

Effects of Cognitive–Behavioral Conjoint Therapy for PTSD on Partners’ Psychological Functioning

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A number of studies have documented that posttraumatic stress disorder (PTSD) symptoms in “one” partner are negatively associated with their intimate partner’s psychological functioning. The present study investigated intimate partners’ mental health outcomes (i.e., depression, anxiety, and anger) in a sample of 40 partners of individuals with PTSD within a randomized waitlist controlled trial of cognitive–behavioral conjoint therapy for PTSD (Monson & Fredman, 2012). There were no significant differences between active treatment and waitlist in intimate partners’ psychological functioning at posttreatment. Subgroup analyses, however, of partners exhibiting clinical levels of distress at pretreatment on several measures showed reliable and clinically significant improvements in their psychological functioning at posttreatment and no evidence of worsening. Results suggest that cognitive–behavioral conjoint therapy for PTSD may have additional benefits for partners presenting with psychological distress.

A growing body of literature documents associations between posttraumatic stress disorder (PTSD) and general psychological distress in intimate partners of individuals living with this condition (see Lambert, Engh, Hasbun, & Holzer, 2012 for a meta-analysis). Moreover, recent treatment innovations have begun to examine the involvement of close others in PTSD treatments (e.g., MacIntosh & Johnson, 2008; Monson, Fredman et al., 2012). Yet, in light of the known association between an individual’s PTSD symptoms and their intimate partner’s psychological functioning, existing studies have failed to consistently consider the effects of these treatments on

partners’ mental health, and the trials that have examined partners’ outcomes have reported mixed findings (Devilley, 2002; Monson et al., 2011; Monson, Stevens, & Schnurr, 2005; Sweany, 1987). Thus, it is important to determine if involving intimate partners in PTSD treatment leads to improvements in partners’ psychological functioning and to ensure that partners do not evidence worsening as a result of participating in these treatments. Therefore, the purpose of the current study was to examine the mental health outcomes of partners participating in a conjoint therapy for PTSD.

A number of studies have examined the psychological functioning of intimate partners of individuals with PTSD and the association of this functioning to PTSD symptomatology, mostly among military/veteran samples (e.g., Calhoun, Beckham, & Boswarth, 2002; Dekel, Solomon, & Bleich, 2005). For example, Calhoun et al. (2002) found that intimate partners of Vietnam combat veterans with PTSD reported higher levels of depressive and anxiety symptoms compared with partners of Vietnam combat veterans without PTSD, a finding that is supported by several other studies (Manguno-Mire et al., 2007; Westerink & Giarratano, 1999). In addition, these intimate partners have been shown to exhibit greater levels of hostility, higher rates of somatic complaints and sleep problems, lower levels of happiness and life satisfaction, higher levels of loneliness and social dysfunction, as well as a greater degree of general emotional distress in comparison with partners of

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individuals without PTSD (Calhoun et al., 2002; Dekel et al., 2005; Dirkzwager, Bramsen, Adèr, & van der Ploeg, 2005; Jordan et al., 1992; Waysman, Mikulincer, Solomon, & Weisenberg, 1993; Westerink & Giarratano, 1999).

Beyond the presence of greater psychological distress among partners of individuals with PTSD, research indicates that the degree of partners' psychological distress is positively associated with the severity of their partners' PTSD symptoms (Beckham, Lytle, & Feldman, 1996). A recent meta-analysis summarizing the literature on the strength of the association between individuals' PTSD symptoms and partners' psychological distress found that the association was of moderate size ($r = .30$; Lambert et al., 2012).

Treatment innovations for PTSD include the development of couple and family interventions for the condition. At present, seven uncontrolled (Cahoon, 1984; Devilly, 2002; MacIntosh & Johnson, 2008; Monson et al., 2011; Monson, Schnurr, Stevens, & Guthrie, 2004; Sautter, Glynn, Thompson, Franklin, & Han, 2009; Schumm, Fredman, Monson, & Chard, 2013) and three controlled (Glynn et al., 1999; Monson, Fredman et al., 2012; Sweany, 1987) trials have investigated the inclusion of family members into interventions for PTSD. Only four of these studies, however, have examined partners' psychological outcomes following these treatments (Devilley, 2002; Monson et al., 2011, 2005; Sweany, 1987).

