ARTICLE

Community Treatment of Posttraumatic Stress Disorder for Children Exposed to Intimate Partner Violence

A Randomized Controlled Trial

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Objective: To evaluate community-provided trauma-focused cognitive behavior therapy (TF-CBT) compared with usual community treatment for children with intimate partner violence (IPV)–related posttraumatic stress disorder (PTSD) symptoms.

Design: Randomized controlled trial conducted using blinded evaluators.

Setting: Recruitment, screening, and treatment were conducted at a community IPV center between September 1, 2004, and June 30, 2009.

Participants: Of 140 consecutively referred 7- to 14-year-old children, 124 participated.

Interventions: Children and mothers were randomly assigned to receive 8 sessions of TF-CBT or usual care (child-centered therapy).

Main Outcome Measures: Total child PTSD symptoms assessed using child and parent structured interview (Kiddie Schedule for Affective Disorders and Schizophrenia, Present and Lifetime Version [K-SADS-PL]) and self-report (University of California at Los Angeles PTSD Reaction Index [RI]). Secondary child outcomes were scores on the K-SADS-PL (PTSD symptom clusters), Screen for Child Anxiety Related Emotional Disorders (SCARED) (anxiety), Children's Depression Inventory (depression), Kaufman Brief Intelligence Test (cognitive functioning), and Child Behavior Checklist (total behavior problems).

Results: Intent-to-treat analysis using last observation carried forward showed superior outcomes for TF-CBT on the total K-SADS-PL (mean difference, 1.63; 95% confidence interval [CI], 0.44-2.82), RI (mean difference, 5.5; 95% CI, 1.37-9.63), K-SADS-PL hyperarousal (mean difference, 0.71; 95% CI, 0.22-1.20), K-SADS-PL avoidance (0.55; 0.07-1.03), and SCARED (mean difference, 5.13; 95% CI, 1.31-8.96). Multiple imputation analyses confirmed most of these findings. The TF-CBT completers experienced significantly greater PTSD diagnostic remission ($\chi^2 = 4.67$, $P = .03$) and had significantly fewer serious adverse events.

Conclusions: Community TF-CBT effectively improves children's IPV-related PTSD and anxiety.

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Effective treatment of children's posttraumatic stress disorder (PTSD) typically addresses problems related to previous traumas, that is, those not currently ongoing (eg, accidents,[1] sexual abuse,[2] war,[3] and refugee experiences[4]). Such treatments attempt to revise maladaptive trauma responses once children are safe.

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However, children who experience community violence or witness intimate partner violence (IPV) face ongoing danger. School-based treatment has been shown to effectively improve children's PTSD symptoms after community violence.[5] Intimate partner violence (physical or sexual violence, the threat of such violence, or psychological or emotional abuse toward a current or past intimate partner or spouse[6]) may present unique challenges. In contrast to community violence experiences, IPV is not a random act by a stranger but is personally and specifically directed at the child's parent by a perpetrator with whom the child almost always has an ongoing emotional relationship, albeit often painful or conflictual.[7,8] Unlike children who experience sexual or physical abuse, the risk of serious IPV in-

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creases after the victim reports the IPV,[9-11] and because IPV is not considered a form of child abuse in most jurisdictions, the IPV perpetrator's access to children is typically unrestricted.[10,12] Mothers return to IPV perpetrators a mean of 5 times before permanently ending IPV relationships,[11] often because they believe it is best for their children.[7,8] This can contribute to children's maladaptive cognitions regarding the cause of the IPV (eg, mother-blame and self-blame).[7,8] Because of their own victimization, mothers experiencing IPV may be less able to provide support to their children.[7,8] Thus, treating IPV-related PTSD must be tailored to address the potential of ongoing violence from an IPV perpetrator to whom the child is ambivalently attached in the context of incomplete protection by a victimized mother.[11]

