AMERICAN PSYCHOLOGICAL ASSOCIATION
DIV. 43 SOCIETY FOR COUPLE & FAMILY PSYCHOLOGY
Couple and Family Psychology: Research and Practice

In the public domain
ISSN: 2160-4096

2022, Vol. 11, No. 1, 15–32
https://doi.org/10.1037/cfp0000210

# Emotionally Focused Couple Therapy Within VA Healthcare: Reductions in Relationship Distress, PTSD, and Depressive Symptoms as a Function of Attachment-Based Couple Treatment

Michael B. Ganz[1], Hannah F. Rasmussen[2], Tatiana V. McDougall[1], Geoffrey W. Corner[2, 3], Tabitha T. Black[4], and Hector F. De Los Santos[1]

[1] Psychology Service, VA Long Beach Health Care System, Long Beach, California, United States
[2] Department of Psychology, University of Southern California
[3] Psychology Service, VA Puget Sound Health Care System, Seattle, Washington, United States
[4] Department of Psychology, Alliant International University

Emotionally Focused Couple Therapy (EFT) is a well-established, attachment-based treatment for relationship distress. This study seeks to further previous research by examining the impact of EFT on veterans' and their partners' symptoms of posttraumatic stress disorder (PTSD), depression, and relationship distress, in a real-life clinical setting. The present study uses dyadic data analyses to test three hypotheses: from pre to posttherapy veterans and their partners would report (a) increases in relationship satisfaction and decreases in (b) PTSD and (c) depression symptoms. In addition, we tested whether diagnostic status at the start of therapy, that is, meeting clinical criteria for that outcome, moderated the changes. Data were collected as part of routine care at an outpatient clinic at a Veterans Affairs (VA) Hospital. The sample consisted of 29 couples. Pre and postmeasures were obtained at the first and final sessions ($M_{sessions}$ = 15.52 $SD$ = 7.19). Multilevel models examining changes across time for all partners found that the difference between pre and posttherapy scores for relationship satisfaction ($b$ = 10.85, $p$ < .01) and depression symptoms ($b$ = −1.61, $p$ < .05) was significant. Moreover, diagnostic status moderated treatment effects for all outcomes: the difference between pre and posttherapy scores was significant for partners who met clinical criteria for relationship distress ($b$ = 13.93, $p$ < .001), PTSD ($b$ = −12.39, $p$ < .01), and depression ($b$ = −7.64, $p$ < .001). Although PTSD and depression are not the focus of treatment, results indicate EFT is effective at reducing relationship distress and individual symptomatology in veterans and their partners.

*Keywords:* couples, emotionally focused therapy, posttraumatic stress disorder, relationship satisfaction, veterans

*Supplemental materials:* https://doi.org/10.1037/cfp0000210.supp

Military service can impact psychological and relational functioning for service members and their partners, the most widely recognized outcome being the lifetime prevalence of posttraumatic stress disorder (PTSD), which ranges from 8% to 19% (Dohrenwend et al., 2006; Wisco et al., 2014).

This article was published Online First December 20, 2021.

Geoffrey W. Corner https://orcid.org/0000-0001-9243-4719

Hector F. De Los Santos https://orcid.org/0000-0002-3806-7062

Michael B. Ganz and Hannah F. Rasmussen are co-first authors.

We have no conflicts of interest to disclose. This research was supported by the National Science Foundation Graduate Research Fellowship Program DGE-1418060 (Hannah F. Rasmussen) and DGE-1418060 (Geoffrey W. Corner). We wish to thank veterans everywhere for their service and to the intrepid couples in our clinic who have painstakingly worked to improve their relationships.

Correspondence concerning this article should be addressed to Michael B. Ganz, Psychology Service, VA Long Beach Health Care System, 5901 E. 7th Street (06/116B), Long Beach, CA 90822, United States. Email: Michael.Ganz@va.gov

Combat exposure is accepted as an occupational hazard for all service members. However, combat is not the only source of trauma for many veterans. Service members report experiencing childhood trauma more frequently than the civilian population even prior to enlisting (Seifert et al., 2011; Wolfe et al., 2005). In addition, Military Sexual Trauma (MST) is an all-too common traumatic experience that may precipitate PTSD, particularly for female veterans (Dutra et al., 2012; Maguen et al., 2012). PTSD is implicated in a number of deleterious outcomes for service members and partners, such as the development of depression (e.g., Ikin et al., 2010; see Stander et al., 2014 for a review) and relationship distress, such as lower marital satisfaction (LeBlanc et al., 2016) and higher incidence of divorce (MacLean & Elder, 2007). Moreover, depression may have a unique impact on relationship functioning (Beck et al., 2009).

Couple therapy is a valuable avenue through which a single treatment can increase relationship satisfaction while simultaneously decreasing PTSD and depression symptoms (Erbes et al., 2008; Ikin et al., 2010; Johnson, 2002). Emotionally Focused Couple Therapy (EFT; Johnson, 2005) is well-positioned to treat PTSD in veterans and their partners (Blow et al., 2015), and preliminary evidence suggests EFT shows promise treating relationship distress and PTSD symptoms in a veteran population (Weissman et al., 2018). In a sample of veterans and their partners, the present study tests the preliminary effectiveness of EFT as a treatment for relationship distress, PTSD, and depressive symptoms in a real-world clinical setting. Utilizing pre and posttherapy assessments from couples referred to a Veterans Affairs (VA) clinic for treatment of relationship distress, this study expands the existing literature by examining treatment outcomes in a larger sample than previous research with veterans (Weissman et al., 2018), and using dyadic analysis to account for the interdependence between partners.

## PTSD and Close Relationships

A large body of literature exists documenting the links between PTSD and romantic relationship functioning (see Campbell & Renshaw, 2018 for a review). Evidence suggests there is a complex interplay between relational health and PTSD symptoms such that one exacerbates or ameliorates the other in an iterative and cyclical process. Specifically, studies of veterans and their partners show PTSD is linked to increased relationship distress, and elevated psychological and physical aggression toward partners (Dekel & Monson, 2010; Monson et al., 2009; Taft et al., 2011). Researchers have developed a number of conceptual models depicting the interpersonal nature of PTSD, including individual and couple factors that impact the ways in which trauma reverberates through romantic relationships (the Dyadic Relationship Model; Gerlock et al., 2014; the Dyadic Responses to Trauma Model; Marshall & Kuijer, 2017; the Cognitive-Behavioral Interpersonal Theory of PTSD; Monson et al., 2010; the Couple Adaptation to Traumatic Stress; Nelson Goff & Smith, 2005; Oseland et al., 2016). Research demonstrates that PTSD symptoms undermine multiple components of couple functioning by reducing intimacy and safety, and increasing conflict in the relationship (Goff et al., 2006; Johnson, 2002; Monson et al., 2009; Solomon, Dekel, & Mikulincer, 2008).

Taking a systemic perspective, the couple relationship both influences and is influenced by the *PTSD+* individual, that is, the person experiencing PTSD, and their partner (Nelson Goff & Smith, 2005; Oseland et al., 2016). Evidence suggests relationship distress activates, aggravates, and maintains PTSD symptoms in the trauma survivor (Guay et al., 2006; Keane et al., 2006) and PTSD symptoms diminish partners' sense of security in the relationship (Solomon, Dekel, & Zerach, 2008). Conversely, romantic relationship satisfaction is associated with decreases in PTSD symptoms overtime (LeBlanc et al., 2016). Interestingly, *both* PTSD+ individuals and their partners report deficits in emotional (e.g., Cook et al., 2004) and physical intimacy (see Yehuda et al., 2015 for a review). While these findings underscore the value of considering couple functioning in PTSD treatment, the degree to which traumatic events need to be disclosed or directly addressed in conjoint treatment is still unknown. While disclosure is often helpful for PTSD+ individuals (e.g., Balderrama-Durbin et al., 2013; Koenen et al., 2003), it may increase relational and psychological distress in their partners (Campbell & Renshaw, 2012; Lev-Wiesel & Amir, 2001).

The theoretical and practical overlap in symptoms and aspects of relationship functioning (e.g., emotional numbing and deficits in emotional intimacy), suggests conjoint treatment may be particularly important for the treatment of PTSD

(Monson et al., 2012). Specifically, couple therapy targeting key aspects of the relationship that are conceptually and empirically relevant to the ways in which trauma is processed within the couple system may have the greatest impact on both relationship functioning and PTSD symptoms (Oseland et al., 2016). Moreover, interventions like EFT, which prioritize reducing couple conflict and increasing emotional closeness, rather than disclosing traumatic experiences, may have a more positive effect on individual partners and the relationship as a whole (Campbell & Renshaw, 2012; Lev-Wiesel & Amir, 2001).

## EFT: An Attachment-Based Intervention for Relationship Distress and PTSD

EFT is an attachment-based couple psychotherapy treatment that relieves relationship distress by helping couples create a more secure relationship (Johnson, 2005). Through the lens of attachment science, EFT defines couple distress in terms of emotional disconnection and attachment insecurity (Wiebe & Johnson, 2016). Therefore, EFT interventions aim to enhance partners' emotional accessibility and responsiveness—the foundation of secure attachment (Bowlby, 1988)—with the ultimate goal of increasing partners' sense of security, protection, and comfort in the relationship (Moser & Johnson, 2008). In session, partners are prompted to access, process, and express with vulnerability their salient emotional experiences in the relationship, especially as they pertain to barriers to connection. Couples learn their default cycle of conflict and they relearn how to support one another. Listening and responding to one another in emotionally attuned ways supports emotion regulation and restructures couple interactions to work toward attachment security.

