Prevention of Traumatic Stress in Mothers of Preterms: 6-Month Outcomes

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KEY WORDS

neonatal intensive care, premature infants, posttraumatic stress disorder, intervention, PTSD, preterm infants, neonatal ICU, intervention

ABBREVIATIONS

ASD—acute stress disorder
BAI—Beck Anxiety Inventory
BDI-II—the Beck Depression Inventory II
CBT—cognitive behavior therapy
DSM-IV-TR—*Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision*
DTS—Davidson Trauma Scale
MINI—Mini-International Neuropsychiatric Interview
PSS:NICU—Parental Stressor Scale: NICU
PTSD—posttraumatic stress disorder
SASRQ—Stanford Acute Stress Reaction Questionnaire

Dr Shaw conceptualized and designed the study and drafted the initial manuscript; Dr St John contributed to the manual development, supervised the infant sessions, and reviewed and revised the manuscript; Ms Lilo contributed to the manual development, coordinated and supervised the data collection, and reviewed and revised the manuscript; Dr Jo participated in the grant application, carried out and drafted the data analysis, and reviewed and revised the manuscript; Dr Benitz facilitated the implementation of the study and reviewed and revised the manuscript; Dr Stevenson participated in the planning of study, facilitated the implementation of the study, and reviewed and revised the manuscript; Dr Horwitz conceptualized and designed the study and reviewed and revised the manuscript; and all authors approved the final manuscript as submitted.

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WHAT'S KNOWN ON THIS SUBJECT: Interventions based on principles of trauma-focused cognitive behavior therapy have been shown to reduce symptoms of trauma and depression in mothers of premature infants. It is not known whether these benefits are sustained at long-term follow-up.

WHAT THIS STUDY ADDS: A brief, cost-effective 6-session manualized intervention for parents of infants in the NICU was effective in reducing symptoms of parental trauma, anxiety, and depression at 6-month follow-up. There were no added benefits from a 9-session version of the treatment.

abstract

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OBJECTIVE: Symptoms of posttraumatic stress disorder are a well-recognized phenomenon in mothers of preterm infants, with implications for maternal health and infant outcomes. This randomized controlled trial evaluated 6-month outcomes from a skills-based intervention developed to reduce symptoms of posttraumatic stress disorder, anxiety, and depression.

METHODS: One hundred five mothers of preterm infants were randomly assigned to (1) a 6- or 9-session intervention based on principles of trauma-focused cognitive behavior therapy with infant redefinition or (2) a 1-session active comparison intervention based on education about the NICU and parenting of the premature infant. Outcome measures included the Davidson Trauma Scale, the Beck Depression Inventory II, and the Beck Anxiety Inventory. Participants were assessed at baseline, 4 to 5 weeks after birth, and 6 months after the birth of the infant.

RESULTS: At the 6-month assessment, the differences between the intervention and comparison condition were all significant and sizable and became more pronounced when compared with the 4- to 5-week outcomes: Davidson Trauma Scale (Cohen's $d = -0.74$, $P < .001$), Beck Anxiety Inventory (Cohen's $d = -0.627$, $P = .001$), Beck Depression Inventory II (Cohen's $d = -0.638$, $P = .002$). However, there were no differences in the effect sizes between the 6- and 9-session interventions.

CONCLUSIONS: A brief 6-session intervention based on principles of trauma-focused cognitive behavior therapy was effective at reducing symptoms of trauma, anxiety, and depression in mothers of preterm infants. Mothers showed increased benefits at the 6-month follow-up, suggesting that they continue to make use of techniques acquired during the intervention phase. *Pediatrics* 2014;134:e481–e488

Although survival rates for premature infants (<32 weeks' gestation) have improved dramatically in the past 10 years,¹ parents, particularly mothers, continue to have very high rates of psychological distress beyond those observed in parents of full-term infants.² In addition to high rates of depression,^{3–5} researchers have identified acute stress disorder (ASD) and posttraumatic stress disorder (PTSD) as features of parental psychological reactions.^{6–12} To date, interventions developed to reduce psychological distress in parents of preterm infants have been primarily supportive or educational in nature.^{13–15} More recently, a small number of studies have evaluated intervention programs focused on reducing parental stress¹⁶ and trauma symptoms.¹⁷