Child-parent psychotherapy,[7] a 50-week attachment-based treatment model, is the only treatment with evidence of effectively treating children's IPV-related PTSD symptoms.[13] In that study,[13] mothers and their preschool children had already separated from IPV perpetrators, and recruitment occurred at an academic hospital program. For these reasons, mothers may have been optimally ready to commit to long-term treatment.[12] Families seeking services from the Women's Center and Shelter of Greater Pittsburgh (WCS), a community IPV center, typically struggle with multiple safety, emotional, financial, legal, and practical problems[14] and access only time-limited therapy. The mean duration of counseling at the WCS is 8 sessions (range, 1-12 sessions), so long-term treatment for these families is infeasible. Trauma-focused cognitive behavior therapy (TF-CBT)[15] was previously found to be superior to child-centered therapy (CCT) for improving PTSD in sexually abused children, many of whom had also experienced IPV.[2] Although TF-CBT and CCT strengthen trust and empowerment, TF-CBT also provides structured components to decrease trauma avoidance, hyperarousal, and maladaptive cognitions. We hypothesized that abbreviated TF-CBT would improve children's total IPV-related PTSD symptoms significantly more than would CCT and, secondarily, that TF-CBT would be superior for improving PTSD symptom clusters, anxiety, depression, cognitive functioning, and total behavior problems.

METHODS

PARTICIPANTS

The treatment study was conducted at the WCS between September 1, 2004, and June 30, 2009. The IPV services provided by the WCS include a hotline, a shelter, legal advocacy, housing assistance, and counseling. Mothers referred to the WCS who staff identified as having children aged 7 to 14 years with mental health symptoms were referred to the project coordinator, who conducted screenings and scheduled evaluations if screening indicated that children were likely to meet the enrollment criteria.

Children were eligible to participate if they (1) were 7 to 14 years old; (2) had at least 5 IPV-related PTSD symptoms, including at least 1 in each of 3 PTSD symptom clusters on the Kiddie Schedule for Affective Disorders and Schizophrenia, Present and Lifetime Version (K-SADS-PL)[16]; (3) were fluent in English and had an English-speaking mother who was a direct IPV victim; and (4) assented (and their mother consented) to participate in 8 therapy sessions. The exclusion criteria were (1) a significant developmental disorder or an IQ less than 80, (2) serious psychotic symptoms in parent or child, and (3) living in an IPV shelter. The study was conducted in compliance with the Allegheny General Hospital institutional review board and the study's data safety and monitoring board.

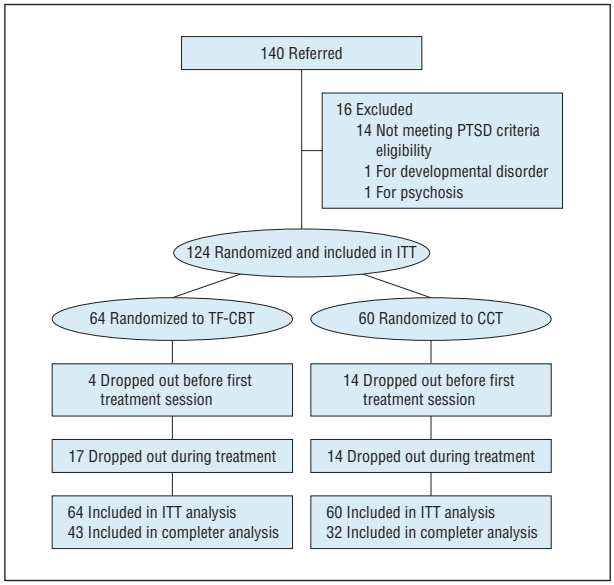

Figure. Consort flow diagram. CCT indicates child-centered therapy; ITT, intent-to-treat; PTSD, posttraumatic stress disorder; and TF-CBT, trauma-focused cognitive behavior therapy.