Theoretical and empirical evidence support the supposition that EFT is ideal for couples struggling to cope with PTSD—a disorder characterized by a reduced sense of safety and dysregulated negative emotion (Greenman & Johnson, 2012). Research examining psychological adjustment following a traumatic experience has found that insecure attachment may be a risk factor in the development of PTSD (Andersen et al., 2011; Benoit et al., 2010) suggesting that improvements in attachment security could assist in ameliorating PTSD symptoms (Basham, 2008). Attachment theory, which posits that securely attached individuals have better emotion regulation and more effectively ask for and utilize support in their close relationships (Bowlby, 1988; Mikulincer & Shaver, 2005), provides a foundation for understanding how EFT can improve the couple relationship and individual functioning. Specifically, the overarching goal of increasing attachment security can have cascading impacts on individual partners' emotion regulation (Mikulincer & Shaver, 2005) and sense of safety—both in the relationship and in more distal circumstances (Coan et al., 2006). Indeed, for couples in which one partner experienced childhood abuse, completing EFT treatment was associated with greater relationship satisfaction (Dalton et al., 2013) and a decrease in PTSD symptoms (MacIntosh & Johnson, 2008).

To date, a single study has examined the efficacy of EFT in a sample of PTSD+ veterans and their partners (Weissman et al., 2018). The pilot study of seven couples found that veterans' PTSD symptoms significantly decreased pre to posttherapy, but only reported trend level improvements in veterans' depression symptoms and relationship satisfaction. Moreover, partners of the veterans showed significant improvements in depression symptoms and relationship satisfaction pre to posttherapy. The present study builds on this preliminary work by testing the efficacy of EFT in a larger sample of veterans and their partners, expanding sources of trauma beyond combat exposure, assessing change in relationship satisfaction, and PTSD and depression symptoms for both partners, and using dyadic data to better address the reciprocal nature of couple relationships.

## Present Study

The present study examines the effectiveness of EFT as a treatment for individual symptomology and relationship distress in veterans and their partners. The data were collected as part of quality assurance in the course of couple therapy at a VA medical center. To test changes in individual symptomology before and after treatment, we measured PTSD and depression symptoms. Depression symptoms were assessed due to the high rates of comorbidity between PTSD and depression in veterans (Ikin et al., 2010) and the association between depression and relationship distress (Beck et al., 2009). Importantly, both partners in a couple completed measurements of relationship satisfaction as well as PTSD and

depression symptoms. Expanding on previous research (Weissman et al., 2018), we examined our hypotheses in a dyadic framework which allowed us to properly account for the interdependence of partners' responses. In addition, treatment and measures were administered by therapists of different training levels to couples representing the diversity and complexity of patients seen in a real-world, clinical setting.

In the present study, we tested three hypotheses in a sample of couples completing EFT in the VA mental healthcare system: we hypothesized that from pre to posttherapy, veterans and their partners would report increases in relationship satisfaction (H1) and decreases in PTSD (H2) and depression symptoms (H3). Couples included in this study were referred to treatment for relationship distress but were not included or excluded on the basis of other symptoms of interest, that is, PTSD and depression. Therefore, we examined (a) whether changes in the three outcome measures from pre to posttherapy were in the expected direction for the entire sample and (b) whether these changes differed depending on whether veterans and their partners met criteria for clinically significant levels of that outcome at the start of therapy. For the latter series of tests, we hypothesized that changes in each outcome would be larger for veterans and partners reporting clinically significant pretherapy symptoms. Support for our hypotheses would suggest EFT is a viable, clinically validated treatment for couple distress *and* individuals who exhibit PTSD and depressive psychopathology, which could reduce overall treatment burden on both patients and providers.

## Method

### Participants

Participants were 29 heterosexual couples completing treatment for relationship distress at a southern California VA medical center. At the start of therapy, couples had been together for an average of 12.62 years ($SD$ = 11.85) and were married (65%), engaged (7%), or dating (28%). Most partners (72%) had children (52% from a previous relationship; 41% from the current relationship, and 7% from both a previous and the current relationship). In the majority of couples, the male partner was the veteran ($n$ = 23), but the sample included female-veteran ($n$ = 3) and dual-veteran ($n$ = 3) couples. Veterans served an average of 4.95 years ($SD$ = 3.56) in the Army (32%), Navy (23%), Marine Corps (35%), Airforce (7%), and Coast Guard (3%). Participants were approximately middle-aged ($M$ = 44.41, $SD$ = 14.29) and racially and ethnically diverse (White non-Hispanic/Latinx, 40%; Hispanic/Latinx, 33%; Black/African American, 14%; multiracial, 8%; and Asian, 5%). PTSD+ partners reported significant variability in traumatic events (e.g., military combat exposure, childhood physical and sexual abuse, sexual violence). Fifty seven percent had not completed, 17% previously completed, and 26% concurrently were engaged in an evidenced-based, group or individual treatment for PTSD (e.g., Cognitive Processing Therapy, Prolonged Exposure).

### Procedure

As a routine part of couple therapy at a VA medical center in Southern California, couples completed measures of psychological and relational functioning before and after treatment. The local Institutional Review Board acknowledged these data were categorized as Quality Assurance/Quality Improvement (QA/QI) thereby approving their use in the present study. Couples in distress were referred to the Couples & Family Clinic, where EFT was the treatment of choice. Most couples saw a therapist who was a psychology trainee (i.e., graduate or postdoctoral student) completing a 6-month rotation in the clinic. While on rotation, trainees completed an EFT didactic-practicum with weekly instruction in a group setting and weekly individual supervision for ongoing EFT cases. As part of supervision, trainees audio-recorded all therapy sessions. Supervisors, licensed staff psychologists (first and third authors), reviewed one tape per week to monitor trainees' adherence to EFT and couples' progress. Licensed staff psychologists also engaged in couple therapy for veterans and their partners.

Couples were referred from any type of provider in the VA healthcare system and did not need to be engaged in any other mental health treatment to qualify for services. All referred couples were initially screened on the telephone to exclude and refer out couples where moderate to severe intimate partner violence (IPV) or severe alcohol/substance use disorders (AUD/SUD) were present. When couples started therapy, they completed a four-session assessment

process: initial appointment to discuss reason for referral, individual biopsychosocial intake appointments for each partner (including assessment of partners' exposure to traumatic events), and one feedback session to review/refine the case conceptualization and finalize appropriateness for EFT versus other treatment models. During the assessment phase, typically at the initial appointment, veterans and partners completed measures of mental and relational health symptomatology. Measures assessed relationship satisfaction, PTSD symptoms, and depression symptoms. Couples that received treatment in later years of the present study period also completed a measure of attachment security (The Experiences in Close Relationships-Short; Wei et al., 2007), which was used to inform clinical impressions but was not considered a treatment outcome. Couples completed intake measures in the waiting area and were instructed not to discuss or look at one another's responses. Couples then proceeded through a course of active EFT treatment. Treatment was considered complete when the couple and therapist mutually agreed that targeted goals had been achieved. All couples who completed a full course of treatment in the clinic were readministered measures at the end of treatment, typically during one of the final two sessions. All couples who received therapy at the VA clinic and completed the relationship satisfaction measure before and after therapy were included in the study.

Data were recorded by psychology trainees upon completion of their 6-month rotation in the Couples & Family clinic. They were instructed to enter pre and posttherapy measures for all couples that completed measures at both time points. Staff psychologists entered their treatment data periodically throughout the year. Data were entered in this fashion for the purpose of examining clinic performance, therefore therapists recorded final measure scores, not individual item responses, which precluded our ability to provide individual alphas for the measures used in this sample. Since these data were collected during normal clinical operations, outcome measures were only given to couples who had a planned treatment termination; no data were gleaned from couples who precipitously disengaged from treatment. As such, we were unable to systematically track attrition rates or examine individual or couple factors that may contribute to the likelihood of completing a full course of treatment. In order to provide context for the present study, we estimate that approximately 370 couples were referred to and seen by the Couples & Family Clinic during the study period. Of those, approximately 80% were fielded by Social Work and not systematically tracked. Of the remaining 20% referred to Psychology, approximately 10% received psychoeducation or other conjoint treatment, for example, cognitive-behavioral conjoint therapy (CBCT) for PTSD, instead of EFT. Therefore, a rough estimate of the total sample, including noncompleters, is approximately 66 couples suggesting that our sample of 29 completers is about 44% of the total number of couples who initiated treatment in Psychology during the study period. In addition, missing data were the result of treatment decisions by individual therapists. Two couples and an additional three partners were missing posttreatment PTSD measures (missing postdata, $n = 7$); the difference between pretherapy PTSD symptoms, $t(56) = 0.06$, $p = .95$, and pretherapy relationship satisfaction, $t(56) = 1.15$, $p = .26$, for partners with and without posttherapy PTSD scores was not significant. Two couples did not complete depression measures at pre or posttreatment, one couple was missing pretreatment depression measures, eight couples were missing posttreatment depression measures, and one veteran was missing posttreatment depression measures (missing predata, $n = 6$; missing postdata, $n = 19$). The difference between pretherapy depression symptoms for partners with and without posttherapy depression scores was not significant, $t(50) = 0.97$, $p = .34$, and the difference between pretherapy relationship satisfaction for partners with and without depression measures was not significant, $t(56) = 1.39$, $p = .17$.