Recently, we reported findings from a randomized controlled trial of a 6-session, skills-based intervention developed to reduce symptoms of parental depression, anxiety, and trauma in parents of preterm infants.¹⁸ Mothers in the intervention group reported a greater reduction in both trauma symptoms and depression but not anxiety compared with the comparison group immediately postintervention. The intervention, which incorporated components of trauma-focused cognitive behavior therapy (CBT), was found to be feasible and easily delivered in the NICU environment and received high ratings of maternal satisfaction.¹⁹ However, whether these symptomatic benefits continue after the infants return home is unknown. In this report, we describe the 6-month follow-up outcome data of our study participants and hypothesize that mothers in the intervention group will continue to show statistically significant reductions in symptoms of trauma, anxiety, and depression compared with mothers in the comparison group. In addition, we hypothesize that a subset of mothers who

receive 3 additional sessions specifically developed to target trauma and parenting issues will report additional benefits compared with the group receiving the 6-session intervention.

METHODS

Participants

Participants were mothers of premature infants hospitalized in 1 of the 4 participating NICUs affiliated with Lucile Packard Children's Hospital in northern California who had developed symptoms of trauma, anxiety, or depression related to their traumatic experience of their infant's preterm birth and NICU hospitalization. The demographic and clinical information collected at baseline has been previously described (Table 1). Inclusion criteria were as follows: (1) English- or Spanish-speaking mothers >18 years of infants aged 25 to 34 weeks weighing >600 g and born at or transferred to 1 of 4 four participating NICUs within the first week of delivery; (2) mothers who scored above the clinical cutoff on 1 of 3 screening instruments administered at baseline, the Beck Anxiety Inventory (BAI),²⁰ the Beck Depression Inventory II (BDI-II),²¹ and the Stanford Acute Stress Reaction Questionnaire (SASRQ).²² Exclusion criteria were (1) mothers of children with developmental abnormalities or awaiting cardiac surgery and those assessed as being unlikely to survive and (2) mothers with psychotic symptoms or suicidal/infanticidal ideation.

Procedure

The Stanford University Institutional Review Board approved the protocol. After receiving written informed consent, participants completed an intake assessment that included screening for clinically significant symptoms of ASD (SASRQ score ≥ 3 for the required number of questions in ≥ 2 of the

symptom categories), depression (BDI-II score ≥ 20), and anxiety (BAI score ≥ 16). Participants meeting the cutoff on ≥ 1 of these measures were invited to participate in the intervention. A random-number generator was used to assign eligible participants, unblinded, to either (1) 6 or 9 sessions of the manualized treatment intervention or (2) an active comparison group. The intervention lasted 3 to 4 weeks with one or two 45- to 55-minute sessions administered weekly. Participants in both conditions were assessed at baseline (1–2 weeks after the birth of the infant), 1 week after the completion of the first 6 sessions of the intervention or 4–5 weeks postbirth for the comparison group, and 6 months after the birth of the infant for the 6-session, 9-session, and comparison groups. Recruitment and delivery of the intervention took place between July 1, 2011, and December 31, 2012 (Fig 1). Data collection was completed on May 30, 2013.

Measures

Traumatic Events Questionnaire

The Traumatic Events Questionnaire,²³ an 11-item questionnaire administered at baseline, assesses specific trauma experiences capable of eliciting post-traumatic stress symptoms. The 2-week test-retest reliability for number of events is 0.91 and for specific events is 0.72 to 1.0.

Davidson Trauma Scale

The Davidson Trauma Scale (DTS),⁴ a 17-item scale administered at baseline and follow-up, assesses *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision* (DSM-IV-TR), symptoms of PTSD. The scale has solid test-retest reliability ($R = 0.86$) and good internal consistency (Cronbach's $\alpha = 0.99$). In our own sample, the internal consistency estimate of the DTS is 0.93. At a score of 4, the DTS achieves

