



# Resilient relationships: Role of partner responsiveness and relationship satisfaction in posttraumatic stress disorder

Eline M. Meuleman<sup>a</sup>, Johan C. Karremans<sup>b</sup> and Elisa van Ee<sup>b</sup>

## ABSTRACT

**Introduction:** Research examining relationship quality among patients with posttraumatic stress disorder (PTSD) largely focuses on the negative impact PTSD can have on patients' romantic relationships, with less attention devoted to factors that build resilience in these relationships. **Methods:** In a sample of patients undergoing treatment for PTSD (N = 89), including 49 Veterans, this study examined 1) two main effects of PTSD symptom severity and perceived partner responsiveness on relationship quality, 2) a moderating model of perceived partner responsiveness, buffering the relationship between posttraumatic stress symptoms and relationship satisfaction, and 3) a mediation model, whereby posttraumatic stress symptoms lead to less perceived partner responsiveness, which in turn leads to poorer relationship satisfaction. **Results:** A linear regression analysis revealed that posttraumatic stress symptoms were not linked to relationship satisfaction, whereas perceived partner responsiveness showed a positive association with relationship satisfaction. Veterans tended to have lower relationship satisfaction compared with non-Veterans. The moderation and mediation analyses did not show any significant direct or indirect effects. **Discussion:** Findings suggest that responsive couples can maintain a strong and supportive relationship regardless of PTSD status.

**Key words:** military, military family, Netherlands, perceived partner responsiveness, posttraumatic stress symptoms, PTSD, relationship satisfaction, resilience, treatment, Veteran

## RÉSUMÉ

**Introduction :** Les recherches sur la qualité de la relation chez les patient(e)s ayant un trouble de stress post-traumatique (TSPT) portent largement sur les effets négatifs éventuels des TSPT sur les relations romantiques, mais moins sur les facteurs qui renforcent la résilience dans ces relations. **Méthodologie :** Dans un échantillon de patient(e)s traité(e)s pour un TSPT (n = 89), y compris 49 vétéran(e)s, cette étude a porté sur 1) les deux principaux effets de la gravité des symptômes de TSPT et la réceptivité perçue des partenaires sur la qualité de la relation; 2) un modèle modérateur de la réceptivité perçue des partenaires, qui atténuent le lien entre les symptômes de stress post-traumatique et la satisfaction envers la relation et 3) un modèle de médiation, selon lequel les symptômes de stress post-traumatique entraînent une moins grande réceptivité perçue des partenaires, ce qui était associé à une moins bonne satisfaction envers la relation. **Résultats :** Une analyse de régression linéaire a révélé que les symptômes de stress post-traumatique n'étaient pas liés à la satisfaction envers la relation, tandis que la réceptivité perçue des partenaires a révélé une association positive avec la satisfaction envers la relation. Par rapport aux non-vétéran(e)s, les vétéran(e)s ont tendance à ressentir une moins grande faible satisfaction envers la relation. Les analyses de modulation et de médiation n'ont pas démontré d'effets directs ou indirects importants. **Discussion :** Selon les observations, les couples réceptifs peuvent entretenir une relation solide et solidaire, quel que soit le statut du TSPT.

**Mots-clés :** famille de militaires, militaire, Pays-Bas, réceptivité perçue des partenaires, résilience, satisfaction dans la relation, symptômes de stress post-traumatique, traitement, TSPT, vétéran(e)

## LAY SUMMARY

This research delves into how posttraumatic stress disorder (PTSD) affects relationships. Most studies focus on how PTSD negatively affects romantic relationships, but this study looked at what makes relationships resilient for patients undergoing PTSD treatment. The study population consisted of 89 patients, including 49 Veterans, and the authors explored how trauma symptoms and perceived partner support influence relationship quality. The results reveal

<sup>a</sup> Psychotraumacentrum Zuid-Nederland, Den Bosch, Brabant, Netherlands

<sup>b</sup> Behavioural Science Institute, Radboud University, Nijmegen, Gelderland, Netherlands

Correspondence should be addressed to Elisa van Ee at Psychotrauma Centre South Netherlands, Bethaniestraat 10, LJ's-Hertogenbosch, the Netherlands, 5211. Telephone: 073-658-6400. Email: [e.van.ee@reiniervanarkel.nl](mailto:e.van.ee@reiniervanarkel.nl).

that partners' supportiveness strongly affected relationship satisfaction, suggesting that couples in which one partner is dealing with PTSD can maintain a positive relationship when the other partner is supportive. This sheds light on the importance of partner support in fostering strong relationships amid struggles with PTSD.

