Cognitive-Behavioral Conjoint Therapy for PTSD: Initial Findings for Operations Enduring and Iraqi Freedom Male Combat Veterans and Their Partners

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Posttraumatic stress disorder (PTSD) and partner relationship difficulties commonly co-occur among Veterans of Operations Enduring Freedom and Iraqi Freedom (OEF-OIF). This study reports upon results for six male OEF-OIF Veterans with PTSD and their female relationship partners who completed cognitive-behavioral conjoint therapy for PTSD (CBCT for PTSD), which is a treatment that targets reductions in PTSD and couple distress. Case- and group-level data supported reductions in Veterans’ PTSD symptoms and female partners’ relationship distress. These findings suggest that CBCT for PTSD may be a promising intervention for OEF-OIF Veterans’ PTSD and their partners.

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There is a plethora of evidence that posttraumatic stress disorder (PTSD) symptoms are associated with a variety of relationship problems between Veterans and their romantic partners (see Monson, Taft, & Fredman, 2009 for review). Emerging research on Operation Enduring Freedom-Operation Iraqi Freedom (OEF-OIF) Veterans indicates that family readjustment problems are common, particularly in the context of PTSD (Sayers et al., 2009). These findings suggest that treatment that provides psychoeducation about the disorder and addresses PTSD within the context of couples’ relationships by improving communication, decreasing avoidance behaviors, and addressing both partners’ maladaptive cognitions may be helpful for this cohort of Veterans and their partners. Indeed, several groups of authors have called for the inclusion of significant others in treatment to potentiate Veterans’ engagement and retention in PTSD treatment, improve relationship functioning, and enhance significant others’ well-being (e.g., Batten et al., 2009; Meis et al., 2010; Milliken, Auchterlonie, & Hoge, 2007). These recommendations to include significant others into PTSD treatment are timely in light of the recent initiative by the Department of Veterans Affairs (VA) to add marriage and family therapists as staff in VA treatment facilities (Department of Veterans Affairs, 2010).

Recent articles have described the theoretical application of couple-based treatment for PTSD among OEF-OIF Veterans (Fredman, Monson, & Adair, 2011; Monson, Fredman, & Adair, 2008; Sautter, Armalie, Glynn, & Wielt, 2011). In addition, a descriptive case study of an OIF Veteran and his wife demonstrated improvements in both the Veteran’s PTSD symptoms and the couple’s relationship functioning over the course of PTSD-focused couple therapy (Fredman et al., 2011). Other than this case study report, there are no published empirical studies that specifically examine whether PTSD-focused couple therapy is efficacious for OEF-OIF Veterans and their partners.

Cognitive-behavioral conjoint therapy for PTSD (CBCT for PTSD; Monson & Fredman, 2012) is a disorder-specific couple therapy that simultaneously aims to reduce PTSD symptoms and enhance intimate relationship functioning. This protocol involves 15 sessions, which are attended by the person with PTSD and a significant other. CBCT for PTSD was developed to be a front-line treatment for PTSD, while concurrently helping couples to improve their relationship. Hence, it can be delivered as a stand-alone treatment for treating PTSD. Results from an uncontrolled trial of CBCT for PTSD among male Vietnam Veterans and their partners revealed significant pre-to post-treatment improvements in Veterans’ PTSD symptoms and comorbid conditions, both partners’ social adjustment, and partners’ relationship satisfaction (Monson et al., 2004; Monson, Stevens, & Schnurr, 2005). In addition, a recently published open trial by Monson et al. (2011) tested CBCT for PTSD using a community sample that included both civilians with PTSD and OIF Veterans with combat-related PTSD and their partners. Similar to the earlier...
Conjoint PTSD Treatment for Veterans

In a study of Vietnam veterans, the authors observed large and significant pre- to post-treatment effect size improvements in PTSD symptoms and relationship adjustment.

A primary goal of the current study is to expand the case study results of Fredman et al. (2011) with a series of OEF-OIF Veterans treated in a Department of Veterans Affairs setting that is outside of the developers’ clinics. A secondary goal is to evaluate pre- to post-treatment group-based effect sizes. Following previous research on CBCT for PTSD, we hypothesized that OEF-OIF Veterans who received CBCT for PTSD with their intimate partners would exhibit improvements from pre- to post-treatment in their PTSD and depressive symptoms. We also hypothesized that these couples would report pre- to post-treatment improvements in their relationship adjustment.

METHOD

Approval was obtained from the University of Cincinnati Institutional Review Board to review charts for the purposes of archival data use.