STUDY PROTOCOL

Of 140 referred children, 124 met the inclusion criteria and assented along with mothers' consent to participation. These 124 children were included in the last observation carried forward (LOCF) intent-to-treat (ITT) analysis. Immediately after the assessment, children and their mothers were randomly assigned to treatment using a computer-generated random number series, were introduced to a study therapist, and were informed of their randomization assignment (TF-CBT, n=64; CCT, n=60). The cohort included 24 sibling sets; for each, the first sibling was randomized and the second sibling received the same treatment assignment. The sample was not stratified to simplify procedures for conducting the project in a community setting. Randomization lists were locked in therapists' offices; the project coordinator had no access to randomization information and remained blinded to random assignment throughout the study. Families, therapists, and the principal investigator (J.A.C.) were aware of treatment assignments.

Initial treatment appointments were scheduled within 1 week or as soon as possible after the initial evaluation. Eighteen children did not return for an initial treatment appointment after the evaluation, and 31 children dropped out of treatment after the initial session. No children who dropped out were available for posttreatment assessments, resulting in 75 treatment completers (**Figure**).

INTERVENTIONS

In both interventions, children and parents each received 45-minute individual therapy sessions for 8 consecutive weeks or until the family completed all 8 sessions. The same therapist saw both child and parent. In TF-CBT, parts of 2 sessions were spent with the child and parent together rather than in separate sessions.

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Child-centered therapy is the usual treatment at the WCS for parents and children and is widely used in community IPV centers.[17] It is based on the premise that traumatized children and adults develop difficulties due to a violation of interpersonal trust and disempowerment. Child-centered therapy reverses these problems by establishing an empowering and trusting relationship between therapist and client and by encouraging the child and parent to direct the content of their own treatment. Therapists provide active listening, reflection, accurate empathy, encouragement to talk about feelings, and belief in the child's and parent's respective abilities to develop positive coping strategies. At the WCS, as in many IPV centers, CCT is provided as brief treatment (mean, 8 sessions; range, 1-12 sessions). Although CCT may be provided as longer-term treatment in other settings, given the many challenges of the IPV population, long-term treatment is often infeasible for these families.

Trauma-focused CBT was shortened from its standard 12 sessions to 8 sessions to accommodate the usual duration of treatment at the WCS and was applied for use with children experiencing ongoing IPV as described in the next paragraph. Initial TF-CBT components include psychoeducation about trauma, developing individualized relaxation skills to manage stress, expressing and modulating upsetting feelings, and cognitive coping skills. Subsequent TF-CBT components include developing a narrative about the child's IPV experiences and correcting maladaptive cognitions expressed during this narrative, in vivo mastery of trauma reminders, joint child-parent sessions during which the child is encouraged to share IPV experiences directly with the mother, and enhancing safety. As the sessions progress, children are encouraged to confront increasingly detailed, distressing, and personal IPV-related reminders and events. Developmentally appropriate strategies are used for implementing TF-CBT with children and adolescents of different ages and clinical presentations.[15,18]

Applications of TF-CBT included the following: (1) the safety component was implemented at the beginning instead of at the end of treatment; (2) the trauma narrative did not focus on mastering past trauma memories but instead on sharing the child's IPV experiences and awareness with the mother and addressing maladaptive cognitions (eg, self- or mother-blame); and (3) instead of mastering reminders of previous IPV episodes, the goal was to optimize the child's ability to discriminate between real danger and generalized fears.

THERAPIST TRAINING AND ASSESSMENT OF INTERVENTION INTEGRITY

The therapists were 3 master's-level social workers who provided child therapy at the WCS. They had diverse clinical backgrounds (child welfare, CCT, and play therapy). They were trained by one of us (J.A.C.) in the applied TF-CBT model and in specific distinctions between TF-CBT and CCT and received supervision until proficiency was reached. A child CCT manual[19] was available for therapists to distinguish CCT from TF-CBT in the study. The WCS clinical supervision occurred as usual throughout the project. Blinded ratings of 25% of randomly selected audiotaped sessions were conducted to check for adherence using study treatment adherence checklists. All the audiotapes met more than 90% adherence for the assigned model.

