \((t (33) = 5.16, p < .001)\). For total CAPS scores and the Global Severity Index (GSI) from the SCL-90-R, there were significant main effects for time (total CAPS: \(F_{1,57} = 29.16, p < .001, d = 0.76\); GSI: \(F_{1,59} = 20.72, p < .001, d = 0.57\) and trends for group \( \times \) time (total CAPS: \(F_{1,57} = 3.23, p = .08, d = 0.41\); GSI: \(F_{1,59} = 3.48, p = .07, d = 0.37\)). Follow-up analyses were conducted because these trends were consistent and maternal functioning was not the primary target of CPP. For total CAPS scores, both the CPP and comparison groups showed significant intake-outcome reductions (CPP: \(t (33) = 5.34, p < .001\); comparison: \(t (24) = 2.50, p < .05\)). The interaction was not significant. For GSI scores, the CPP group showed statistically significant reductions \((t (32) = 4.47, p < .001)\), whereas the comparison group showed a trend in this direction \((t (27) = 1.94, p = .06)\). Reexperiencing and hyperarousal showed significant effects for time (reexperiencing: \(F_{1,57} = 21.73, p < .001, d = 0.70\); hyperarousal: \(F_{1,57} = 14.98, p < .001, d = 0.55\) but not group \( \times \) time (reexperiencing: \(F_{1,57} = 1.46, p = \text{not significant [NS]}\); d = 0.31; hyperarousal: \(F_{1,57} = 0.53, p = \text{NS}, d = 0.19\). Although these results suggest there were no treatment effects for reexperiencing and hyperarousal symptoms, it is also possible that the small
sample size and the robust time effect made these effects difficult to detect.

The clinical significance of treatment effects on maternal symptoms was determined by examining the percentage of mothers in each group who were diagnosed with PTSD. At intake, there was no group difference, with 47% \((n = 16)\) of the CPP group and 46% \((n = 12)\) of the comparison group meeting PTSD criteria. At outcome, there was a decline in PTSD diagnosis for mothers in both groups, with 12% \((n = 4)\) of CPP mothers and 27% \((n = 7)\) of comparison mothers meeting criteria for PTSD. This difference was not statistically significant \((\chi^2 (n = 60) = 2.26, p = NS, \phi = 0.19)\).

Intent-to-treat analyses in which intake or 6-month scores, if available, were used in place of missing posttest scores resulted in similar results as those previously described for both mothers and children.

**DISCUSSION**

The findings support CPP efficacy for preschoolers exposed to marital violence. Children randomly assigned to CPP improved significantly more than children receiving case management plus treatment as usual in the community, both in decreased total behavior problems and decreased TSD symptoms. They were also significantly less likely to be diagnosed with TSD after treatment.

We attribute these findings to CPP’s focus on fostering child mental health by promoting a relational process in which increased maternal responsiveness to the child’s developmental needs strengthens the child’s trust in the mother’s capacity to provide protective care.

Mothers receiving CPP showed significantly fewer PTSD avoidance symptoms at the end of treatment than comparison group mothers. We believe this results from consistent attention during treatment to the construction of a joint trauma narrative between the child and the mother. When treatment began, many mothers did not speak about the marital violence with their children for fear of damaging them or because they believed that the children were too young to notice it. The therapeutic focus on dispelling these misperceptions and the children’s often vivid depictions through words and play of the violence they had witnessed gave mothers opportunities to process these experiences within the protective frame of treatment. The joint sessions enabled child and mother to communicate more openly. Mothers frequently expressed surprise at their children’s clear recollections of the violence.

Although mothers in both groups had significantly fewer PTSD symptoms and less global psychiatric distress at outcome, treatment group mothers showed strong trends toward more improvement on both dimensions. These findings are surprising because CPP does not target adult symptoms for intervention, all of the mothers in the comparison group received individual services from a skilled case-management clinician, and 73% of the mothers had individual therapy, which is expected to have focused explicitly on their symptoms. The finding that these interventions did not result in improved outcomes for comparison group mothers relative to the treatment group attests to the centrality of the child–mother relationship as an agent of psychological health both for young children and their mothers. Specifically, the mothers in the treatment group may have found effective ways of processing their own traumatic stress by speaking about the trauma during the joint sessions and helping their children with emotional regulation and correction of cognitive distortions.

The psychological functioning of young witnesses of marital violence is influenced by family factors that include maternal psychological functioning, quality of the mother–child relationship, and quality of parenting (Cicchetti and Lynch, 1993; Jouriles et al., 1998; Levendosky et al., 2003; Lieberman et al., 2005). The present study adds to the small but growing literature demonstrating that psychotherapy geared to improving the quality of parenting is an effective tool for enhancing the outcomes of children exposed to a variety of stressors (Cicchetti et al., 1999, 2000; Lieberman et al., 1991; Toth et al., 2002). The present study expands that literature by demonstrating that CPP results in positive outcomes both for the caregiver and the child. It also highlights the importance of a direct focus on trauma as a common element among evidence-based treatments (Cohen et al., 1998).

**Limitations**

The limitations of this study include a small sample size and reliance on maternal report for some of the major outcome variables. Future research should use a larger sample to replicate the findings and add observational data to the outcome variables. Future research should also focus on the distal outcomes of treatment.
Although CPP is proving effective for immediate symptom improvement, it is an open question whether it will continue to sustain the child’s positive developmental trajectory.

The strengths include a diverse ethnic and socioeconomic sample recruited from the community rather than from battered women’s shelters, characteristics that support the findings’ generalizability.

**Clinical Implications**

The findings highlight the importance of including the mother as an integral partner in the treatment of preschoolers’ traumatic stress symptoms. These findings confirm the practice parameters by Cohen et al. (1998) that recommend parents’ inclusion in the treatment of PTSD among children and adolescents.

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