In Devilly's (2002) uncontrolled study of a 5-day residential treatment program that included female partners of male Australian veterans, there were statistically significant, small-to-medium, within-group effect size improvements in partners' depression ($ds = 0.35-0.61$) and anxiety ($ds = 0.31-0.46$) scores at posttreatment, 3-month, and 6-month follow-up. Similarly, in Monson et al.'s (2004) uncontrolled trial of cognitive-behavioral conjoint therapy (CBCT) for PTSD (Monson & Fredman, 2012), Monson et al. (2005) found significant and large within-group effects for general anxiety ($d = 1.29$) and social functioning ($d = 1.61$) in a sample of wives of male Vietnam veterans. Although Monson and colleagues' (2011) uncontrolled trial of CBCT for PTSD in a community sample did not detect partner improvements with respect to depressive and anxiety symptoms, partners did show significant and large increases in anger expression across treatment ($d = -1.64$). The authors suggested that this increase in anger expression may be a product of partners' greater openness and ability to express their negative feelings as a result of treatment. Finally, in a sample of 14 combat-exposed Vietnam veterans and their partners, Sweany's (1987) controlled trial of behavioral couple therapy did not find statistically significant differences between the treatment and control conditions on significant others' depression scores at posttreatment.

Given the relatively few studies that have documented partners' mental health outcomes following couple/family interventions for PTSD and the inconsistencies in the available literature, additional research is needed to determine if these treatments might alleviate the distress commonly found in partners and ensure that they do not cause partners to worsen. Thus,

the current study sought to investigate the effects of CBCT for PTSD on partners' psychological functioning within a randomized controlled trial (Monson, Fredman et al., 2012). Based on prior studies, we hypothesized that compared with partners waiting for treatment, partners in the CBCT for PTSD condition would display significant improvements in their psychological functioning in the domains of depression, anxiety, and anger at posttreatment, and that these gains would be maintained at a 3-month follow-up assessment. We also hypothesized that partners whose self-report of symptoms was above clinical cut points on the psychological outcomes at pretreatment would evidence reliable and clinically significant improvements in their psychological functioning at posttreatment.

Method

Participants

Forty intimate couples that included one partner who met *Diagnostic and Statistical Manual of Mental Disorders (4th ed., text rev.; DSM-IV-TR*; American Psychiatric Association, 2000) criteria for PTSD were recruited from two study sites (a university-based clinical research center in Toronto, Ontario, Canada, and a VA outpatient mental health clinic in Boston, Massachusetts). To be eligible to participate, dyads had to each self-identify as an intimate couple and be between the ages of 18 and 75 years, with one partner meeting PTSD diagnostic criteria as determined by the Clinician-Administered PTSD Scale (CAPS; Blake et al., 1995) at least 3 months posttrauma. If the patient was prescribed psychoactive medications, the medication regimen had to be stable for at least 2 months prior to study participation and remain unchanged during the study period. Participants were not able to receive conjoint or individual psychotherapy for PTSD during the course of the study, but were allowed to receive psychotherapy for other disorders. Participants were excluded if they met diagnostic criteria for current substance dependence, uncontrolled psychotic disorder, or bipolar disorder according to the Structured Clinical Interview for DSM-IV-Patient Version (SCID-P; First, Spitzer, Gibbon, & Williams, 1995); if they were imminently suicidal or homicidal; or if they had engaged in self-injurious behavior within the past 6 months. Partners could not meet diagnostic criteria for current PTSD. In addition, couples were excluded if there was any severe physical or sexual aggression in the relationship within the past 12 months, which was assessed with the relevant subscales of the Revised Conflict Tactics Scales (Straus, Hamby, McCoy, & Sugarman, 1996). Of important note, intimate partners were not required to be in the distressed range on any measures of psychological functioning, nor were patients or partners required to have relationship adjustment scores in the distressed range.