TABLE 1 Demographic and Baseline Clinical Characteristics

Characteristics	Intervention (n = 62)	Comparison (n = 43)	Group Difference
DTS, mean (SD)	49.40 (25.49)	42.35 (27.05)	t(103) = 1.360, P = .177
BDI-II, mean (SD)	20.60 (9.48)	17.49 (10.68)	t(103) = 1.568, P = .120
BAI, mean (SD)	21.97 (11.83)	20.30 (12.49)	t(103) = 0.693, P = .490
Infant gestational age, mean (SD), wk	30.90 (3.00)	31.56 (2.60)	t(103) = 1.161, P = .248
Infant severity score, mean (SD)	0.047 (0.05)	0.034 (0.03)	t(103) = 1.438, P = .154
Mother's age, mean (SD), y	33.76 (6.25)	30.70 (5.50)	t(103) = 2.590, P = .011
Mother's education less than college degree, n (%)	19 (30.6)	19 (44.2)	$\chi^2(1) = 2.016$, P = .156
Mother's race: white (vs nonwhite), n (%)	42 (67.7)	22 (51.2)	$\chi^2(1) = 2.932$, P = .087
Mother's ethnicity: Hispanic (vs non-Hispanic), n (%)	16 (25.8)	14 (32.6)	$\chi^2(1) = 0.567$, P = .451
Mother is US-born, n (%)	37 (59.7)	23 (53.5)	$\chi^2(1) = 0.397$, P = .529
Married/partnered (vs single/divorced), n (%)	58 (93.5)	43 (100)	$\chi^2(1) = 2.884$, P = .089
Household income, n (%) ^a			
<\$50 000	15 (25.0)	9 (25.7)	$\chi^2(1) = 0.006$, P = .938
\$50 000–\$99 000	10 (16.7)	5 (14.3)	$\chi^2(1) = 0.094$, P = .759
≥\$100 000	35 (58.3)	21 (60.0)	$\chi^2(1) = 0.025$, P = .873
Interview language in English (vs Spanish), n (%)	55 (88.7)	37 (86.0)	$\chi^2(1) = 0.166$, P = .684
Traumatic Events Questionnaire yes, n (%)	31 (50.0)	14 (32.6)	$\chi^2(1) = 3.154$, P = .076
SASRQ yes, n (%)	56 (90.3)	40 (93.0)	$\chi^2(1) = 0.236$, P = .627
PSS:NICU, mean (SD)			
Global index	3.02 (0.72)	2.65 (0.86)	t(103) = 2.369, P = .020
Sights and sounds of the NICU	2.88 (0.84)	2.66 (1.12)	t(103) = 1.150, P = .253
Infant behavior and appearance	3.12 (0.96)	2.58 (1.00)	t(103) = 2.794, P = .006
Alteration in parental role	3.86 (0.82)	3.48 (1.11)	t(103) = 2.012, P = .047
MINI, n (%)			
Major depressive episode, current	51 (82.3)	36 (83.7)	$\chi^2(1) = 0.038$, P = .845
Dysthymia	2 (5.4)	1 (3.4)	$\chi^2(1) = 0.144$, P = .705
Anxiety disorder, current	7 (11.3)	2 (4.7)	$\chi^2(1) = 1.428$, P = .232

N = 105.

^a Ten individuals (8 control, 2 intervention) with missing income information were not included.

an 83% diagnostic accuracy with the Structured Clinical Interview for DSM-IV Axis I Disorders.

SASRQ

The SASRQ,²² a 30-item self-report questionnaire used to assess DSM-IV-TR symptoms of ASD, was administered at baseline. Psychometric properties of the SASRQ show good internal consistency, test-retest reliability, and predictive validity. In our sample, the internal consistency estimate of the SASRQ was 0.91.

Parental Stressor Scale: NICU

The Parental Stressor Scale: NICU (PSS: NICU),²⁵ a 34-item scale administered

at baseline, evaluates parental perceptions of the stressors due to the infant's NICU stay in 3 areas: physical environment of the NICU, infant's behavior/appearance, and alterations in parental role. The PSS:NICU is internally consistent (Cronbach's $\alpha > 0.70$ for all scales). In our sample, the internal consistency estimate of the PSS:NICU was 0.94.

BDI-II

The BDI-II,²¹ a 21-item questionnaire administered at baseline and follow-up, assesses depressive symptoms with a reliability of 0.92. In our sample, the internal consistency estimate of BDI-II was 0.88.

BAI

The BAI,²⁰ a 21-item self-report measure administered at baseline and follow-up, assesses symptoms of anxiety. The scale has good internal consistency and a 1-week test-retest reliability of 0.75. In our sample, the internal consistency estimate of the BAI was 0.90.