OUTCOMES EXAMINED

Total PTSD symptoms were assessed using 2 instruments at pretreatment and posttreatment. The K-SADS-PL is a structured diagnostic interview in which the child and parent respond to questions about the child's exposure to 11 trauma types and *Diagnostic and Statistical Manual of Mental Disorders* (Fourth Edition) PTSD symptoms. This instrument has established validity compared with psychiatric interview and interrater reliability for children as young as 6 years old.[16] Two project coordinators blinded to treatment assignment participated; they were trained in the administration of this instrument, with periodic interrater reliability checks conducted. Interclass correlation between the project coordinators and other trained interviewers was 0.95 for PTSD diagnosis. In addition, PTSD was assessed using the University of California at Los Angeles PTSD Reaction Index (RI), a self-report instrument with high validity (0.90) and interrater reliability (0.87).[20]

Secondary outcomes were assessed using the following instruments, all of which had high internal consistency and test-retest reliability. The PTSD symptom clusters were assessed using the K-SADS-PL. Children's anxiety symptoms were assessed using the Screen for Child Anxiety Related Emotional Disorders (SCARED), a self-report measure of non-PTSD anxiety.[21] Children's depressive symptoms were assessed using the Children's Depression Inventory.[22] Children's total behavior problems were assessed using the Child Behavior Checklist, a parent-report instrument.[23] Cognitive functioning was assessed using the Kaufman Brief Intelligence Test, a brief measure of verbal and nonverbal intelligence.[24]

Demographic information was obtained using a structured questionnaire administered to mothers by the project coordinator. Each week, mothers provided information about how much contact the child had with the IPV perpetrator during the previous week.

STATISTICAL ANALYSES

The initial power analysis used 2-sided tests of size $\alpha = .05$ requiring a power of 0.80, and a minimum correlation of 0.30 between pretest and posttest scores and determined that 30 children were needed in each treatment group to detect a medium effect size of $d = 0.50$. We determined that 60 children in each group would be needed to evaluate the impact of potential mediating factors. All statistical analyses were conducted using a software program (SAS; SAS Institute Inc, Chicago, Illinois). For dropouts, ITT analyses using LOCF were conducted. Comparison of all the participants in the 2 groups was conducted by computing mean differences between the 2 groups and confidence intervals (CIs) for each instrument. Effect sizes were calculated to assess the magnitude of intervention effects. As sensitivity analyses, a mixed model with a random effect for family was used to account for a sibling-sibling correlation and fixed effects for age, sex, race, and therapist and their interactions to ascertain whether these characteristics moderated responses to treatment. Parallel analyses were conducted for the 75 treatment completers. Given the large number of dropouts, multiple imputation analyses were also conducted using the MIANALYZE procedure in SAS (SAS, Inc, Cary, North Carolina). We included demographic variables (age, sex, and race) as covariates for 100 imputations for each outcome. Comparisons of demographics and scores of treatment dropouts vs completers were also conducted. A z test was used to compare differences in serious adverse events between the 2 completer groups. The χ^2 test was calculated for remission of PTSD diagnosis between the groups from pretreatment to posttreatment.

RESULTS

BASELINE CHARACTERISTICS

At baseline, the 2 treatment groups did not differ significantly regarding demographic characteristics or initial scores on assessment measures as given in **Table 1**.

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Table 1. Baseline Characteristics of the 124 Participants