The present study includes couples who engaged in treatment between 2017 and 2019. Both the number of sessions completed upon termination ($M = 15.52$, $SD = 7.19$), and the training level of the therapist were controlled for in all analyses. Thirty five percent of couples were treated by a practicum student ($n = 10$), 31% by an intern ($n = 9$), 7% by a postdoctoral fellow ($n = 2$), and 28% by a staff psychologist ($n = 8$).

## Measures

### *Relationship Satisfaction*

Relationship satisfaction was assessed using the 16-item Couples Satisfaction Inventory-16

(CSI-16; Funk & Rogge, 2007), which has a cut score of 51.5 for distress. Total possible scores can range from 0 to 81, wherein higher scores indicate higher levels of relationship satisfaction. In samples of couples seeking treatment for relationship distress (Roddy et al., 2018) and military couples (Anderson et al., 2013), the CSI-16 showed high internal consistency (α = .91 and .98, respectively). Psychometric analysis for the CSI-16 suggests that a 6-point differential represents reliable change (i.e., change not due to chance; Funk & Rogge, 2007). In the present study, 53% of veterans and their partners scored ≤51 on the CSI-16 at the pretherapy assessment, indicating clinically significant relationship distress, and were classified as *Distress+ partners*.

### *PTSD Symptoms*

The PTSD Check List-5 (PCL-5; Weathers et al., 2013) is a 20-item questionnaire used to assess symptoms corresponding to the diagnostic criteria for PTSD in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; American Psychiatric Association, 2013). Utilizing a 5-point scale ranging from *not at all* (0) to *extremely* (4), respondents indicate how much they have been bothered by each symptom over the past month. The PCL-5 does not require respondents to focus on a specific event (e.g., military combat) so scores can refer to symptoms in response to other traumatic experiences (e.g., medical or childhood trauma). Total scores can range from 0 to 80, with a cut score of 33 for detecting possible PTSD (Wortmann et al., 2016). Moreover, psychometric analysis for the PCL-5 with veterans suggests that a 5-point differential represents reliable change and a 10-point differential represents clinically significant change (Wortmann et al., 2016). The PCL-5 has demonstrated strong internal consistency in trauma-exposed college students (α = .94; Blevins et al., 2015) and military populations (α = .98; Wortmann et al., 2016). In the present study, 40% of individuals (17 veterans, 6 partners) scored ≥33 on the PCL-5 at the pretherapy assessment and were operationalized as *PTSD+ partners*.

### *Depression Symptoms*

Depression symptoms were assessed using the Patient Health Questionnaire (PHQ-9; Kroenke et al., 2001), which is the nine-item depression module of the Patient Health Questionnaire (Spitzer et al., 1999). Participants report on the severity of depressive symptomatology experienced in the past 2 weeks using a scale ranging from *not at all* (0) to *nearly every day* (3). Total scores range from 0 to 27 with higher scores indicating more severe depression. The PHQ-9 has shown high internal consistency in studies of veterans (α = .86; Corson et al., 2004) and couples coping with infertility (α = .86; Maroufizadeh et al., 2019). Research suggests score fluctuations of ≥5 points indicate reliable change (McMillan et al., 2010). In the present study, 33% of veterans and partners scored ≥10 on the PHQ-9 at the pretherapy assessment, indicating clinically significant depression defined as at least "Moderate," and were classified as *Depression+ partners*.

## Data Analytic Plan

To test our hypotheses, we conducted a series of multilevel models, which were selected to account for interdependence in the two observations from each individual (pre to posttherapy) and observations from partners. The approach detailed by West et al. (2014) was used to model this interdependence. Specifically, models included residual variance for each partner at each time point and covariance between pre and posttherapy observations for male and female partners, between partners' observations at each time point, and between partners' observations over time (e.g., covariance between male partners' pretherapy and female partners' posttherapy). The effect of time (i.e., pre vs. posttherapy) was included in all models to test differences in pre and posttherapy levels of relationship satisfaction (H1) and mental health symptoms (H2 and H3). Additional models included interactions between time and diagnostic status (e.g., PTSD+) to examine whether changes in outcomes from pre to posttherapy differed based on diagnostic status. Simple slopes analyses were used to investigate significant interactions between time and diagnostic status. To measure the effect size of significant findings we reported Hedges's *g* calculated from means and pooled standard deviations and weighted according to the size of each sample (Hedges & Olkin, 1985).

All models controlled for age, gender, length of relationship, marital status, veteran status, number of sessions, and therapist training level (i.e., preintern, intern, postdoc, or staff). In addition,

models examining changes in PTSD symptoms controlled for previous/current engagement with other forms of PTSD treatment. Additional sensitivity analyses controlling for only those currently engaged in PTSD-focused treatment are provided in Supplemental Materials. We examined gender differences by testing interactions between gender and the effect of time; none were significant, so no interactions with gender were included in final models to report more parsimonious and interpretable results. Models testing changes in relationship satisfaction controlled for clinically significant PTSD and depression, models testing changes in PTSD symptoms controlled for clinically significant relationship distress and depression, and models testing changes in depression symptoms controlled for clinically significant PTSD and relationship distress. This decision was made to uniquely predict variance in each outcome rather than their shared variance. Sensitivity analyses showed that, despite our small sample, the results were not significantly affected by the inclusion or exclusion of our covariates. All continuous variables (e.g., length of relationship, age) were mean-centered, gender and time were dummy-coded (i.e., 0 = female/pretherapy and 1 = male/posttherapy), and the variables marital status and other PTSD treatment were contrast coded (i.e., −.5 = unmarried/.5 = married and −.5 = no other PTSD treatment/.5 = previous/concurrent PTSD treatment). These decisions were made to ensure the interpretability of model intercepts and parameter estimates, particularly those for interactions.

## Results

### Descriptive

Table 1 presents means and standard deviations for study variables. At the pretherapy assessment, veterans reported significantly higher depression symptoms. At both assessments, veterans and partners that were classified as PTSD+ or Depression+ reported significantly higher PTSD and depression symptoms. Table 2 presents bivariate correlations for study variables. The pre and posttherapy assessments of each treatment outcome were positively associated. Both assessments of PTSD symptoms were positively associated with both assessments of depression symptoms. Posttherapy relationship satisfaction was inversely associated with posttherapy PTSD symptoms. Relationship duration was negatively associated with pretherapy relationship satisfaction and positively associated with pre and posttherapy PTSD symptoms. Number of sessions was negatively associated with both assessments of relationship satisfaction and positively associated with posttherapy PTSD and depression symptoms. Age was associated with relationship duration and posttherapy PTSD symptoms.

### Hypothesis 1: Relationship Satisfaction Pre to Posttherapy

Results from models testing changes in relationship satisfaction are presented in Table 3. Relationship satisfaction significantly increased from pre to posttherapy for all partners (left column). After adjusting for control variables, the difference between average pre and posttherapy relationship satisfaction scores was 10.85 points, 95% confidence interval (CI) [4.76, 16.94]. The effect size of treatment was medium to large (Hedge's $g = 0.74$). In addition, meeting clinical criteria for relationship distress (Relationship Distress+) significantly moderated the effect of time in predicting relationship satisfaction (right column). After adjusting for control variables and main effects, the difference between average pre and posttherapy relationship satisfaction scores for Relationship Distress+ partners was 13.93 points, 95% CI [7.96, 19.91]. The effect size for treatment in the Relationship Distress+ group was large (Hedge's $g = 1.76$). Results from simple slopes analyses probing this interaction are presented in Figure 1 (panel A). There were significant estimated increases in relationship satisfaction for Relationship Distress+ partners, whereas estimated increases in relationship satisfaction for nondistressed partners were not significant.

### Hypothesis 2: PTSD Symptoms Pre to Posttherapy

Results from models testing changes in PTSD symptoms are presented in Table 4. Overall changes in PTSD symptoms from pre to posttherapy were not significant (left column). However, PTSD+/− status significantly moderated the effect of time in predicting PTSD symptoms (right column). After adjusting for control