The sample included 37 heterosexual couples and 3 same-sex female couples. The three same-sex female couples happened to be randomized to the CBCT for PTSD condition; consequently, there were fewer male partners randomized to CBCT

for PTSD compared with waitlist. On average, partners were 37.78 years old ($SD = 11.55$), 67.5% of partners were male, and 80.0% were Caucasian. One partner was a military veteran, and 65.0% of partners were employed at least part-time. On average, partners reported that their intimate relationships were 6.78 years ($SD = 7.61$) in length, and 32.5% of couples were married.

Twenty-five percent of partners met criteria for a current *DSM-IV-TR* Axis I disorder according to the SCID-P (mood: 7.5%; anxiety disorder excluding PTSD: 12.5%; substance abuse: 2.5%; other: 5.0%), and 70.0% of partners met criteria for a lifetime *DSM-IV-TR* Axis I disorder (mood: 52.5%; anxiety disorder excluding PTSD: 27.5%; substance abuse or dependence: 42.5%; other: 7.5%). Approximately 38.0% of partners reported using a mental health care resource; 22.5% reported a current stable psychotropic medication regimen, and 30.0% reported participating in current psychotherapy.

Patients with PTSD had experienced a wide range of index traumatic events including childhood and adulthood sexual assaults, intimate partner violence and other physical assaults, combat, and motor vehicle accidents. On average, patients with PTSD reported the time since trauma exposure to be 15.17 ($SD = 13.52$) years. Additional details regarding patients' trauma histories can be found in Monson, Fredman et al. (2012).

Procedure

Full details of the current study's procedure and participant flow can be found in Monson, Fredman et al. (2012). In brief, eligible couples were randomized to receive CBCT for PTSD immediately or to a waitlist condition. In addition to their pretreatment assessment, couples randomized to immediate CBCT for PTSD were assessed at midtreatment (after Session 7) and posttreatment (after Session 15), as well as at a 3-month follow-up. Couples randomized to the waitlist condition received CBCT for PTSD after approximately 12 weeks of waiting. In addition to their baseline assessment, waitlist couples were assessed at time points equivalent to the treatment-immediately condition's midtreatment (after 4 weeks of waiting) and posttreatment (after 12 weeks of waiting) assessments. Couples in the waitlist condition also participated in a final assessment after completing treatment.

CBCT for PTSD was administered by doctoral- or master's-level trained therapists. CBCT for PTSD is a 15-session conjoint treatment protocol designed to reduce PTSD symptoms and simultaneously enhance intimate relationship functioning. The treatment consists of three phases, with sessions in Phases 1 and 2 being delivered twice weekly and sessions in Phase 3 being delivered weekly. Phase 1 (Sessions 1–2) is aimed at explaining the rationale for treatment, delivering psychoeducation about PTSD and relationships, and establishing safety in the relationship. Phase 2 (Sessions 3–7) utilizes dyadic interventions directed at improving communication to enhance relationship satisfaction and PTSD-related emotional numbing. In addition, this phase has an emphasis on reducing individ-

ual and couple-level avoidance. Phase 3 (Sessions 8–15) has a focus on making meaning of the traumatic event by helping to put the trauma into context and modifying existing maladaptive beliefs relating to or emanating from the trauma. During this phase, cognitive change strategies are used to address maladaptive trauma-related cognitions and cognitions influencing relationship satisfaction. As reported in Monson, Fredman et al. (2012), treatment fidelity was established by a clinician expert in CBCT for PTSD who was independent of the study. Adherence to the essential elements of the CBCT for PTSD protocol was reported at 86.0% and average competence in providing these elements was strong, reported at 6.52 out of a 7-point scale (1 = *poor* and 7 = *excellent*).

Measures

Partner mental health diagnoses at pretreatment were established using the SCID-P (First et al., 1995), a semistructured clinical interview that assesses diagnostic criteria for a variety of mental disorders consistent with *DSM-IV-TR* criteria. As reported in Monson, Fredman et al., 2012, interrater reliability for the SCID-P was excellent ($\kappa = .71$ – 1.00) for all disorders except mood disorders ($\kappa = .60$). Partners' psychological outcomes were assessed using the Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996), the State-Trait Anxiety Inventory (STAI) Trait subscale (Spielberger, 1983), and the State-Trait Anger Expression Inventory (STAXI) State, Trait, and Anger Expression subscales (Spielberger, 1988). With the exception of the State and Anger Expression scales of the STAXI at the final assessment point ($\alpha s = .63$ and $.60$, respectively), internal consistency was acceptable for the remaining measures across all assessment points ($\alpha s = .71$ – $.98$). The psychometric properties of all measures in the current study have been well established (e.g., Beck et al., 1996; Spielberger, 1983, 1988).