Participants

Participants were six OEF-OIF male Veterans with combat-related PTSD and their cohabitating female partners, who were consecutively referred for CBCT for PTSD (Monson & Fredman, 2012) at a VA PTSD treatment program. Veterans’ mean age was 37.2 (SD = 7.2) years, and the mean age of their partners was 35.5 (SD = 6.0) years. Both partners were Caucasian in five of the couples, and both partners were Latino in one couple. Couples were married/cohabitating an average of 10.3 years (SD = 7.2), and 5 of the 6 couples had children. Couples received no other psychotherapy during the course of CBCT for PTSD.

Measures

PTSD diagnosis and clinician-rated symptom severity were assessed by the Clinician-Administered PTSD Scale (CAPS; Blake et al., 1995), a semi-structured interview that assesses PTSD diagnostic status and symptom severity in a manner consistent with the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR; American Psychiatric Association, 2000) and is considered a gold-standard instrument for PTSD assessment. A diagnosis of PTSD was based on meeting the DSM-IV-TR criteria and having a minimum symptom severity of 45. PTSD symptom criteria were scored on frequency and intensity and a symptom was counted...
toward meeting DSM-IV-TR diagnostic criteria if the frequency was rated at least 1 (symptoms occur at least monthly) and intensity was rated at least a 2 (moderate distress). In addition, Veterans and their partners completed ratings of the Veterans’ PTSD symptom severity using patient and partner versions of the PTSD Checklist (PCL; Weathers et al., 1993). The PCL is well-validated among military and Veteran samples (Forbes, Creamer, & Biddle, 2001; Monson et al., 2008). Veterans’ co-occurring DSM-IV-TR Axis I diagnoses were assessed via the Structured Clinical Interview for the DSM-IV-Patient Version (SCID; First et al., 1995). Veterans’ depression severity levels were assessed via the 21-item Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996), a well-validated measure of depression severity (Beck, Steer, & Garbin, 1988). Finally, both partners completed the 32-item Dyadic Adjustment Scale (DAS; Spanier, 1976) to assess overall relationship adjustment. Consistent with recommendations, a DAS score of <97 was used to classify respondents as being relationally distressed.

Procedure

Prior to engaging in CBCT for PTSD, Veterans were assessed by a clinician other than the treating couple therapist with the CAPS. After referral for CBCT for PTSD, the treating therapist met with the couple for a two-to-three session intake to assess their relationship functioning and each partner’s mental health history prior to starting the protocol. The therapists individually interviewed partners about their trauma histories and PTSD symptoms. Two of the female partners were childhood abuse survivors, and the other three denied trauma histories. Neither female partner who were childhood abuse survivors met diagnosis for PTSD. Couples subsequently completed the CBCT for PTSD protocol.

CBCT for PTSD consists of 15 sessions arranged sequentially in three phases. The first phase (sessions 1 and 2) is designed to provide psychoeducation about the bi-directional association between PTSD and relationship difficulties, exercises to increase positive behaviors between the partners, and skills to facilitate conflict management. The second phase (sessions 3–7) emphasizes improved communication skills and decreased couple-level avoidance (e.g., avoidance of crowded venues such as malls, movie theaters, restaurants). In addition, during this stage, the couple is introduced to a dyadic technique aimed at increasing cognitive flexibility by considering alternatives to each partner’s observed thoughts. With a foundation of increased positive behaviors, improved communication, and decreased avoidance, phase 3 (sessions 8–15) focuses on couple-level cognitive change using the above-mentioned dyadic intervention. During this stage, misappraisals of the traumatic event (e.g., “I should have somehow anticipated that there would be an IED on that road”) and cognitions that maintain both PTSD
and relationship difficulties (e.g., “I can’t trust anyone”) are identified, and couples are encouraged to consider more balanced alternatives (“I can’t trust all people, but I can trust my partner in most instances”). The treatment ends with a discussion about maintaining both individual and couple-level gains that they have made during therapy, as well as plans for lapse prevention.

Both therapists attended a one-day training on CBCT for PTSD and participated in weekly consultation with a trained CBCT for PTSD consultant during the duration of treatment. Following the completion of treatment, Veterans were asked to complete a post-treatment diagnostic assessment with a clinician other than the treating CBCT for PTSD therapist, and five of the six Veterans participated in the post-treatment diagnostic assessment. The Veteran who did not participate in the post-treatment diagnostic assessment did provide post-treatment self-reported PTSD symptom and relationship adjustment data at the final session.