Variable	TF-CBT (n=64)	CCT (n=60)	Total (N=124)
Sex, No. (%)			
Male	29 (45.3)	32 (53.3)	**61** (49.2)
Female	35 (54.7)	28 (46.7)	**63** (50.8)
Age, mean (SD), y	9.61 (2.71)	9.68 (2.22)	9.64 (2.46)
Race, No. (%)			
White	29 (45.3)	40 (66.7)	**69** (55.6)
Black	26 (40.6)	15 (25.0)	**41** (33.1)
Biracial	9 (14.1)	5 (8.3)	**14** (11.3)
IPV duration, No. (%)			
<2 y	4 (6.2)	2 (3.3)	**6** (4.8)
2-5 y	18 (28.1)	5 (8.3)	**23** (18.5)
>5 y	42 (65.6)	53 (88.3)	**95** (76.6)
Most severe IPV type, No. (%)			
Threatened physical	7 (10.9)	7 (11.7)	**14** (11.3)
Physical	57 (89.1)	53 (88.3)	**110** (88.7)
Past trauma experiences, No. (%)[a]			
Car accident	12 (18.8)	6 (10.0)	**18** (14.5)
Other accident	26 (40.6)	21 (35.0)	**47** (37.9)
Fire	8 (12.5)	7 (11.7)	**15** (12.1)
Disaster	6 (9.4)	5 (8.3)	**11** (8.9)
Witness to violent crime	17 (26.6)	12 (20.0)	**29** (23.4)
Victim of violent crime	12 (18.8)	10 (16.7)	**22** (17.7)
Traumatic death	33 (51.6)	37 (61.7)	**70** (56.5)
Physical abuse	23 (35.9)	21 (35.0)	**44** (35.5)
Sexual abuse	7 (10.9)	3 (5.0)	**10** (8.1)
Other	28 (43.8)	26 (43.3)	**54** (43.5)
Types of trauma, mean, No.	3.56	3.75	3.65
Contact with IPV perpetrator during treatment, No. (%)[b]			
Any contact	36 (56.2)	31 (51.7)	**67** (54.0)
<24 h/wk	17 (26.6)	16 (26.7)	**33** (26.6)
24-168 h/wk	14 (21.9)	11 (18.3)	**25** (20.2)
Lives with perpetrator	5 (7.8)	4 (6.7)	**9** (7.3)
No contact	11 (17.2)	7 (11.7)	**18** (14.5)
No information	17 (26.6)	22 (36.7)	**39** (31.5)
Trauma reported during treatment, No. (%)[c]			
Yes	32 (50.0)	18 (30.0)	**50** (40.3)
No	11 (17.2)	13 (21.7)	**24** (19.4)
IPV	9 (14.1)	8 (13.3)	**17** (13.7)
No information	21 (32.8)	29 (48.3)	**50** (40.3)

Abbreviations: CCT, child-centered therapy; IPV, intimate partner violence; TF-CBT, trauma-focused cognitive behavior therapy.

[a] According to the Kiddie Schedule for Affective Disorders and Schizophrenia, Present and Lifetime Version at pretreatment among all intent-to-treat participants.

[b] Among all participants according to weekly maternal report. Among treatment completers, 55 (73.3%) had contact with the IPV perpetrator during treatment.

[c] According to the Kiddie Schedule for Affective Disorders and Schizophrenia, Present and Lifetime Version at posttreatment (percentage reported in intent-to-treat sample).

Dropouts did not differ from treatment completers regarding demographics or initial scores on outcome measures except that race differed significantly between dropouts and completers (**Table 2**).

ITT ANALYSES

The results of the ITT LOCF mixed-model analyses including the effects of family, age, sex, and race were similar to those of the simpler ITT analysis without these covariates. We therefore report the results of the more parsimonious model using LOCF for all dropouts. The TF-CBT group experienced significantly greater improvement than did the CCT group in K-SADS-PL total score (mean difference, 1.63; 95% CI, 0.44 to 2.82), RI score (mean difference, 5.5; 95% CI, 1.37 to 9.63), K-SADS-PL hyperarousal score (0.71, 95% CI, 0.22 to 1.20), K-SADS-PL avoidance score (0.55; 0.07 to 1.03), and SCARED score (mean difference, 5.13; 95% CI, 1.31 to 8.96) (**Table 3**). The multiple imputation results confirmed these findings for K-SADS-PL total score (–1.76; 0.08 to 3.44), K-SADS-PL hyperarousal score (0.86; 0.13 to 1.58), and SCARED score (6.42; 0.17 to 12.66).