**Table 1**

*Mean and Standard Deviations of Key Study Variables*

| Variable | Time | All *M* (*SD*) | Veterans (*n* = 32) *M* (*SD*) | Non-veterans (*n* = 26) *M* (*SD*) | *t*-test | Distress+ (*n* = 31) *M* (*SD*) | Distress− (*n* = 27) *M* (*SD*) | *t*-test | PTSD+ (*n* = 23) *M* (*SD*) | PTSD− (*n* = 35) *M* (*SD*) | *t*-test | Depression+ (*n* = 19) *M* (*SD*) | Depression− (*n* = 33) *M* (*SD*) | *t*-test |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Relationship satisfaction | Pre | 49.03 (*15.24*) | 52.13 (*14.87*) | 45.23 (*15.10*) | −1.74 | 37.71 (*9.96*) | 62.04 (*8.11*) | 10.10*** | 45.78 (*11.35*) | 51.17 (*17.14*) | 1.33 | 47.95 (*12.04*) | 51.61 (*16.89*) | 0.83 |
| | Post | 59.64 (*13.17*) | 62.19 (*11.82*) | 56.50 (*14.26*) | −1.66 | 56.03 (*10.81*) | 63.78 (*14.56*) | 2.32* | 59.22 (*13.10*) | 59.91 (13.40) | 0.20 | 60.32 (*10.89*) | 60.15 (*14.89*) | −0.04 |
| PTSD symptoms | Pre | 27.72 (*20.94*) | 32.56 (*19.95*) | 21.77 (*20.96*) | −2.00 | 31.77 (*20.90*) | 23.07 (*20.37*) | −1.60 | 50.09 (*11.65*) | 13.03 (*9.30*) | −13.42*** | 39.68 (*19.78*) | 17.06 (*15.21*) | −4.62*** |
| | Post | 22.22 (*18.64*) | 26.50 (*17.46*) | 17.00 (*19.08*) | −1.86 | 26.35 (*19.86*) | 17.92 (*16.59*) | −1.64 | 36.62 (*16.79*) | 12.13 (*12.22*) | −6.03*** | 33.19 (*14.37*) | 12.07 (*13.07*) | −5.01*** |
| Depression symptoms | Pre | 7.54 (*5.72*) | 9.38 (*5.73*) | 5.22 (*4.89*) | −2.77** | 7.92 (*5.93*) | 7.15 (*5.59*) | −0.48 | 11.56 (*4.42*) | 5.41 (*5.19*) | −4.26*** | 13.58 (*4.14*) | 4.06 (*2.88*) | −9.75*** |
| | Post | 5.54 (*5.59*) | 6.50 (*5.73*) | 4.53 (*5.40*) | −1.11 | 7.30 (*6.19*) | 3.68 (*4.28*) | −2.13* | 10.46 (*5.24*) | 3.08 (*3.92*) | −4.95*** | 9.93 (*5.44*) | 2.91 (*3.83*) | −4.61*** |
| Relationship duration | Pre | 12.62 (*11.85*) | 12.50 (*11.67*) | 12.77 (*12.29*) | 0.09 | 16.10 (*12.55*) | 8.63 (*9.74*) | −2.50* | 16.39 (*14.83*) | 10.14 (*8.78*) | −1.82 | 14.05 (*13.41*) | 9.18 (*6.58*) | −1.76 |
| Age | | 44.41 (*14.29*) | 45.41 (*14.71*) | 43.19 (*13.96*) | −0.58 | 44.42 (*13.35*) | 44.41 (*15.57*) | −0.00 | 47.35 (*15.69*) | 42.49 (*13.17*) | −1.27 | 46.47 (*15.12*) | 41.48 (*11.72*) | −1.33 |
| Years of service | | 4.95 (*3.56*) | 4.95 (*3.56*) | — | — | 5.71 (*4.27*) | 4.32 (*2.83*) | −1.09 | 5.44 (*3.88*) | 4.36 (*3.16*) | −0.84 | 5.64 (*4.31*) | 4.46 (*3.10*) | −0.83 |
| Number of sessions | | 15.52 (*7.19*) | 15.34 (*6.96*) | 15.73 (*7.60*) | 0.20 | 16.97 (*8.78*) | 13.85 (*4.36*) | −1.67 | 17.00 (*7.36*) | 14.54 (*7.01*) | −1.28 | 14.79 (*3.51*) | 15.73 (*9.08*) | 0.43 |

*Note*. Relationship duration measured in years. Distress = Relationship Distress. Rows shaded in grey indicate pre-therapy values for outcome measures. PTSD = posttraumatic stress disorder.
* $p < .05$. ** $p < .01$. *** $p < .001$.

**Table 2**
*Bivariate Correlations Between Key Study Variables*

| | Variable | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Relationship satisfaction$_{Pretherapy}$ | — | | | | | | | | |
| 2 | Relationship satisfaction$_{Posttherapy}$ | .29* | — | | | | | | | |
| 3 | PTSD symptoms$_{Pretherapy}$ | −.19 | −.09 | — | | | | | | |
| 4 | PTSD symptoms$_{Posttherapy}$ | −.11 | −.31* | .73** | — | | | | | |
| 5 | Depression symptoms$_{Pretherapy}$ | .08 | .07 | .58** | .65** | — | | | | |
| 6 | Depression symptoms$_{Posttherapy}$ | −.21 | −.20 | .64** | .85** | .61** | — | | | |
| 7 | Relationship duration | −.31* | −.14 | .29* | .36** | .03 | .04 | — | | |
| 8 | Number of sessions | −.30* | −.31* | .20 | .35* | −.07 | .38* | .18 | — | |
| 9 | Years of service | −.19 | −.22 | .16 | .12 | .20 | .26 | .10 | .09 | — |
| 10 | Age | −.03 | −.17 | .16 | .34* | .20 | .09 | .60** | .19 | .05 |

*Note.* Relationship duration measured in years. PTSD = posttraumatic stress disorder.
* $p < .05$. ** $p < .01$.

variables and main effects, the difference between average pre to posttherapy PTSD symptoms was −12.28 points for PTSD+ partners 95% CI [−19.29, −5.24]. The effect size for treatment in the PTSD+ group was large (Hedge's $g$ = 0.94). Results from simple slopes analyses probing this interaction are presented in Figure 1 (panel B). There were significant estimated decreases in PTSD symptoms from pre to posttherapy for PTSD+ partners.

### Hypothesis 3: Depression Symptoms Pre to Posttherapy

Results from models testing changes in depression symptoms are presented in Table 5. Depression symptoms significantly decreased from pre to posttherapy for all partners (left column). After adjusting for control variables, the difference between average pre and posttherapy depression symptoms on the PHQ-9 was −1.61 points, 95% CI [−3.20, −0.01]. The effect size of treatment was small to medium (Hedge's $g$ = 0.35). In addition, Depression+/− status significantly moderated the effect of time in predicting depression symptoms (right column). After adjusting for control variables and main effects, the difference between average pre to posttherapy depression symptoms for Depression+ partners was −7.64 points on the PHQ-9, 95% CI [−9.60, −5.67]. The effect size for treatment in the Depression+ group was medium to large (Hedge's $g = 0.77$). Results from simple slopes analyses probing this interaction are presented in Figure 1 (panel C). There were significant estimated decreases in depression symptoms from pre to posttherapy for Depression+ partners, whereas estimated decreases in depression symptoms for Depression− partners were not significant

## Discussion

The present study demonstrates the preliminary effectiveness of EFT as a treatment to reduce relationship distress, PTSD, and depression symptoms in veterans and their partners who complete a course of conjoint treatment. As anticipated, average posttherapy relationship satisfaction was significantly greater than pretherapy relationship satisfaction for all partners (H1). However, examination of diagnostic status as a moderator of this effect revealed that only partners who reported clinically significant relationship distress at the start of therapy demonstrated higher average posttherapy relationship satisfaction. Average PTSD symptoms were lower posttherapy, but only for the PTSD+ group (H2). Finally, average posttherapy depression symptoms were lower, and diagnostic status moderated this effect such that the treatment effect was stronger for Depression+ partners (H3). These findings provide support for EFT as an efficacious treatment for couples in distress that may also be beneficial in improving individual symptomatology, particularly when one or both partners are experiencing clinically significant mental health problems.

In line with previous research, couples showed significant improvements in their relationship satisfaction and PTSD+ partners showed significant reductions in PTSD symptoms after completing EFT. Specifically, these developments

**Table 3**
*Differences Between Average Pre and Posttherapy Relationship Satisfaction*

| | Relationship satisfaction ($n$ = 29 men, 29 women) | | | |
|---|---|---|---|---|
| | Treatment effect | | Treatment effect by diagnostic status ($n$ = 31 Distress+, 27 Distress−) | |
| Fixed effects | *B* | [95% CI] | *B* | [95% CI] |
| Intercept | 45.77*** | [35.63, 55.92] | 55.80*** | [48.17, 63.42] |
| Covariates | | | | |
| Male | 1.03 | [−3.63, 5.69] | 2.94 | [−0.96, 6.85] |
| Age | 0.02 | [−0.27, 0.30] | −0.04 | [−0.26, 0.17] |
| Relationship duration | −0.02 | [−0.47, 0.42] | 0.06 | [−0.26, 0.38] |
| Marital status | −3.41 | [−7.95, 1.12] | −1.42 | [−4.73, 1.89] |
| Session | −0.66* | [−1.18, −0.15] | −0.44* | [−0.82, −0.07] |
| Therapist training level | 0.92 | [−2.63, 4.46] | 1.00 | [−1.56, 3.57] |
| Veteran status | 5.54* | [0.78, 10.30] | 3.28 | [−0.89, 7.45] |
| PTSD+ | −0.44 | [−5.15, 4.28] | −1.57 | [−5.36, 2.21] |
| Depression+ | −0.01 | [−0.02, 0.01] | −0.01 | [−0.02, 0.01] |
| Variables of interest | | | | |
| Time | 10.85** | [4.76, 16.94] | 3.22 | [−2.94, 9.38] |
| Relationship Distress+ | — | — | −19.79*** | [−24.66, −14.92] |
| Relationship Distress+ × Time | — | — | 13.93*** | [7.96, 19.91] |
| Variance and covariance parameters | | | | |
| Variance parameters | | | | |
| $\text{Women}_{\text{Pre}}$ | 186.46*** | [107.04, 324.80] | 99.47** | [55.81, 177.30] |
| $\text{Men}_{\text{Pre}}$ | 202.56** | [114.76, 357.52] | 76.18** | [41.96, 138.30] |
| $\text{Women}_{\text{Post}}$ | 169.10*** | [97.59, 293.02] | 161.05*** | [93.92, 276.18] |
| $\text{Men}_{\text{Post}}$ | 131.04** | [73.11, 234.86] | 118.48*** | [68.20, 205.81] |
| Covariance parameters | | | | |
| $\text{Women}_{\text{Pre to Post}}$ | .19 | [−.20, .52] | .09 | [−.29, .44] |
| $\text{Men}_{\text{Pre to Post}}$ | .11 | [−.28, .47] | −.10 | [−.46, .30] |
| $\text{Couple}_{\text{Pre}}$ | .53*** | [.21, .75] | .54*** | [.20, .76] |
| $\text{Couple}_{\text{Post}}$ | .75*** | [.52, .88] | .75*** | [.53, .88] |
| $\text{Couple}_{\text{Men's Pre to Women's Post}}$ | −.18 | [−.52, .21] | −.20 | [−.53, .20] |
| $\text{Couple}_{\text{Women's Pre to Men's Post}}$ | .21 | [−.18, .55] | .01 | [−.37, .39] |