Data Analysis

Analyses for Hypothesis 1 were conducted in accordance with intention-to-treat principles using all available data at each assessment point for the full sample ($N = 40$) and were repeated using data from the completer-only subsample ($n = 31$). Completer status was based on a dyad's completion of their respective condition (i.e., completion of the 15 sessions of CBCT for PTSD in the treatment-immediately condition and completion of the 4- and 12-week assessments for both members of the couple in the waitlist condition). To determine whether partners in the CBCT for PTSD condition had significantly greater improvements on measures of psychological functioning compared with partners in the waitlist condition, multilevel models were estimated for each outcome (BDI-II, STAI Trait, and STAXI State, Trait, and Anger Expression) with condition, time, and the condition by time interaction included as predictors in the model; random intercepts and slopes were estimated for each participant. Site effects were included as a fixed effect in the original models, but because site was not a significant predictor, it was not retained in the final models.

Between-group effect sizes (Hedges' *g*) were calculated by subtracting the least-squares mean from the 12-week assessment in the waitlist group from the least-squares mean at posttreatment in the CBCT for PTSD group, dividing by the associated pooled standard deviation, and adjusting for small sample size. Paired-samples *t* tests were also utilized to test whether partners in the CBCT for PTSD condition maintained improvements from posttreatment to 3-month follow-up on each measure.

Secondary analyses focused on the effects of receiving CBCT for PTSD, regardless of whether CBCT for PTSD was received immediately or following a 12-week waiting period. To this end, pretreatment scores were defined as the baseline assessment for the CBCT for PTSD condition and the 12-week assessment for the waitlist condition, and posttreatment scores were defined as the assessment that took place immediately following each condition's completion of treatment. Data from couples who completed all 15 sessions of treatment (*n* = 27) were included.

To examine whether partners presenting as distressed evidenced clinically significant and reliable improvements in their psychological functioning, change was examined on an individual basis for each outcome within a subgroup of partners

who met criteria for distress on each measure at pretreatment. For the BDI-II, distress was defined as having a pretreatment score at or above 14, indicative of mild depression (Beck et al., 1996). Consistent with recommendations by the author of the STAI and STAXI, we used the 75th percentile score in a normative sample that best approximated the sample in the current study as the clinical cut point for these measures, STAI Trait = 42 (Spielberger, 1983); STAXI State (male = 11, female = 14), Trait (male = 21, female = 22; Spielberger, 1988). Normative scores for females that best approximated the current sample on the STAXI Anger Expression subscale are not reported in the reference sample (Spielberger, 1988). Thus, the male 75th percentile score was used as a clinical cut point for females, Anger Expression (male = 24, female = 24; Spielberger 1988). Using these cut points, the number and percentage of partners who began above the cut point at pretreatment and fell below the cut point at posttreatment for each measure were calculated (i.e., how many partners changed from distressed to nondistressed following treatment). Reliable change among distressed partners was also evaluated using previously established reliable change criteria, BDI-II = 5, STAI Trait = 6, STAXI State (male = 13, female = 15), Trait (male = 8, female = 7), Anger