Table 2. Demographics and Initial Scores of Dropouts and Completers

Variable	Dropouts Before Tx (n=18)	Dropouts During Tx (n=31)	All Dropouts (n=49)	Tx Completers (n=75)
Age, mean (SD), y	9.50 (2.04)	10.10 (2.15)	9.88 (2.11)	9.49 (2.24)
Sex, No. (%)				
Male	9 (50.0)	15 (48.4)	**24** (49.0)	37 (49.3)
Female	9 (50.0)	16 (51.6)	**25** (51.0)	38 (50.7)
Race, No. (%)[a]				
White	6 (33.3)	12 (38.7)	**18** (36.7)	51 (68.0)
Black	8 (44.4)	11 (35.5)	**19** (38.8)	22 (29.3)
Biracial	4 (22.2)	8 (25.8)	**12** (24.5)	2 (2.7)
IPV duration, No. (%)				
<2 y	1 (5.6)	2 (6.5)	**3** (6.1)	3 (4.0)
2-5 y	2 (11.1)	5 (16.1)	**7** (14.3)	16 (21.3)
>5 y	15 (83.3)	24 (77.4)	**39** (79.6)	56 (74.7)
Most severe IPV type, No. (%)				
Threatened physical	1 (5.6)	4 (12.9)	**5** (10.2)	9 (12.0)
Physical	17 (94.4)	27 (87.1)	**44** (89.8)	66 (88.0)
Initial scores, mean (SD)				
K-SADS-PL-R	3.67 (1.28)	3.71 (1.40)	3.69 (1.34)	3.92 (1.35)
K-SADS-PL avoidance	2.83 (1.29)	2.90 (0.98)	2.88 (1.09)	3.05 (1.11)
K-SADS-PL hyper-arousal	3.72 (1.27)	3.84 (1.19)	3.80 (1.15)	3.55 (1.18)
K-SADS-PL total	10.22 (2.67)	10.45 (2.91)	10.37 (2.80)	10.52 (2.61)
RI	28.44 (21.45)	37.29 (18.84)	34.04 (20.09)	29.11 (17.45)
SCARED	24.94 (16.63)	29.19 (17.92)	27.63 (17.41)	29.28 (17.63)
CDI	11.06 (10.70)	12.81 (9.20)	12.16 (9.70)	10.25 (8.10)
CBCL	56.11 (26.02)	46.74 (22.49)	50.18 (24.01)	48.24 (27.46)
KBIT	100.72 (11.22)	97.35 (14.94)	98.59 (13.67)	104.25 (15.90)

Abbreviations: CBCL, Child Behavior Checklist; CDI, Children's Depression Inventory; IPV, intimate partner violence; KBIT, Kaufman Brief Intelligence Test; K-SADS-PL, Kiddie Schedule for Affective Disorders and Schizophrenia, Present and Lifetime Version; K-SADS-PL-R, Kiddie Schedule for Affective Disorders and Schizophrenia, Present and Lifetime Version, Reexperiencing subscale; RI, University of California at Los Angeles PTSD Reaction Index; SCARED, Screen for Child Anxiety Related Emotional Disorders; Tx, treatment.

[a] $\chi^2 < .001$.

COMPLETER ANALYSES

The results of the mixed-model analysis were similar to those of the analysis without these covariates. We, therefore, report the results for the more parsimonious model. Children completing TF-CBT had significantly greater improvement than did children completing CCT in K-SADS-PL total score (1.67; –0.08 to 3.4) and RI score (–7.58; –0.79 to –14.38) and in K-SADS-PL hyperarousal score (–0.81; –0.03 to –1.59) and anxiety score (–7.36; –1.06 to –13.67).

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Table 3. Intent-to-Treat Analyses of Change Scores Using LOCF and MI[a]