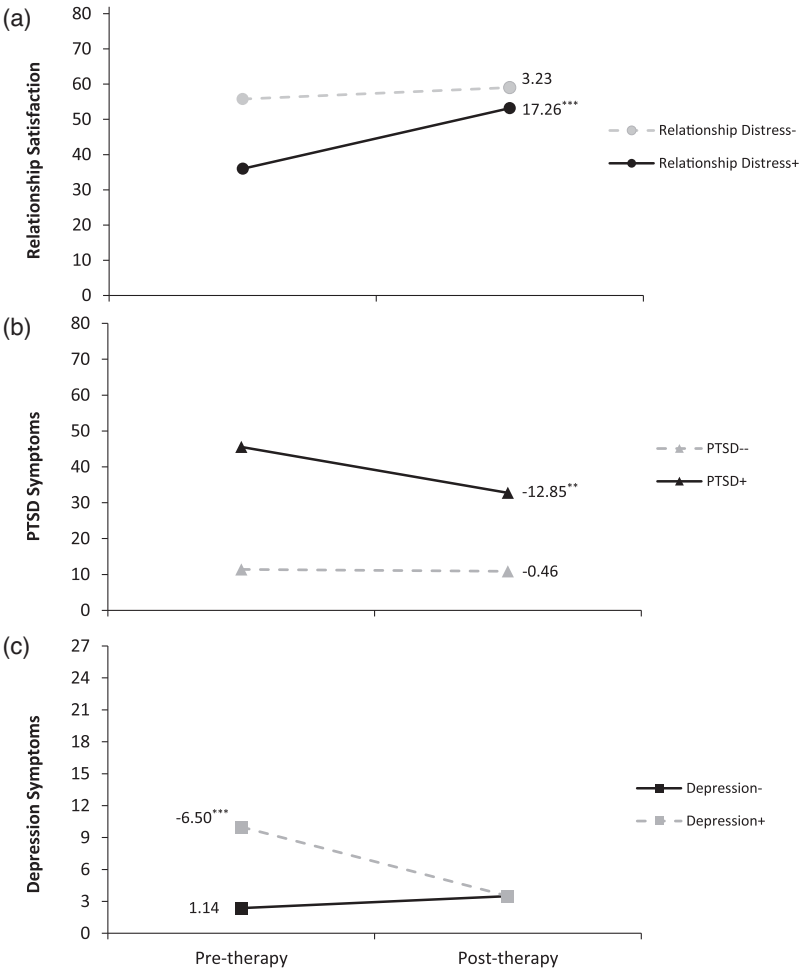
*Note*. All continuous variables are grand mean centered, Marital Status was contrast coded (i.e., −0.5 vs. 0.5), the categories of female, nonveteran, Relationship Distress−, PTSD−, and Depression− were the comparison groups. Distress = Relationship Distress. CI = confidence interval. PTSD = posttraumatic stress disorder.
* $p < .05$. ** $p < .01$. *** $p < .001$.

replicate previous studies reporting enhanced relationship satisfaction and PTSD symptom reduction following EFT treatment in couples coping with PTSD (MacIntosh & Johnson, 2008) and veterans and their partners (Weissman et al., 2018). In the present study, the difference between average pre and posttherapy relationship satisfaction was greater than 6-points for the sample as a whole and for partners classified as Relationship Distress+, which suggests that, on average, couples experienced reliable improvements to their relationships (Funk & Rogge, 2007). In addition, for PTSD+ partners, the difference between average pre and posttherapy PTSD symptoms was greater than 10-points suggesting PTSD+ partners experienced reliable, clinically significant changes in their PTSD symptoms following treatment (Wortmann et al., 2016). The medium to large effect sizes reported here for changes in veterans' and partners' relationship satisfaction and PTSD symptoms are promising but may overestimate the effects given we did not include treatment noncompleters.

Building on previous EFT and PTSD research, the present study included an ecologically valid sample making the findings more generalizable to military and veteran couples with a wide range of relationship quality. Whereas Weissman et al. (2018) excluded couples with severe relationship distress, did not include dual-veteran couples, only included veterans with combat-related trauma, and required veterans to be in treatment for PTSD, the present study included data from all couples that completed EFT and pre and posttherapy measures at the VA Medical Center.

**Figure 1**

*Simple Slopes Analyses for Interactions With Time and Diagnostic Status Predicting Relationship Satisfaction and PTSD and Depression Symptoms*




* $p < .05$. ** $p < .01$. *** $p < .001$.

Other conjoint PTSD treatments, such as CBCT, also screen out couples with severe relationship distress (Monson et al., 2012). However, given the severity of relationship distress in this population (MacLean & Elder, 2007), this study provides promising, preliminary evidence that EFT may be an efficacious treatment for *both* relationship distress and PTSD even in couples with severe relationship distress.

Moreover, the current findings expand the applicability of EFT as a treatment for couples with more diverse trauma histories. Weissman et al. (2018) required veterans to be enrolled in concurrent PTSD treatment. However, in the present study, only about one-third of partners who endorsed clinically significant PTSD symptoms were enrolled in treatment for PTSD at the same time that they were enrolled in couple treatment. Further, controlling for PTSD treatment (i.e., none, or past/current) did not impact the results, which suggests pre to posttherapy differences in PTSD symptoms were due, in large part, to EFT. In addition, either partner or both could meet criteria for PTSD following any type of traumatic event, making these results more generalizable than previous research that required

**Table 4**
*Differences Between Average Pre and Posttherapy PTSD Symptoms*

| | PTSD symptoms ($n$ = 29 men, 29 women) | | | |
|---|---|---|---|---|
| | Treatment effect | | Treatment effect by diagnostic status ($n$ = 23 PTSD+, 35 PTSD−) | |
| Fixed effects | *B* | [95% CI] | *B* | [95% CI] |
| Intercept | 16.17 | [−0.05, 32.39] | 13.07** | [3.79, 22.35] |
| Covariates | | | | |
| Male | −1.63 | [−11.32, 8.07] | −2.54 | [−9.44, 4.35] |
| Age | 0.24 | [−0.22, 0.70] | 0.02 | [−0.26, 0.30] |
| Relationship duration | 0.05 | [−0.65, 0.75] | 0.04 | [−0.37, 0.46] |
| Marital status | 0.35 | [−6.02, 6.73] | 0.54 | [−3.29, 4.37] |
| Session | 0.40 | [−0.35, 1.16] | 0.07 | [−0.38, 0.51] |
| Therapist training level | 0.68 | [−4.69, 6.05] | −0.35 | [−3.37, 2.66] |
| Veteran status | 12.06* | [2.29, 21.75] | 4.05 | [−2.58, 10.68] |
| Relationship Distress+ | 7.70 | [−1.51, 16.91] | 2.53 | [−3.41, 8.47] |
| Depression+ | 0.01 | [−0.01, 0.03] | 0.00 | [−0.01, 0.02] |
| Other PTSD treatment | 3.64 | [−8.53, 15.80] | 5.24 | [−1.89, 12.38] |
| Variables of interest | | | | |
| Time | −4.54 | [−9.42, 0.34] | −0.46 | [−5.60, 4.68] |
| PTSD+ | — | — | 34.61*** | [28.02, 41.20] |
| PTSD+ × Time | — | — | −12.39** | [−19.43, −5.36] |
| Variance and covariance parameters | | | | |
| Variance parameters | | | | |
| $Women_{Pre}$ | 363.32** | [204.48, 645.51] | 89.02** | [45.54, 174.04] |
| $Men_{Pre}$ | 402.79** | [225.26, 720.23] | 147.58** | [78.47, 277.53] |
| $Women_{Post}$ | 228.31** | [123.33, 422.66] | 142.67** | [76.70, 265.37] |
| $Men_{Post}$ | 290.17** | [158.95, 529.72] | 252.55** | [139.11, 458.48] |
| Covariance parameters | | | | |
| $Women_{Pre\ to\ Post}$ | .72*** | [.46, .86] | .38* | [−.04, .68] |
| $Men_{Pre\ to\ Post}$ | .60*** | [.26, .81] | .48** | [.10, .74] |
| $Couple_{Pre}$ | .24 | [−.16, .57] | .06 | [−.38, .47] |
| $Couple_{Post}$ | .43* | [.03, .71] | .50** | [.12, .75] |
| $Couple_{Men's\ Pre\ to\ Women's\ Post}$ | .02 | [−.37, .41] | −.03 | [−.43, .39] |
| $Couple_{Women's\ Pre\ to\ Men's\ Post}$ | .33 | [−.10, .64] | .21 | [−.23, .57] |

*Note*. All continuous variables were grand mean centered, Marital Status and Other PTSD treatment were contrast coded (i.e., −0.5 vs.0.5), categories of female, nonveteran, Relationship Distress−, PTSD−, and Depression− were the comparison groups. Time = Pre to posttherapy where pretherapy = 0. CI = confidence interval. PTSD = posttraumatic stress disorder.
* $p < .05$. ** $p < .01$. *** $p < .001$.

partners to have experienced combat-related trauma (Weissman et al., 2018), childhood sexual trauma (MacIntosh & Johnson, 2008), or single-gender, single-type trauma (e.g., childhood abuse in the female partner only; Dalton et al., 2013). The high rates of childhood adversity in veterans and the range of possible criterion A events, for example, combat, military sexual trauma, suggest the current findings are valuable when considering appropriate treatments for military and veteran couples.