Mini-International Neuropsychiatric Interview

The Mini-International Neuropsychiatric Interview (MINI),²⁶ a structured interview diagnosis administered at baseline and follow-up, was used to establish the DSM-IV-TR diagnoses of major depressive episode, any anxiety disorder, and PTSD. A multicenter study that compared the diagnoses by general practitioners obtained by using the MINI with the diagnoses obtained by psychiatrists using nonstructured interviews found a κ coefficient between 0.41 and 0.68, sensitivity between 0.41 and 0.86, and specificity between 0.84 and 0.97.

Illness Health Severity Index

A probability of death index (range: 0–1) was calculated by using a multivariable risk adjustment model, designed to capture important factors related to patient risk based on the Vermont Oxford Network model^{27,28} by using modifications tailored to the California Perinatal Quality Care Collaborative data. The model includes terms for gestational age, gestational age squared, race, gender, location of birth, multiple birth, prenatal care, 5-minute Apgar score, small size for gestational age (lowest 10th percentile), major birth defect, and California Children's Services NICU level. The California Children's Services NICU level is determined in the California Perinatal Quality Care Collaborative database by using a regional NICU comparison chart.

FIGURE 1
CONSORT Diagram.

Intervention

The development and content of the 6-session treatment manual, which includes components of trauma-focused CBT and infant redefinition, have been previously described.¹⁹ An additional 3 sessions were developed for a subset of the intervention group, with content directed at identifying triggers associated with the development of parental trauma symptoms as well as education about parenting patterns associated with the aspects of the vulnerable child syndrome.²⁹ Participants in the information/usual-care comparison group received one 45-minute information

session on the policy, procedures, and environment of the NICU, with education about parenting the premature infant. Mothers were referred to the existing parent mentor program for support and coping strategies to help ensure that the contact was similar to the intervention group and would approximate an attention-matched comparison condition. Mothers also received usual NICU care including contacts with social workers, chaplaincy, and developmental psychologists.

Analyses

For sample descriptive statistics, means and SDs were used to summarize

continuous variables, whereas counts and proportions were used to summarize categorical measures. Two-sample *t* tests (for continuous variables) and χ^2 tests (for categorical variables) were used to compare baseline measures across the intervention and comparison groups (2-sided, $\alpha = 0.05$). Standard linear mixed-effects modeling^{30,31} was used to model longitudinal trajectories of main outcomes from the baseline to postintervention to 6-month assessments. Specifically, we used a random intercept model assuming a quadratic trend over time. In line with the intention-to-treat principle, we included all randomly assigned individuals in the analyses for whom data were available from at least 1 of the 3 assessments. Data points that were not available were treated as missing at random, conditional on observed information using a maximum likelihood estimation.³² All 105 individuals randomly assigned to either the intervention ($n = 62$) or to the comparison condition ($n = 43$) were included in the mixed-effects modeling because all of them had the baseline data available. Within the group of 62 participants in the intervention group, 28 received 9 sessions and 34 received 6 sessions. The retention rate was high in all groups. By the postintervention assessment, there were 5 dropouts (8%) who were assigned to the intervention and 2 dropouts (5%) who were assigned to the comparison group. By the 6-month assessment, there were 5 dropouts (8%) who were assigned to the intervention and 5 dropouts (12%) who were assigned to the comparison group. We incorporated the MacArthur framework^{33,34} in this longitudinal modeling framework for our exploratory moderator/mediator analysis. The Mplus³⁵ program version 7.11 was used to conduct the maximum likelihood estimation for all of the longitudinal mixed-effects analyses.

RESULTS

Baseline Characteristics

Baseline demographic characteristics and clinical features of mothers and infants, which have been previously described, are presented in Table 1.¹⁸ There were no statistical differences between the intervention and comparison groups on most baseline variables including maternal ratings of trauma (SASRQ and DTS), anxiety (BAI), and depression (BDI-II); previous trauma history (Traumatic Events Questionnaire); and current psychiatric diagnoses of major depression, dysthymia, or anxiety assessed using the MINI Diagnostic Interview.

Primary Outcomes

We examined whether women in the intervention group were different from women in the information/usual services group in terms of trauma symptoms (DTS), depression (BDI), and anxiety (BAI) at the 6-month assessment. Figure 2 shows estimated longitudinal trajectories of primary (DTS) and secondary (BDI, BAI) outcomes based on mixed-effects modeling. All 3 outcomes declined more over time under the intervention condition compared with the comparison condition, resulting in more noticeable differences between the 2 groups by 6 months.