Outcome	Pretreatment Score, Mean (SD)		LOCF			MI		
			Change Score, Mean (SD)		Difference in Change Scores, 95% CI	Change Score, Mean (95% CI)		Difference in Change Scores, 95% CI
	TF-CBT (n=64)	CCT (n=60)	TF-CBT	CCT		TF-CBT	CCT	
K-SADS-PL-R	3.97 (1.45)	3.68 (1.23)	−1.17 (1.75)	−0.8 (1.40)	−0.20 to 0.94	−1.73 (−2.30 to −1.15)	−1.49 (−2.07 to −0.92)	−0.59 to 1.06
K-SADS-PL avoidance	3.05 (0.97)	2.92 (1.24)	−0.95 (1.20)	−0.40 (1.51)	0.07 to 1.03[b]	−1.49 (−1.96 to −1.03)	−0.75 (−1.35 to −0.16)	−0.02 to 1.50
K-SADS-PL hyperarousal	3.77 (1.08)	3.52 (1.26)	−1.19 (1.42)	−0.48 (1.31)	0.22 to 1.20[c]	−1.83 (−2.31 to −1.35)	−0.97 (−1.51 to −0.43)	0.13 to 1.58[b]
K-SADS-PL total	10.78 (2.55)	10.12 (2.78)	−3.31 (3.48)	−1.68 (3.22)	0.44 to 2.82[c]	−5.00 (−6.10 to −3.89)	−3.24 (−4.49 to −1.98)	0.08 to 3.44[b]
RI	33.13 (17.77)	29.36 (19.15)	−7.16 (13.52)	−1.66 (9.14)	1.37 to 9.63[c]	−11.74 (−16.11 to −7.37)	−6.06 (−10.89 to −1.23)	−0.68 to 12.04
CDI	11.35 (8.56)	10.68 (9.07)	−2.44 (6.02)	−1.03 (3.89)	−0.41 to 3.23	−4.23 (−6.26 to −2.20)	−2.82 (−4.99 to −0.65)	−1.48 to 4.30
SCARED	31.24 (16.67)	26.85 (17.62)	−6.66 (12.58)	−1.53 (8.37)	1.31 to 8.96[c]	−10.58 (−14.92 to −6.23)	−4.16 (−8.57 to 0.24)	0.17 to 12.66[b]
CBCL	45.75 (25.84)	52.48 (26.07)	−8.78 (19.98)	−10.12 (20.45)	−8.53 to 5.85	−15.67 (−23.77 to −7.58)	−20.76 (−29.95 to −12.28)	−16.90 to 6.70
KBIT	100.13 (15.14)	104.03 (15.31)	7.55 (16.05)	1.38 (8.11)	−10.73 to −1.61	9.50 (2.29 to 16.72)	−0.17 (−9.14 to 8.81)	−21.23 to 1.89

Abbreviations: CBCL, Child Behavior Checklist; CCT, child-centered therapy; CDI, Children's Depression Inventory; CI, confidence interval; KBIT, Kaufman Brief Intelligence Test; K-SADS-PL, Kiddie Schedule for Affective Disorders and Schizophrenia, Present and Lifetime Version; K-SADS-PL-R, Kiddie Schedule for Affective Disorders and Schizophrenia, Present and Lifetime Version, Reexperiencing subscale; LOCF, last observation carried forward; MI, multiple imputation; RI, University of California at Los Angeles Posttraumatic Stress Disorder Reaction Index; SCARED, Screen for Child Anxiety Related Emotional Disorders; TF-CBT, trauma-focused cognitive behavior therapy.

[a] Clinically significant scores: K-SADS-PL-R, 1; K-SADS-PL avoidance, 3; K-SADS-PL hyperarousal, 2; K-SADS-PL total, 6; RI, 38, CDI; 13; SCARED, 24; CBCL, 37 for girls and 38 for boys; KBIT, less than 80.

[b] $P < .05$.

[c] $P \leq .01$.

In addition to the previous statistical analyses, clinically significant findings include the following: (1) the number of children receiving TF-CBT meeting the K-SADS-PL PTSD diagnosis from pretreatment to posttreatment decreased from 32 to 8 (75% remission), whereas in children receiving CCT, this number decreased from 18 to 10 (44% remission, $\chi^2=4.67$, $P=.03$); (2) mean scores for the TF-CBT group moved from the clinical range to the reference range on the SCARED and the Child Behavior Checklist while remaining in the clinical range on these measures for the CCT group; and (3) by the end of treatment, significant differences in race were found between the treatment groups, with the CCT group having significantly fewer black participants than the TF-CBT group ($P=.001$; effect size, 0.32). Outcomes did not differ according to race.