Similar to relationship satisfaction, average posttherapy depression symptoms were significantly lower than pretherapy depression symptoms for all partners, but when diagnostic status was included in the model, the difference between pre and posttherapy depression symptoms was only significant for partners that reported at least "moderate" depressive symptoms at baseline (i.e., Depression+). These findings build on previous literature reporting only trend level decreases in depression symptoms in veterans following treatment with EFT (Weissman et al., 2018). In the present study, the difference between average pre and posttherapy depression symptoms was greater than 5-points for partners who were classified as Depression+, while the difference for all partners did not meet the standard of reliable change (McMillan et al., 2010). This suggests partners who met the cut-off score to indicate the presence of probable depression at the start of therapy (Kroenke et al., 2001) likely

**Table 5**
*Differences Between Average Pre and Posttherapy Depression Symptoms*

| | Depression symptoms ($n$ = 27 men, 27 women) | | | |
|---|---|---|---|---|
| | Treatment effect | | Treatment effect by diagnostic status ($n$ = 19 Depression+, 33 Depression−)[a] | |
| Fixed effects | *B* | [95% CI] | *B* | [95% CI] |
| Intercept | 5.17** | [1.51, 8.84] | 2.36 | [−0.04, 4.76] |
| Covariates | | | | |
| Male | −0.86 | [−3.56, 1.83] | −1.15 | [−3.30, 1.00] |
| Age | 0.04 | [−0.08, 0.15] | −0.01 | [−0.09, 0.06] |
| Relationship duration | 0.01 | [−0.16, 0.19] | −0.07 | [−0.19, 0.05] |
| Marital status | −0.17 | [−1.58, 1.24] | 0.29 | [−0.66, 1.23] |
| Session | −0.12 | [−0.30, 0.07] | 0.07 | [−0.04, 0.18] |
| Therapist training level | −0.08 | [−1.28, 1.13] | 0.17 | [−0.90, 1.25] |
| Veteran status | 1.06 | [−1.66, 3.77] | 1.56 | [−0.26, 3.37] |
| PTSD+ | 6.41*** | [3.78, 9.04] | 4.47*** | [2.51, 6.44] |
| Relationship Distress+ | −0.13 | [−2.78, 2.53] | 0.07 | [−1.72, 1.86] |
| Variables of interest | | | | |
| Time | −1.61* | [−3.20, −0.01] | −1.13 | [−1.10, 3.37] |
| Depression+ | — | — | 7.64*** | [5.67, 9.60] |
| Depression+ × Time | — | — | −7.64*** | [−9.60, −5.67] |
| Variance and covariance parameters | | | | |
| Variance parameters | | | | |
| $Women_{Pre}$ | 15.50** | [7.99, 30.05] | 4.71** | [2.38, 9.29] |
| $Men_{Pre}$ | 33.97** | [18.32, 62.97] | 22.42** | [12.06, 41.69] |
| $Women_{Post}$ | 22.97 | [6.81, 77.52] | 18.29** | [8.86, 37.76] |
| $Men_{Post}$ | 29.27* | [12.10, 70.80] | 26.30** | [12.97, 53.34] |
| Covariance parameters | | | | |
| $Women_{Pre\ to\ Post}$ | .68*** | [.17, .90] | .00 | [−.57, .57] |
| $Men_{Pre\ to\ Post}$ | .35 | [−.16, 71] | .20 | [−.29, .61] |
| $Couple_{Pre}$ | −.16 | [−.56, .29] | −.03 | [−.50, .46] |
| $Couple_{Post}$ | .58** | [.06, .85] | .52** | [.09, .79] |
| $Couple_{Men's\ Pre\ to\ Women's\ Post}$ | .15 | [−.33, .57] | −.22 | [−.63, .28] |
| $Couple_{Women's\ Pre\ to\ Men's\ Post}$ | .13 | [−.42, .61] | .04 | [−.44, 50] |

*Note*. All continuous variables are grand mean centered, Marital Status was contrast coded (i.e., −0.5 vs.0.5), the categories of female, nonveteran, PTSD−, Relationship Distress−, and Depression− were the comparison groups. Time = Pre to posttherapy where pretherapy = 0. CI = confidence interval. PTSD = posttraumatic stress disorder.
[a] One couple had pre but not posttherapy data so were not assigned a Depression+/− classification.
* $p < .05$. ** $p < .01$. *** $p < .001$.

experienced a reliable decrease in symptoms after EFT to their relationships from pre to posttherapy.

Notably, couples provided data on relationship satisfaction and individual symptomatology as part of routine care within an outpatient clinic at a VA Medical Center, which heavily relies on psychology trainees to render the service. Whereas Weissman et al. (2018) only used doctoral-level clinicians, the present study suggests EFT is efficacious in addressing relationship distress and trauma and depression symptoms among veterans and their partners with staff and predoctoral, trainee clinicians. The knowledge that EFT is still effective when delivered by therapists in training is a key contribution of the present study as trainees make up almost 30% of VA healthcare workers (Geppert, 2016).

## Clinical Implications

The present study underscores that prioritizing relationship health should be a top clinical treatment concern for providers who are seeking to mitigate the effects of depression and trauma. With respect to PTSD, it is possible that EFT could be an effective treatment option to help address PTSD, but more rigorous research on this topic is needed. In particular, it is possible EFT may have benefits for coupled PTSD+ individuals who otherwise may be unwilling to address PTSD symptoms with

the exposure-based techniques that are the hallmark of many trauma-focused treatments. Further, for many partners, ongoing relationship distress may take a greater psychological toll than concomitant PTSD and depressive symptoms as relationship security is a fundamental need (Johnson, 2002). Consequently, improving relational health may be a more pressing concern for coupled individuals with PTSD or depression. Moreover, research examining the cross-partner effects of PTSD and relationship satisfaction (Monk & Nelson Goff, 2014; Weinberg et al., 2016), suggest that there could be exponential benefits of conjoint treatment, such that improving PTSD symptoms, in turn, improves relationship functioning, which, in turn, improves PTSD symptoms and so on.

### Limitations and Future Directions

Although the findings presented here show support for the preliminary effectiveness of EFT as a treatment for relationship distress and individual symptomatology, they must be interpreted in the context of the study limitations. First, due to the fact that this study was not prospective in nature, only those completing EFT were included in the study. Therefore, study estimates do not include relationship, depression, and PTSD outcomes for treatment noncompleters. Consequently, this paper is limited in its ability to speak to self-selection bias, working alliance, and other factors that may contribute to the successes of couples who finish an episode of care. Second, given the small sample size, the findings are limited in their generalizability. Relatedly, although the location and source of the data are a strength of the present study, examining QA/QI data from a real-world clinic meant that it was not possible to conduct power analyses in advance to determine the ideal sample size for our hypotheses. As a result, our models are likely underpowered. However, the sensitivity analyses and theoretical support for our findings suggest the present study makes a valuable contribution to the literature. Future research directions should include a well-powered, randomized clinical trial that compares EFT treatment to either a wait-list control group or another conjoint treatment, such as CBCT, where both relationship satisfaction and PTSD symptomatology are expected to improve. Although our relatively small sample size precluded examination of cross-partner effects, testing the impact of one partner on another as well as coregulatory processes is an important avenue for future inquiry. Moreover, there may be physiological underpinnings of coregulation that explain how EFT reduces distress and facilitates PTSD symptom mitigation (Beebe, 2000; Bowlby, 1988).

## Conclusion

The results of the present study suggests EFT is a promising couple treatment that improves partners' individual psychological health in addition to improving relationship quality. Strengths of the study include the use of dyadic data and appropriate statistical analyses, therapists with different levels of professional training, and an ecologically valid sample of veterans and their partners. Limitations include the lack of available attrition data, making it difficult to test for differences between couples who did and did not complete treatment, and reliance on self-report data. Additionally, while the context and setting of the data collection were a strength of the current investigation, it also limited our ability to standardize aspects of the methodology.

EFT is a couple treatment that works directly in the attachment system, creating experiences of secure connection, increasing emotional expression, and influencing partner responsiveness. Results from the present study indicate that, in the context of a treatment for relationship distress, partners also experience decreases in individual PTSD and depressive symptomatology even though these conditions are not a focus of the treatment. In other words, in the context of secure attachment, individual psychological symptoms may be soothed and mitigated. Outpatient mental health providers treating PTSD and depression in coupled individuals should take note of the potentially powerful effects of solidifying attachment security. These data add to growing evidence that providers must remain mindful of the interacting effects of relationship health and psychopathology and, consequently, prioritize the assessment of and treatment for relationship distress as part of comprehensive treatment for individuals contending with trauma and depression.

## References

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Publishing.