RESULTS

We examined individual-level change using the reliable change index (Jacobson & Truax, 1991) as well as pre- and post-treatment PTSD diagnostic status, major depressive disorder diagnostic status, and relationship distress status for each couple. Effect sizes were also calculated to assess the magnitude of pre- to post-treatment changes ($d = t/\sqrt{df}$) for the overall sample. Along with this, paired sample $t$ tests were used to explore whether pre- to post-treatment changes in outcomes achieved statistical significance for the overall sample.

Individual-Level Results

The individual-level couple data mostly supported our hypotheses. As noted above, CAPS and BDI-II data were not available for couple 5 because the Veteran declined to attend a formal post-treatment evaluation due to work-related schedule constraints, though they did provide PCL and DAS data at the final CBCT for PTSD session. Data were otherwise available on all measures for the remainder of the couples.

All of the Veterans met PTSD diagnostic criteria at pre-treatment, but none of the five Veterans with available post-treatment CAPS data met diagnostic criteria for PTSD following treatment. There were reliable reductions in clinician-rated or self-rated PTSD symptom severity for all Veterans (see Table 1). Reliable reductions in clinician-rated PTSD severity were observed for 4 of the 5 Veterans who completed the post-treatment CAPS. Regarding self- and partner-reported PTSD symptoms, reliable reductions were found for Veteran and female partner ratings of PTSD severity in 5 of the 6 cases.
### TABLE 1
Individual-Level Pre- and Post-Treatment Comparisons for Couples Completing Cognitive-Behavioral Conjoint Therapy for Posttraumatic Stress Disorder (PTSD)

<table>
<thead>
<tr>
<th></th>
<th>CAPS Total</th>
<th>PCL Total</th>
<th>DAS Total</th>
<th>BDI-II Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre</td>
<td>Post</td>
<td>Pre</td>
<td>Post</td>
</tr>
<tr>
<td>Couple 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Veteran</td>
<td>55</td>
<td>18*</td>
<td>39</td>
<td>33</td>
</tr>
<tr>
<td>Partner</td>
<td>—</td>
<td>—</td>
<td>24</td>
<td>21</td>
</tr>
<tr>
<td>Couple 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Veteran</td>
<td>68</td>
<td>29*</td>
<td>47</td>
<td>39*</td>
</tr>
<tr>
<td>Partner</td>
<td>—</td>
<td>—</td>
<td>41</td>
<td>26*</td>
</tr>
<tr>
<td>Couple 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Veteran</td>
<td>47</td>
<td>52</td>
<td>62</td>
<td>42*</td>
</tr>
<tr>
<td>Partner</td>
<td>—</td>
<td>—</td>
<td>37</td>
<td>26*</td>
</tr>
<tr>
<td>Couple 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Veteran</td>
<td>95</td>
<td>18*</td>
<td>61</td>
<td>42*</td>
</tr>
<tr>
<td>Partner</td>
<td>—</td>
<td>—</td>
<td>62</td>
<td>41*</td>
</tr>
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<td>Couple 5</td>
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<td></td>
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<tr>
<td>Veteran</td>
<td>91</td>
<td>—</td>
<td>68</td>
<td>28*</td>
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<tr>
<td>Partner</td>
<td>—</td>
<td>—</td>
<td>61</td>
<td>43*</td>
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<tr>
<td>Couple 6</td>
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<td></td>
</tr>
<tr>
<td>Veteran</td>
<td>80</td>
<td>13*</td>
<td>74</td>
<td>20*</td>
</tr>
<tr>
<td>Partner</td>
<td>—</td>
<td>—</td>
<td>52</td>
<td>27*</td>
</tr>
</tbody>
</table>

Note. CAPS = Clinician-Administered PTSD Scale; PCL = PTSD Checklist; DAS = Dyadic Adjustment Scale; BDI-II = Beck Depression Inventory-II. Partner PCL scores reflect partner’s ratings of the Veteran’s PTSD symptoms. The Veteran from couple 5 did not participate in the post-treatment evaluation resulting in missing data on the CAPS and BDI-II. However, data were available for all 5 couples on the post-treatment PTSD checklist and Dyadic Adjustment Scale.

*Reliable change > 1.96 on Jacobson and Truax (1991) reliable change index (pre-treatment score—post-treatment score)/(√(2(SE)^2).

At pre-treatment, 4 of the 6 Veterans rated their relationship as being in the non-distressed range. At post-treatment, 5 of the 6 Veterans rated their relationship as being in the non-distressed range, and 1 Veteran rated his relationship adjustment as being just below the cut-off for distinguishing distressed from non-distressed couples (see Table 1). The Veteran who was most clearly in the relationally distressed range and who exhibited the lowest relationship adjustment rating at pre-treatment showed a reliable improvement from pre- to post-treatment and was no longer in the relationally-distressed range at post-treatment. One Veteran exhibited a reliable decline in relationship adjustment. In this case, the Veteran rated his pre-treatment relationship adjustment as being over 1 SD above the mean for married couples from the community (Spanier, 1976). Despite the reliable decline, this Veteran rated his relationship adjustment at post-treatment as being in the non-distressed range. Overall, four of the six Veterans did not exhibit a reliable change in relationship adjustment from pre- to post-treatment.