Serious adverse events included serious physical IPV, reportable episodes of child abuse, child self-injury, and other serious problems requiring psychiatric hospitalization. More serious adverse events were reported in CCT completers (10 of 32) than in TF-CBT completers (2 of 43). This difference was significant ($z=2.9$, $P<.005$).

COMMENT

This is the first study, to our knowledge, to document significant improvement of children's and adolescents' IPV-related PTSD and anxiety symptoms using brief community TF-CBT compared with usual community treatment.

The superior improvement in PTSD symptoms in the TF-CBT group relative to the CCT group was driven by greater decreases in hyperarousal and avoidance symptoms rather than by differential improvement in reexperiencing symptoms. This makes sense in light of many participants' ongoing IPV and trauma exposure and how the TF-CBT intervention was applied for this cohort. Revisions to the TF-CBT model focused on how children could feel safer in the face of ongoing danger; for example, differentiating between real and generalized fears, learning safety and relaxation strategies, and talking directly to the mother about IPV experiences. These interventions may have been particularly effective for hyperarousal symptoms, such as generalized vigilance, irritability, difficulty sleeping, and anger, and for decreasing avoidance about talking about IPV experiences with the mother. It may not have been reasonable to expect significant decreases in intrusive trauma-related thoughts when these children had such high rates of contact with IPV perpetrators and high repeated trauma exposure (eg, among treatment completers, 89% reported contact with IPV perpetrators and 66% experienced new traumas during treatment). Some avoidance (eg, avoiding people or situations that remind the child of IPV) might have been adaptive or part of the child's safety plan when the IPV perpetrator was present.

The high dropout rate (39.5%) limits the internal validity of the study; however, in light of typical dropout rates in child community mental health settings,[25] this finding may conversely support the project's external validity. The minimal exclusionary criteria (eg, not excluding mothers with substance abuse or mental illness other than psychosis) in an attempt to be maximally inclusive and representative may have contributed to the high dropout rate. Participants faced highly challenging circumstances, including multiple traumas occurring during therapy, potential homelessness, violence from the IPV perpetrator, and serious legal and financial difficulties.[9-12,14] In this context, child mental health treatment could rightfully be seen as a lower priority than ensuring safety, housing, and other necessities. Including fami-

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lies with known ongoing perpetrator contact (even those who acknowledged cohabiting with the IPV perpetrator) and ongoing IPV and other trauma exposure was integral to evaluating whether brief TF-CBT could work for children in a "real-world" IPV setting. Other potential limitations included the lack of a no-treatment control and the inability to generalize the effectiveness of TF-CBT to settings that lack the ancillary services offered at the WCS.

Although TF-CBT resulted in statistically and clinically significant improvement compared with usual WCS treatment, improvement was modest relative to that in previous TF-CBT studies for children experiencing sexual abuse and multiple traumas.[2,26] Families' time-limited contact with the WCS required abbreviated treatment, which may have been suboptimal for some children. The ongoing violence exposure experienced by participating families emphasizes the significant challenges of treating PTSD in these young people's lives.

Despite these significant limitations, the project documented the success of implementing TF-CBT for multiply traumatized, IPV-exposed children in a usual community setting. More research is needed to address optimal treatment for children traumatized by the ongoing threat or reality of IPV.

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Author Contributions: Dr Cohen had full access to all the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analyses. *Study concept and design:* Cohen and Mannarino. *Acquisition of data*: Cohen and Mannarino. *Analysis and interpretation of data:* Cohen, Mannarino, and Iyengar. *Drafting of the manuscript*: Cohen, Mannarino, and Iyengar. *Critical revision of the manuscript for important intellectual content:* Cohen and Mannarino. *Statistical analysis:* Iyengar. *Obtained funding*: Cohen and Mannarino. *Administrative, technical, and material support:* Cohen and Mannarino. *Study supervision:* Cohen and Mannarino.
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