Andersen, T. E., Elklit, A., & Vase, L. (2011). The relationship between chronic whiplash-associated disorder and post-traumatic stress: Attachment-anxiety may be a vulnerability factor. *European Journal of Psychotraumatology*, *2*(1). Article 5633. https://doi.org/10.3402/ejpt.v2i0.5633

Anderson, J. R., Stith, S. M., Johnson, M. D., Strachman-Miller, M. M., Amanor-Boadu, Y., & Linkh, D. J. (2013). Multi-couple group and self-directed PREP formats enhance relationship satisfaction and improve anger management skills in air force couples. *The American Journal of Family Therapy*, *41*(2), 121–133. https://doi.org/10.1080/01926187.2012.671104

Balderrama-Durbin, C., Snyder, D. K., Cigrang, J., Talcott, G. W., Tatum, J., Baker, M., Cassidy, D., Sonnek, S., Heyman, R. E., & Smith Slep, A. M. (2013). Combat disclosure in intimate relationships: Mediating the impact of partner support on post-traumatic stress. *Journal of Family Psychology*, *27*(4), 560–568. https://doi.org/10.1037/a0033412

Basham, K. (2008). Homecoming as safe haven or the new front: Attachment and detachment in military couples. *Clinical Social Work Journal*, *36*(1), 83–96. https://doi.org/10.1007/s10615-007-0138-9

Beck, J. G., Grant, D. M., Clapp, J. D., & Palyo, S. A. (2009). Understanding the interpersonal impact of trauma: Contributions of PTSD and depression. *Journal of Anxiety Disorders*, *23*(4), 443–450. https://doi.org/10.1016/j.janxdis.2008.09.001

Beebe, B. (2000). Coconstructing mother-infant distress: The microsynchrony of maternal impingement and infant avoidance in the face-to-face encounter. *Psychoanalytic Inquiry*, *20*, 421–440. https://doi.org/10.1080/07351692009348898

Benoit, M., Bouthillier, D., Moss, E., Rousseau, C., & Brunet, A. (2010). Emotion regulation strategies as mediators of the association between level of attachment security and PTSD symptoms following trauma in adulthood. *Anxiety, Stress & Coping: An International Journal*, *23*(1), 101–118. https://doi.org/10.1080/10615800802638279

Blevins, C. A., Weathers, F. W., Davis, M. T., Witte, T. K., & Domino, J. L. (2015). The Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5): Development and initial psychometric evaluation. *Journal of Traumatic Stress*, *28*(6), 489–498. https://doi.org/10.1002/jts.22059

Blow, A. J., Curtis, A. F., Wittenborn, A. K., & Gorman, L. (2015). Relationship problems and military related PTSD: The case for using Emotionally Focused Therapy for couples. *Contemporary Family Therapy*, *37*, 261–270. https://doi.org/10.1007/s10591-015-9345-7

Bowlby, J. (1988). Developmental psychiatry comes of age. *The American Journal of Psychiatry*, *145*(1), 1–10. https://doi.org/10.1176/ajp.145.1.1

Campbell, S. B., & Renshaw, K. D. (2012). Distress in spouses of Vietnam veterans: Associations with communication about deployment experiences. *Journal of Family Psychology*, *26*(1), 18–25. https://doi.org/10.1037/a0026680

Campbell, S. B., & Renshaw, K. D. (2018). Posttraumatic stress disorder and relationship functioning: A comprehensive review and organizational framework. *Clinical Psychology Review*, *65*, 152–162. https://doi.org/10.1016/j.cpr.2018.08.003

Coan, J. A., Schaefer, H. S., & Davidson, R. J. (2006). Lending a hand: Social regulation of the neural response to threat. *Psychological Science*, *17*(12), 1032–1039. https://doi.org/10.1111/j.1467-9280.2006.01832.x

Cook, J. M., Riggs, D. S., Thompson, R., Coyne, J. C., & Sheikh, J. I. (2004). Posttraumatic stress disorder and current relationship functioning among World War II ex-prisoners of war. *Journal of Family Psychology*, *18*, 36–45. https://doi.org/10.1037/0893-3200.18.1.36

Corson, K., Gerrity, M. S., & Dobscha, S. K. (2004). Screening for depression and suicidality in a VA primary care setting: 2 items are better than 1 item. *The American Journal of Managed Care*, *10*(11 Pt. 2), 839–845.

Dalton, E. J., Greenman, P. S., Classen, C. C., & Johnson, S. M. (2013). Nurturing connections in the aftermath of childhood trauma: A randomized controlled trial of emotionally focused couple therapy for female survivors of childhood abuse. *Couple and Family Psychology: Research and Practice*, *2*(3), 209–221. https://doi.org/10.1037/a0032772

Dekel, R., & Monson, C. M. (2010). Military-related post-traumatic stress disorder and family relations: Current knowledge and future directions. *Aggression and Violent Behavior*, *15*(4), 303–309. https://doi.org/10.1016/j.avb.2010.03.001

Dohrenwend, B. P., Turner, J. B., Turse, N. A., Adams, B. G., Koenen, K. C., & Marshall, R. (2006). The psychological risks of Vietnam for U.S. veterans: A revisit with new data and methods. *Science*, *313*(5789), 979–982. https://doi.org/10.1126/science.1128944

Dutra, L., de Blank, G., Scheiderer, E., & Taft, C. (2012). Correlates of female veterans' perpetration of relationship aggression. *Psychological Trauma: Theory, Research, Practice, and Policy*, *4*(3), 323–329. https://doi.org/10.1037/a0026849

Erbes, C. R., Polusny, M. A., Macdermid, S., & Compton, J. S. (2008). Couple therapy with combat veterans and their partners. *Journal of Clinical Psychology*, *64*(8), 972–983. https://doi.org/10.1002/jclp.20521

Funk, J. L., & Rogge, R. D. (2007). Testing the ruler with item response theory: Increasing precision of measurement for relationship satisfaction with the Couples Satisfaction Index. *Journal of Family Psychology*, *21*(4), 572–583. https://doi.org/10.1037/0893-3200.21.4.572

Geppert, C. M. A. (2016). What is the VA? The largest educator of health care professionals in the U.S. *Federal Practitioner*, *33*(7), 6–7.

Gerlock, A. A., Grimesey, J., & Sayre, G. (2014). Military-related posttraumatic stress disorder and intimate relationship behaviors: A developing dyadic relationship model. *Journal of Marital and Family Therapy*, *40*(3), 344–356. https://doi.org/10.1111/jmft.12017

Goff, B. S. N., Reisbig, A. M., Bole, A., Scheer, T., Hayes, E., Archuleta, K. L., Henry, S. B., Hoheisel, C. B., Nye, B., Osby, J., Sanders-Hahs, E., Schwerdtfeger, K. L., & Smith, D. B. (2006). The effects of trauma on intimate relationships: A qualitative study with clinical couples. *American Journal of Orthopsychiatry*, *76*(4), 451–460. https://doi.org/10.1037/0002-9432.76.4.451

Greenman, P. S., & Johnson, S. M. (2012). United we stand: Emotionally focused therapy for couples in the treatment of posttraumatic stress disorder. *Journal of Clinical Psychology*, *68*(5), 561–569. https://doi.org/10.1002/jclp.21853

Guay, S., Billette, V., & Marchand, A. (2006). Exploring the links between posttraumatic stress disorder and social support: Processes and potential research avenues. *Journal of Traumatic Stress*, *19*(3), 327–338. https://doi.org/10.1002/jts.20124

Hedges, L. V., & Olkin, I. (1985). *Statistical methods for meta-analysis*. Academic Press.

Ikin, J. F., Creamer, M. C., Sim, M. R., & McKenzie, D. P. (2010). Comorbidity of PTSD and depression in Korean War veterans: Prevalence, predictors, and impairment. *Journal of Affective Disorders*, *125*, 279–286. https://doi.org/10.1016/j.jad.2009.12.005

Johnson, S. (2002). *Emotionally focused couple therapy with trauma survivors: Strengthening attachment bonds*. The Guilford Press.

Johnson, S. M. (2005). *Emotionally focused couple therapy*. The Guilford Press.

Keane, T. M., Marshall, A. D., & Taft, C. T. (2006). Posttraumatic stress disorder: Etiology, epidemiology, and treatment outcome. *Annual Review of Clinical Psychology*, *2*, 161–197. https://doi.org/10.1146/annurev.clinpsy.2.022305.095305

Koenen, K. C., Stellman, J. M., Stellman, S. D., & Sommer, J. F., Jr. (2003). Risk factors for course of posttraumatic stress disorder among Vietnam veterans: A 14-year follow-up of American Legionnaires. *Journal of Consulting and Clinical Psychology*, *71*(6), 980–986. https://doi.org/10.1037/0022-006X.71.6.980

Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine*, *16*(9), 606–613. https://doi.org/10.1046/j.1525-1497.2001.016009606.x

LeBlanc, N. J., Dixon, L., Robinaugh, D. J., Valentine, S. E., Bosley, H. G., Gerber, M. W., & Marques, L. (2016). PTSD and romantic relationship satisfaction: Cluster and symptom-level analyses. *Journal of Traumatic Stress*, *29*(3), 259–267. https://doi.org/10.1002/jts.22100

Lev-Wiesel, R., & Amir, M. (2001). Secondary traumatic stress, psychological distress, sharing of traumatic reminiscences, and marital quality among spouses of Holocaust child survivors. *Journal of Marital and Family Therapy*, *27*(4), 433–444. https://doi.org/10.1111/j.1752-0606.2001.tb00338.x