Table 1
Partners' Outcomes as a Function of Condition and Time Point

Outcome measure	Pretreatment/baseline				Midtreatment/4-week waitlist				Posttreatment/12-week waitlist				<i>g</i> *
	CBCT		WL		CBCT		WL		CBCT		WL		
	<i>n</i> = 20		<i>n</i> = 20		Intent-to-treat sample				<i>n</i> = 20		<i>n</i> = 20		
	LSM	SE	LSM	SE	LSM	SE	LSM	SE	LSM	SE	LSM	SE	
BDI-II	11.00	1.76	8.16	1.75	10.25	1.59	7.66	1.55	9.49	1.94	7.15	1.78	-0.27
STAI Trait	39.10	2.31	37.84	2.25	38.43	2.26	36.97	2.18	37.77	2.57	36.09	2.41	-0.15
STAXI													
State	10.54	0.82	12.38	0.80	10.91	0.63	12.01	0.60	11.29	0.93	11.64	0.82	0.09
Trait	17.24	1.09	17.05	1.06	16.95	1.04	16.79	1.00	16.66	1.14	16.53	1.07	-0.03
Anger Expression	21.76	1.78	23.85	1.73	21.27	1.72	24.39	1.66	20.79	1.87	24.94	1.76	0.49
					Completer sample								
	<i>n</i> = 14		<i>n</i> = 17		<i>n</i> = 14		<i>n</i> = 17		<i>n</i> = 14		<i>n</i> = 17		
	LSM	SE	LSM	SE	LSM	SE	LSM	SE	LSM	SE	LSM	SE	
BDI-II	9.65	1.99	9.23	1.81	9.21	1.75	8.55	1.58	8.78	2.03	7.87	1.81	-0.11
STAI Trait	37.98	2.65	39.57	2.40	37.82	2.55	38.92	2.31	37.67	2.82	38.27	2.54	0.06
STAXI													
State	10.15	0.88	12.73	0.80	10.27	0.66	12.25	0.59	10.39	0.90	11.78	0.80	0.33
Trait	17.30	1.03	16.61	0.94	16.77	0.95	16.43	0.86	16.25	1.04	16.25	0.94	0.00
Anger Expression	20.93	1.98	23.99	1.80	20.36	1.92	24.61	1.74	19.78	2.07	25.22	1.87	0.67

Note. Positive effect sizes represent improvements in the expected direction. Effect sizes were calculated using Hedges' *g* with bias correction (*g**). Least square means (LSM) and standard errors were calculated from multilevel models using time, treatment condition (CBCT vs. WL) and their interaction as predictors of each outcome above. CBCT = Cognitive-Behavioral Conjoint Therapy for Posttraumatic Stress Disorder; WL = Waitlist; BDI-II = Beck Depression Inventory-II; STAI = State-Trait Anxiety Inventory; STAXI = State-Trait Anger Expression Inventory.

Table 2
Partners' Outcomes in the Combined Sample

Outcome measure	Pretreatment <i>n</i> = 27		Posttreatment <i>n</i> = 26		Above clinical cut point at pretreatment <i>n</i> = 27		Above clinical cut point at pretreatment but below at posttreatment		Reliable change among distressed partners	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
BDI-II	8.63	7.10	6.09	6.01	7	25.9	4	57.1	4	57.1
STAI Trait	37.78	9.09	36.73	7.75	7	25.9	2	28.6	2	28.6
STAXI										
State	10.78	1.55	10.38	0.70	6	22.2	2	33.3	0	0
Trait	16.26	3.27	15.88	3.40	2	7.4	2	100	0	0
Anger Expression	23.07	8.44	21.04	7.02	12	44.4	6	50.0	1	8.3

Note. Numbers and percentages for those below the cut point at posttreatment and reliable change columns are based on partners who were above clinical cut points at pretreatment assessment. BDI-II = Beck Depression Inventory-II; STAI = State-Trait Anxiety Inventory; STAXI = State-Trait Anger Expression Inventory.

Expression (male = 13, female = 11; Monson et al., 2011, 2004).