All three of the female partners who were relationally distressed at pre-treatment were in the non-distressed range at post-treatment. As expected, none of the three female partners whose ratings were in the
non-distressed range at pre-treatment exhibited a reliable change from pre-to post-treatment. Regarding the female partners’ relationship adjustment overall, three of the six showed a reliable improvement from pre- to post-treatment in their relationship adjustment (see Table 1).

Improvements in depressive symptom severity were found for three of the five cases with available pre- and post-treatment depression severity ratings (see Table 1). Each of the three Veterans who exhibited reliable improvements in depression severity ratings exhibited a clinical diagnosis of major depressive disorder at pre-treatment but showed diagnostic remission at post-treatment. One of the Veterans was unchanged, and one exhibited a reliable increase in self-rated depression severity. The Veteran who exhibited a reliable increase in self-rated depression symptoms exhibited a current major depressive disorder diagnosis at both pre- and post-treatment.

Group-Level Results

Findings for the overall sample showed large and statistically significant effect size reductions in clinician, Veteran, and female partner ratings of Veterans’ PTSD symptom severity. A large effect size pre- to post-treatment improvement was found for partner-rated relationship adjustment. The paired t-test for partner-rated DAS had an associated \( p = .07 \) and, therefore, did not reach the conventional criterion for statistical significance (\( p < .05 \)). Veterans showed a small, non-significant effect size improvement in pre- to post-treatment relationship adjustment. Finally, a non-significant, medium-to-large effect size reduction in Veteran-rated depression symptom severity was found (see Table 2).

<table>
<thead>
<tr>
<th>TABLE 2</th>
<th>Group-Level Pre- and Post-Treatment Comparisons for Couples Completing Cognitive-Behavioral Conjoint Therapy for Posttraumatic Stress Disorder (PTSD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome</td>
<td>Pre-treatment</td>
</tr>
<tr>
<td></td>
<td>( M )</td>
</tr>
<tr>
<td>Clinician-Administered PTSD Scale Total</td>
<td>69.00</td>
</tr>
<tr>
<td>PTSD Checklist Total</td>
<td>58.50</td>
</tr>
<tr>
<td>Patient self-report</td>
<td>46.17</td>
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<tr>
<td>Partner report on patient</td>
<td></td>
</tr>
<tr>
<td>Dyadic Adjustment Scale</td>
<td></td>
</tr>
<tr>
<td>Patient total score total</td>
<td>105.16</td>
</tr>
<tr>
<td>Partner total score total</td>
<td>90.67</td>
</tr>
<tr>
<td>Beck Depression Inventory-II for patient</td>
<td>34.40</td>
</tr>
</tbody>
</table>

*Note. \( N = 6 \) couples. The Veteran from couple 5 did not participate in the post-treatment diagnostic evaluation resulting in missing data on the Clinician-Administered PTSD Scale and Beck Depression Inventory-II. However, data were available for all 6 couples on the post-treatment PTSD checklist and Dyadic Adjustment Scale.

*\( p < .05 \) for two-tailed test. +\( p = .07 \).
DISCUSSION

Results from this study expand upon Fredman, Monson, and Adair’s (2011) single case study and Monson et al.’s (2011) community trial by showing that CBCT for PTSD may be a promising treatment for OEF-OIF Veterans with combat-related PTSD and their partners. All six of the Veterans in the current study showed reliable pre- to post-treatment reductions in either clinician- or self-rated PTSD symptoms. Four of the five Veterans who participated in the post-treatment diagnostic assessment of their PTSD symptoms showed reliable reductions in clinician-rated symptom severity, and none of the five continued to meet diagnostic criteria for PTSD at post-treatment, as determined by an independent clinical assessor. In addition, statistically significant, large group-based effect-size improvements were observed across Veteran-, female partner-, and clinician-rated PTSD severity measures. These results showing significant and large effect size reductions in PTSD severity are consistent with those found in an uncontrolled trial of CBCT for PTSD among male Vietnam Veterans and their female partners (Monson et al., 2004; Monson, Stevens, & Schnurr, 2005) and an uncontrolled trial of CBCT for PTSD among community couples and their partners (Monson et al., 2011).