Table 2 summarizes the estimated intervention effects (group differences) on the basis of the longitudinal analyses shown in Fig 2. The postintervention 4- to 5-week outcomes, which have been previously reported, showed a significant effect of the intervention on symptoms of both trauma and depression but not for anxiety.¹⁸ At the 6-month assessment, the differences between the intervention and control condition became more pronounced with respect to trauma (DTS: Cohen's $d = -0.74$, $P < .001$), depression (DTS: Cohen's $d = -0.55$,

$P = .002$), and anxiety (DTS: Cohen's $d = -0.63$, $P = .001$). None of the 3 primary outcomes showed significant differences between the 6- and 9-session interventions at either the 1-month (DTS: Cohen's $d = 0.152$, $P = .483$; BDI-II: Cohen's $d = 0.354$, $P = .136$; BAI: Cohen's $d = 0.117$, $P = .664$) or 6-month (DTS: Cohen's $d = -0.184$, $P = .395$; BDI-II: Cohen's $d = -0.129$, $P = .615$; BAI: Cohen's $d = -0.179$, $P = .477$) follow-up.

Moderator Analysis

Eleven baseline variables (infant medical severity score, length of stay, Traumatic Events Questionnaire, NICU overall stress, major depressive episode current, education, maternal age, income, white/nonwhite, Hispanic, and US born) were examined as potential moderators of the intervention effect on the DTS by using analytical criteria consistent with the MacArthur approach.^{33,34} According to our mixed-effects modeling, where the key parameter of interest is the effect of interaction between the intervention status and a potential moderator on DTS at the 6-month assessment, none of the variables were identified as moderators. However, mother's education, race (white/nonwhite), and PSS-NICU score were found to be nonspecific predictors of the outcome. Less educated mothers ($P = .033$), white mothers ($P = .025$), and mothers with higher baseline NICU stress ($P < .001$) had lower DTS scores at the 6-month assessment irrespective of whether they were in the intervention or comparison group.

Mediator Analysis

We considered the possible role of mothers' use of psychotherapy after the intervention (but before the 6-month outcome assessment) as a potential mediator of the intervention effect. Approximately 25% of mothers

in each group self-reported the additional use of mental health services. However, the intervention had little impact on the mothers' use of psychotherapy (association between therapy use frequency and the intervention status: $r = 0.066$, $P = .526$); and as a result, mothers' use of psychotherapy did not meet the eligibility criteria for being a moderator.³⁴ This finding suggests that the observed decrease in symptoms is due to the direct effects of the intervention rather than any additional mental health services.

DISCUSSION

This is the first study to our knowledge to evaluate the reasonably long-term effects of an intervention based on principles of trauma-focused CBT in a sample of parents of premature infants. The intervention was found to have a significant and strong effect on maternal trauma symptoms ($d = -0.74$, $P < .001$) at the 6-month follow-up assessment in addition to sizable benefits with respect to symptoms of both anxiety and depression. Although Jotzo and Poets¹⁷ were able to show an effect on trauma pathology, their outcomes were short term; and whereas Kaarsen et al¹⁶ had longer-term outcomes, their intervention assessed parental stress not PTSD symptoms. Our data suggest that our manualized treatment intervention, which incorporates principles of psychoeducation, cognitive restructuring, and trauma exposure, is effective in reducing symptoms that occur in response to medical trauma, specifically for mothers who have experienced the trauma of preterm birth and NICU hospitalization.

Although our study included participants who did not meet full criteria for PTSD at the time of entry, our results are comparable to those of studies in individuals exposed to military and nonmedical civilian trauma. A recent Cochrane review³⁶ of early psychological

FIGURE 2

Estimated trajectories of primary and secondary outcomes based on longitudinal mixed-effects analysis ($n = 43$ for control and $n = 62$ for intervention). base, baseline; cont, control; int, intervention.