Results

There were no significant condition by time interactions for any of the partner outcome measures for the intention-to-treat or completer samples. These were the values for intention-to-treat: BDI-II ($B = -0.25$, $SE = 1.27$), STAI Trait ($B = 0.21$, $SE = 1.24$), STAXI State ($B = 0.75$, $SE = 0.82$), STAXI Trait ($B = -0.03$, $SE = 0.55$), STAXI Anger Expression ($B = -1.03$, $SE = 0.82$). These were the values for completers: BDI-II ($B = 0.24$, $SE = 1.32$), STAI Trait ($B = 0.49$, $SE = 1.31$), STAXI State ($B = 0.59$, $SE = 0.80$), STAXI Trait ($B = -0.35$, $SE = 0.55$), STAXI Anger Expression ($B = -1.19$, $SE = 0.88$); all $ps \geq .185$ (see Table 1). Complete results of the multilevel model analyses are not presented here, but can be obtained from the first author. Paired-samples t tests revealed that partners in the CBCT for PTSD condition did not change on any measures from posttreatment to 3-month follow-up, BDI-II: $t(11) = -0.94$, $p = .368$; STAI Trait: $t(11) = 0.44$, $p = .669$; STAXI State: $t(11) = -0.84$, $p = .418$; STAXI Trait: $t(11) = -0.13$, $p = .898$; STAXI Anger Expression: $t(11) = -0.68$, $p = .510$.

Table 2 contains pre- and posttreatment means and standard deviations from the combined sample of all partners who completed the 15-session CBCT for PTSD treatment. Individual change analyses in a subgroup of distressed partners, also presented in Table 2, revealed that between 28.6% and 100% of partners who were above the cut point for distress for each measure at pretreatment fell below the cut point for distress at posttreatment. In addition, up to 57.1% of partners in the distressed range at pretreatment evidenced reliable change on measures of depression, anxiety, or anger expression. Furthermore, none of the partners who began treatment in the distressed range experienced reliable worsening on any outcome measure.

Discussion

The current study examined intimate partners' outcomes from a randomized controlled trial of CBCT for PTSD. Although there were no differences in outcomes between the CBCT for PTSD and waitlist conditions in intention-to-treat or completer analyses, individual-level change analyses revealed that partners of individuals with PTSD who are in the clinical range for individual mental health symptom severity can benefit from completing a conjoint therapy aimed at decreasing PTSD symptoms and enhancing relationship functioning. It is also important to note that none of the partners who began treatment above the clinically distressed cut points on the outcome measures evidenced symptom worsening.

The current study has important implications for the understanding of partners' psychological functioning and the treatment of couples in which one partner is suffering from PTSD. Specifically, the nonsignificant findings between the CBCT for PTSD and waitlist conditions suggest that, when considering the groups as a whole, receiving CBCT for PTSD poses low risk of clinical worsening among partners. Moreover, the individual-level analyses are consistent with this notion and indicate that some partners with clinically significant distress may actually experience clinically significant and reliable improvements in their psychological functioning.

When developing and initially testing treatments, it is imperative that the safety (i.e., possibility of symptom worsening) of the treatments be established. Though the efficacy of CBCT for PTSD has been established among individuals with PTSD (Monson et al., 2011, Monson, Fredman et al., 2012, Monson et al., 2004), our findings speak to one aspect of safety and potential benefits of utilizing this treatment with respect to partners' mental health. Moreover, research has shown that clinicians often underutilize trauma-focused treatments for PTSD, citing the concern that these treatments will be too difficult for patients to tolerate or that they may exacerbate symptoms

(Becker, Zayfert, & Anderson, 2004; Rosen et al., 2004). We hope that our findings assist in disabusing clinicians of these beliefs by demonstrating that trauma-focused treatments are not only efficacious and safe to use in individual contexts, but that presently there appears to be no risk to partners of individuals with PTSD if a trauma-focused conjoint therapy is utilized. In addition, there may be potential benefits to patients with PTSD by including intimate partners in treatment. These include the potential for improvements in family and intimate relationship functioning, patients' response to treatment, and reductions in patient drop out, all of which have been noted as limitations to existing treatments for PTSD (e.g., Bradley, Greene, Russ, Dutra, & Westen, 2005; Monson, Macdonald et al., 2012; Tarrier, Sommerfield, & Pilgrim, 1999).

The current study is the first of which we are aware to test the effects of CBCT for PTSD on partners' symptom outcomes using a controlled trial methodology. Given the inconsistent findings with respect to partners' psychological functioning following CBCT for PTSD within this and other studies (Monson et al., 2011, 2004), additional sessions may serve to further improve partners' psychological functioning. Specifically, given that treatment is designed to improve PTSD symptoms and enhance relationship functioning, additional time may be needed to fully and consistently produce improvements in partners' psychological functioning. In this vein, a variable duration approach to treatment may be beneficial in which treatment is only terminated when the patient, the partner, and the couple reach specific benchmarks with respect to PTSD symptomatology, psychological functioning, and satisfaction, respectively. It is important to consider, however, the low levels of distress in the current sample, which suggests that there was a floor-effect preventing further improvement in partners' psychological functioning when examined at the group level.