The current study’s results are also consistent with prior studies of CBCT for PTSD in demonstrating reductions in depressive symptom severity among patients with PTSD. Three of the five patients with available post-treatment self-report data for depression showed reliable reductions. Clinical diagnostic outcomes revealed that three of the four Veterans who met criteria for a current major depressive episode at pre-treatment did not meet criteria for a current major depressive episode at post-treatment. One Veteran showed a reliable increase on self-reported depression severity, and he continued to exhibit a major depression diagnosis at post-treatment. Group-level analysis in the current study revealed medium-to-large effect size declines in depression over the course of treatment and is consistent with the range of effect sizes found in prior research on CBCT for PTSD (Monson et al., 2004; Monson, Stevens, & Schnurr, 2005; Monson et al., 2011).

Results from this study were consistent with prior research showing improvements in partners’ ratings of relationship adjustment. In this study, 3 of 6 female partners showed a reliable improvement in their relationship adjustment ratings from pre- to post-treatment, and all six partners rated their relationships as non-distressed at post-treatment. In addition, a large and marginally significant group-based effect size improvement was found for partner-rated relationship adjustment. It is noteworthy that reliable improvements were found for each of the 3 female partners who rated their relationships as being in the distressed range at pre-treatment and that none of the female partners rated their relationships as being in the distressed range at post-treatment. This finding suggests that CBCT for PTSD may be
especially helpful for improving satisfaction among Veterans’ partners who are distressed about their relationship prior to treatment.

In contrast to the findings for Veterans’ partners, the majority of Veterans did not show reliable changes in their relationship satisfaction ratings. This may be partially accounted for by the fact that 4 of the 6 Veterans were in the non-distressed range prior to treatment and, therefore, there may have been less room to show substantial improvements in this domain. Consistent with the noted improvement for relationally distressed female partners, the Veteran who had the lowest relationship adjustment score prior to treatment showed reliable improvement and was in the non-distressed at the end of treatment.

One Veteran exhibited reliable deterioration in his relationship adjustment ratings, with his pre-treatment ratings well above the average level at pre-treatment and in the non-distressed, average range at post-treatment. This Veteran reported to his therapist during the pre-treatment evaluation sessions that he viewed his relationship as “virtually flawless.” His decreased score seemed to reflect his becoming more realistic and balanced in his relationship adjustment appraisals. Supporting this interpretation, the Veteran’s relationship adjustment rating was much higher than his partners at pre-treatment but was similar to his partner’s rating at post-treatment, with both being in the non-distressed range.

Findings from the present study are congruent with the uncontrolled clinical trial of CBCT for PTSD among Vietnam Veterans with PTSD, which found that, on average, Veterans did not exhibit meaningful changes in their relationship adjustment ratings (Monson, Schnurr, Stevens, & Guthrie, 2004; Monson, Stevens, & Schnurr, 2005). This suggests that CBCT for PTSD may not necessarily enhance or hurt relationship adjustment from the perspective of Veterans who perceive their relationship as being generally non-distressed at the outset, but may improve relationship adjustment for partners who are distressed about the relationship.

Despite the promising nature of these findings, caution must be taken in interpreting these results. First, the primary purpose of the present study was to examine case-level outcomes in an attempt to replicate and expand upon a prior published case study of CBCT for PTSD in an OIF Veteran and his wife, with a secondary aim of examining group-level changes across couples. The small sample size (N = 6) does limit the study’s statistical power and may lead to unstable parameter estimates. Nonetheless, we did observe several significant findings and large effects across several measures. Second, couples in this study received CBCT for PTSD in a “real world” VA clinical setting that did not involve randomization to treatment condition. Not randomizing Veterans to treatment condition helps to increase the generalizability of the results to Veterans who are being seen in routine clinical care through the VA but does preclude the ability to make a causal determination.
about whether changes during treatment were due to CBCT for PTSD or other factors.

In summary, findings from this study build upon growing evidence that CBCT for PTSD may be an efficacious intervention for helping to reduce PTSD symptom severity among a variety of populations, including the newest generation of returning Veterans. These results are timely in light of evidence showing that Veterans overwhelmingly prefer to have family members involved in their PTSD treatment (Batten et al., 2009) and that this generation of combat Veterans have reported both increasing rates of interpersonal problems and PTSD following deployment (Milliken, Auchterlonie, & Hoge, 2007). Finally, approaches such as CBCT for PTSD that incorporate Veterans partners directly into treatment may be one way to help to overcome the stigma of these Veterans seeking mental health services (Milliken et al., 2007) and improve outcomes for both Veterans and their loved ones.

REFERENCES