MacIntosh, H. B., & Johnson, S. (2008). Emotionally Focused Therapy for couples and childhood sexual abuse survivors. *Journal of Marital and Family Therapy*, *34*(3), 298–315. https://doi.org/10.1111/j.1752-0606.2008.00074.x

MacLean, A., & Elder, G. H., Jr. (2007). Military service in the life course. *Annual Review of Sociology*, *33*, 175–196. https://doi.org/10.1146/annurev.soc.33.040406.131710

Maguen, S., Cohen, B., Ren, L., Bosch, J., Kimerling, R., & Seal, K. (2012). Gender differences in military sexual trauma and mental health diagnoses among Iraq and Afghanistan veterans with posttraumatic stress disorder. *Women's Health Issues*, *22*(1), e61–e66. https://doi.org/10.1016/j.whi.2011.07.010

Maroufizadeh, S., Omani-Samani, R., Almasi-Hashiani, A., Amini, P., & Sepidarkish, M. (2019). The reliability and validity of the Patient Health Questionnaire-9 (PHQ-9) and PHQ-2 in patients with infertility. *Reproductive Health*, *16*(1). Article 137. https://doi.org/10.1186/s12978-019-0802-x

Marshall, E. M., & Kuijer, R. G. (2017). Weathering the storm? The impact of trauma on romantic relationships. *Current Opinion in Psychology*, *13*, 54–59. https://doi.org/10.1016/j.copsyc.2016.04.013

McMillan, D., Gilbody, S., & Richards, D. (2010). Defining successful treatment outcome in depression using the PHQ-9: A comparison of methods. *Journal of Affective Disorders*, *127*(1–3), 122–129. https://doi.org/10.1016/j.jad.2010.04.030

Mikulincer, M., & Shaver, P. R. (2005). Attachment theory and emotions in close relationships: Exploring the attachment-related dynamics of emotional reactions to relational events. *Personal Relationships*, *12*(2), 149–168. https://doi.org/10.1111/j.1350-4126.2005.00108.x

Monk, J. K., & Nelson Goff, B. S. (2014). Military couples' trauma disclosure: Moderating between trauma symptoms and relationship quality. *Psychological Trauma: Theory, Research, Practice, and Policy*, *6*(5), 537–545. https://doi.org/10.1037/a0036788

Monson, C. M., Fredman, S. J., & Dekel, R. (2010). Posttraumatic stress disorder in an interpersonal context. In J. G. Beck (Ed.), *Interpersonal processes in the anxiety disorders: Implications for understanding psychopathology and treatment* (pp. 179–208).

American Psychological Association. https://doi.org/10.1037/12084-007

Monson, C. M., Fredman, S. J., Macdonald, A., Pukay-Martin, N. D., Resick, P. A., & Schnurr, P. P. (2012). Effect of cognitive-behavioral couple therapy for PTSD: A randomized controlled trial. *JAMA: Journal of the American Medical Association*, *308*(7), 700–709. https://doi.org/10.1001/jama.2012.9307

Monson, C. M., Taft, C. T., & Fredman, S. J. (2009). Military-related PTSD and intimate relationships: From description to theory-driven research and intervention development. *Clinical Psychology Review*, *29*(8), 707–714. https://doi.org/10.1016/j.cpr.2009.09.002

Moser, M. B., & Johnson, S. (2008). The integration of systems and humanistic approaches in Emotionally Focused Therapy for Couples. *Person-Centered and Experiential Psychotherapies*, *7*(4), 262–279. https://doi.org/10.1080/14779757.2008.9688472

Nelson Goff, B. S., & Smith, D. B. (2005). Systemic traumatic stress: The couple adaptation to traumatic stress model. *Journal of Marital and Family Therapy*, *31*(2), 145–157. https://doi.org/10.1111/j.1752-0606.2005.tb01552.x

Oseland, L., Gallus, K. S., & Nelson Goff, B. S. (2016). Clinical application of the Couple Adaptation to Traumatic Stress (CATS) model: A pragmatic framework for working with traumatized couples. *Journal of Couple & Relationship Therapy*, *15*(2), 83–101. https://doi.org/10.1080/15332691.2014.938284

Roddy, M. K., Georgia, E. J., & Doss, B. D. (2018). Couples with intimate partner violence seeking relationship help: Associations and implications for self-help and online interventions. *Family Process*, *57*(2), 293–307. https://doi.org/10.1111/famp.12291

Seifert, A. E., Polusny, M. A., & Murdoch, M. (2011). The association between childhood physical and sexual abuse and functioning and psychiatric symptoms in a sample of U.S. Army soldiers. *Military Medicine*, *176*(2), 176–181. https://doi.org/10.7205/MILMED-D-10-00038

Solomon, Z., Dekel, R., & Mikulincer, M. (2008). Complex trauma of war captivity: A prospective study of attachment and post-traumatic stress disorder. *Psychological Medicine*, *38*(10), 1427–1434. https://doi.org/10.1017/S0033291708002808

Solomon, Z., Dekel, R., & Zerach, G. (2008). The relationships between posttraumatic stress symptom clusters and marital intimacy among war veterans. *Journal of Family Psychology*, *22*(5), 659–666. https://doi.org/10.1037/a0013596

Spitzer, R. L., Kroenke, K., Williams, J. B., & Patient Health Questionnaire Primary Care Study Group. (1999). Validation and utility of a self-report version of PRIME-MD: The PHQ Primary Care Study. *JAMA: Journal of the American Medical Association*, *282*(18), 1737–1744. https://doi.org/10.1001/jama.282.18.1737

Stander, V. A., Thomsen, C. J., & Highfill-McRoy, R. M. (2014). Etiology of depression comorbidity in combat-related PTSD: A review of the literature. *Clinical Psychology Review*, *34*(2), 87–98. https://doi.org/10.1016/j.cpr.2013.12.002

Taft, C. T., Watkins, L. E., Stafford, J., Street, A. E., & Monson, C. M. (2011). Posttraumatic stress disorder and intimate relationship problems: A meta-analysis. *Journal of Consulting and Clinical Psychology*, *79*(1), 22–33. https://doi.org/10.1037/a0022196

Weathers, F. W., Litz, B. T., Keane, T. M., Palmieri, P. A., Marx, B. P., & Schnurr, P. P. (2013). *The PTSD checklist for DSM-5 (PCL-5)*. https://www.ptsd.va.gov

Wei, M., Russell, D. W., Mallinckrodt, B., & Vogel, D. L. (2007). The Experiences in Close Relationship Scale (ECR)-short form: Reliability, validity, and factor structure. *Journal of Personality Assessment*, *88*(2), 187–204. https://doi.org/10.1080/00223890701268041

Weinberg, M., Besser, A., Zeigler-Hill, V., & Neria, Y. (2016). Bidirectional associations between hope, optimism and social support, and trauma-related symptoms among survivors of terrorism and their spouses. *Journal of Research in Personality*, *62*, 29–38. https://doi.org/10.1016/j.jrp.2016.03.002

Weissman, N., Batten, S. V., Rheem, K. D., Wiebe, S. A., Pasillas, R. M., Potts, W., Barone, M., Brown, C. H., & Dixon, L. B. (2018). The effectiveness of emotionally focused couples therapy with veterans with PTSD: A pilot study. *Journal of Couple & Relationship Therapy*, *17*(1), 25–41. https://doi.org/10.1080/15332691.2017.1285261

West, B. T., Welch, K. B., & Galecki, A. T. (2014). *Linear mixed models: A practical guide using statistical software*. CRC Press. https://doi.org/10.1201/b17198

Wiebe, S. A., & Johnson, S. M. (2016). A review of the research in emotionally focused therapy for couples. *Family Process*, *55*(3), 390–407. https://doi.org/10.1111/famp.12229

Wisco, B. E., Marx, B. P., Wolf, E. J., Miller, M. W., Southwick, S. M., & Pietrzak, R. H. (2014). Posttraumatic stress disorder in the US veteran population: Results from the National Health and Resilience in Veterans Study. *The Journal of Clinical Psychiatry*, *75*(12), 1338–1346. https://doi.org/10.4088/JCP.14m09328

Wolfe, J., Turner, K., Caulfield, M., Newton, T. L., Melia, K., Martin, J., & Goldstein, J. (2005). Gender and trauma as predictors of military attrition: A study of Marine Corps recruits. *Military Medicine*, *170*(12), 1037–1043. https://doi.org/10.7205/MILMED.170.12.1037

Wortmann, J. H., Jordan, A. H., Weathers, F. W., Resick, P. A., Dondanville, K. A., Hall-Clark, B., Foa, E. B., Young-McCaughan, S., Yarvis, J. S., Hembree, E. A., Mintz, J., Peterson, A. L., & Litz, B. T. (2016). Psychometric analysis of the PTSD Checklist-5 (PCL-5) among treatment-seeking military service members. *Psychological Assessment*, *28*(11), 1392–1403. https://doi.org/10.1037/pas0000260

Yehuda, R., Hoge, C. W., McFarlane, A. C., Vermetten, E., Lanius, R. A., Nievergelt, C. M., Hobfoll, S. E., Koenen, K. C., Neylan, T. C. & Hyman, S. E. (2015). Post-traumatic stress disorder. *Nature Reviews. Disease Primers*, *1*. Article 15057. https://doi.org/10.1038/nrdp.2015.57

Received October 1, 2020
Revision received September 1, 2021
Accepted October 8, 2021 ■