A possible methodological reason for the lack of between-group findings of this and prior studies is the nature of the samples employed in the studies. Partners involved in the current study and prior treatment studies have not generally been in clinically distressed ranges on the outcome measures of interest (e.g., Deville, 2002; Monson et al., 2011; Sweany, 1987). Although clinical levels of psychological symptoms have consistently been found among partners of individuals with PTSD in observational studies (e.g., Beckham et al., 1996; Manguno-Mire et al., 2007), the distress reported by partners in treatment trials does not appear to be as severe. Partners in the current study reported symptoms that tended to be lower than that reported by normative samples or, in a few cases, slightly above the mean of normative samples (Beck et al., 1996; Spielberger, 1983, 1988). This indicates that the current sample did not appear to have elevated levels of distress relative to a normative population. As a result, it is more difficult to change levels of distress when there are minimal/normal levels of existing distress. A possible explanation for the low levels of distress in the current sample may be associated with the types of traumas from which individuals developed PTSD (i.e., different types of traumas may have specific effects on partners' psychologi-

cal functioning). Furthermore, almost all the literature informing our understanding of partners' psychological functioning among partners of individuals with PTSD has resulted from research on military/veteran samples. The current study included a more varied sample with respect to index traumas. Meta-analytic findings have suggested that the association between PTSD and partners' psychological distress may be stronger among military than civilian samples (Lambert et al., 2012). Thus, it is possible that external variables not present in the current sample, such as the stress of deployment, may be more influential in the development of psychological distress among partners. Accordingly, future research should consider the effects of PTSD on partners' psychological functioning among civilian samples with more varied trauma types (e.g., childhood physical or sexual abuse, adult sexual trauma, motor vehicle accidents). Additionally, couples in previous studies establishing the association between PTSD and partners' distress have traditionally been comprised of male individuals with PTSD and female partners. The current study had a predominantly male partner sample. Thus, it is possible that sex may moderate the effects of PTSD on partners' psychological functioning (Monson, Fredman et al., 2012).

There are a number of limitations of the current study that may be addressed in future research. First, the current study had a small sample size; it is important to replicate the current work in a larger sample to establish the consistency of the findings. It should also be noted that the reliable and clinically significant change detected in the subgroup analyses of distressed partners could have been due to the passage of time. This study is also limited by the measures used to assess partners' psychological functioning. Previous research in the field has used the term "general psychological distress" to connote elevations in partners' symptomatology in various domains (e.g., anxiety, depression, sleep problems). In the current study, efforts were made to use the term "psychological functioning" to convey that, for many of the partners in the current sample, these symptoms were not in a clinical range. The term "psychological distress" was reserved for the discussion of findings relevant to partners with symptoms in the clinical range and when discussing previous research in which this term has been used. It is suggested that future work in this line of research include a focus on being more exhaustive in its evaluation of partners' psychological functioning. Finally, given that partners' psychological functioning has been shown to be associated with patients' PTSD symptomatology, future research should consider examining how patient characteristics (e.g., patients' PTSD and comorbid symptom severity, index trauma type) may affect partners' treatment outcomes.

The results of the current study suggest that partners of individuals with PTSD have the potential to benefit from dyadic treatments for PTSD and relationship enhancement if they complete treatment. Moreover, the likelihood of worsening by participating in this treatment is low. Although CBCT for PTSD does not have, as one of its specific aims, the goal of improving partners' psychological functioning, results of the current study

provide evidence that the benefits of conjoint interventions for PTSD may extend to partners. Given the systemic nature of and interpersonal factors associated with PTSD, results of the current study, coupled with those from previous uncontrolled trials (Monson et al., 2011, 2004), suggest that CBCT for PTSD may provide an alternative to individual treatments for PTSD with the potential benefit of improving partners' psychological functioning.

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