TABLE 2 Estimated Intervention Effects (Group Difference) at Postintervention (4–5 Weeks) and at 6-Month Assessment

	Postintervention (1 Month)	Follow-up (6 Months)
DTS		
Intervention effect	−7.347	−15.996
<i>P</i>	.041	<.001
95% CI	−14.394 to −0.301	−23.128 to −8.863
Effect size	−0.333	−0.741
BDI-II		
Intervention effect	−4.144	−5.119
<i>P</i>	.002	.002
95% CI	−6.826 to −1.463	−8.381 to −1.857
Effect size	−0.546	−0.638
BAI		
Intervention effect	−1.697	−5.308
<i>P</i>	.353	.001
95% CI	−5.275 to 1.881	−8.358 to −2.258
Effect size	−0.193	−0.627

Values are based on mixed-effects longitudinal analysis. Effect size represents estimated group difference/estimated SD of each outcome at postintervention and at 6-month assessment. CI, confidence interval.

interventions to treat acute traumatic stress symptoms found that trauma-focused CBT was superior to waiting list/usual care or supportive counseling in individuals who were symptomatic at the time of entry into the study in terms of a reduction in symptoms of PTSD, anxiety, and depression. However, 1 significant difference in the data from our study is that the magnitude of the effect size for the 6-month outcomes for PTSD and anxiety actually increased when compared with the 4- to 5-week outcomes. By contrast, Roberts et al³⁶ reported no strong effect of trauma-focused CBT in the studies that assessed participants at either 3 to 5 months or 12 to 18 months

after the intervention. Similarly, Kornør et al,³⁷ in a meta-analysis of early trauma-focused CBT to prevent chronic PTSD and related symptoms, found only 5 RCTs with outcome data >3 months posttreatment and that the efficacy of trauma-focused CBT compared with supportive counseling was significant only for only 1 research group at 3 to 6 months and with no differences found at 9 months or beyond. Our finding of increased benefits at the 6-month follow-up suggests that mothers, as they reported in exit interviews, continued to practice and make use of techniques acquired during the intervention phase to address their trauma and anxiety symptoms.

Findings from the study revealed no added benefit for mothers who received 9 rather than 6 sessions. The effect of length of treatment has also been evaluated in meta-analyses of trauma-focused CBT. Roberts et al³⁶ found that the effect size was reduced in studies that offered only 4 to 5 sessions of treatment. Although conventional trauma-focused CBT typically offers 12 to 16 sessions, the optimal length of the intervention has not been fully established. Data from our study suggest that it is possible to deliver the core components of the intervention in just 6 sessions, with no added benefits for additional sessions. By contrast, mothers in general reported greater satisfaction with the shorter treatment length in part due to the demands associated with having their infant in the NICU.

The moderator analysis revealed that no sociodemographic variables influenced the intervention response, suggesting that the intervention is useful for mothers of different ethnic backgrounds and socioeconomic status. Maternal ratings of baseline NICU stress, race, and mother's education were found to be nonspecific predictors of the outcome. Women with higher ratings of parental stress are more likely to show greater decline in DTS scores regardless of their

intervention status, suggesting perhaps that more highly stressed women were motivated to practice, and potentially benefit from, treatment or, for the comparisons, seek care for their symptoms. In addition, white mothers also showed greater decline in DTS scores, a finding we cannot fully explain, although it is possible that other factors (eg, differences in social support) may be implicated.³⁸ Finally, less educated mothers showed a greater decline in DTS scores irrespective of whether they were in the intervention or comparison group. It is possible that for less educated women, these techniques were novel and that, as a result, they practiced and made use of them

more frequently. Several limitations should be noted. First, our sample size was relatively small, and although representative of the population in our hospital catchment area, African-American mothers were underrepresented. However, although our sample was skewed toward mothers of high socioeconomic status, the moderator analysis did not show any effect of maternal age, education, income, or ethnicity in terms of response to the intervention. Second, results of the study are applicable only to the population of NICU mothers who screened positive for inclusion in the study and do not address potential needs of mothers who were not symptomatic

early in the course of their infants' hospitalization.

CONCLUSIONS

The results of the study reveal that (1) a brief intervention based on principles of trauma-focused CBT was effective at reducing symptoms of trauma, anxiety, and depression in a highly stressed population of mothers of preterm infants; (2) mothers showed increased benefits at the 6-month follow-up, suggesting that they continued to make use of techniques acquired during the intervention phase; and (3) there were no benefits from additional sessions beyond the original 6-session intervention.

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