## INTRODUCTION

Human relationships play a crucial role in promoting mental health and overall well-being.<sup>1-3</sup> Among the various aspects of human relationships, social support has been identified as a vital factor in mitigating the effects of stress and adversity.<sup>4</sup> Establishing strong social connections can give individuals a sense of belonging, purpose, and meaning in life.<sup>5</sup> This is particularly relevant for individuals who have undergone traumatic experiences, such as those diagnosed with posttraumatic stress disorder (PTSD).<sup>6-8</sup>

PTSD is a mental health disorder that may arise after exposure to a traumatic event, such as a natural disaster, combat, or physical assault.<sup>9</sup> PTSD can have detrimental effects on the quality of relationships. Social information processing theory suggests that individuals with PTSD may experience relationship dysfunction as a result of a heightened perception of potential threats.<sup>10,11</sup> This heightened perception of threat is characterized by a heightened vigilance to perceived danger, a confirmation bias toward perceived threats, and a lower threshold for reacting to perceived threats.<sup>12</sup> Research with combat Veterans has suggested that these types of social-information-processing deficits partially explain the relationship between trauma and posttraumatic stress symptoms.<sup>13</sup> Moreover, researchers have found that patients with PTSD often experience symptoms such as emotional detachment, irritability, difficulty with intimacy, depression, aggression, and violence.<sup>14,15</sup> Negative behavioural and thought patterns such as these can lead to more stress and escalating conflicts within romantic relationships.<sup>16</sup>

One factor that has received attention in the trauma-focused scientific literature is social support. Social support and PTSD have a bidirectional relationship, in which each reciprocally predicts the other over time.<sup>6-8</sup> On the one hand, patients who receive less social support exhibit more symptoms of PTSD.<sup>17</sup> On the other hand, PTSD symptoms such as insecurity, mistrust, and avoidance can erode social support over time, leading to rejection and reduced social support from others.<sup>18,19</sup> This erosion of support seems to be particularly present in romantic relationships. Indeed, meta-analyses indicate that PTSD may result in a perceived decrease in relationship quality for both the

individual with PTSD and their romantic partner.<sup>20,21</sup> One study that focused on Veterans with PTSD and their spouses found that these couples reported lower levels of warmth and increased conflict, along with greater increases in anger, anxiety, and systolic blood pressure during conflicts, compared with couples in which neither partner experienced a traumatic event.<sup>12</sup> Additionally, empirical evidence demonstrated that PTSD symptoms can negatively affect positive relationship processes and exacerbate negative ones, ultimately leading to decreased evaluations of overall relationship quality.<sup>14,22,23</sup> These impairments persist over time; a longitudinal study with a 14-year follow-up period found that PTSD symptoms among Veterans continued to be associated with relationship and health problems.<sup>24</sup>

Given the negative impact of PTSD on romantic relationships, it is important to increase resilience to negative relationship change. Perceived partner responsiveness is a type of social support considered a significant relational strength.<sup>25</sup> The concept refers to an individual's subjective evaluation of their romantic partner's emotional support and responsiveness to their needs and concerns. Perceived responsiveness is believed to develop over time through daily interactions with one's partner, culminating in an overall evaluation of the partner's level of responsiveness.<sup>26,27</sup> Some researchers suggest that the perception of support or responsiveness is more advantageous for individual well-being and relationship satisfaction than actual received support.<sup>28,29</sup> Empirical research has shown that being in a relationship with a responsive partner is associated with better mental and physical health, including higher well-being, better regulation of stress reactions, improvement in healthy behaviour, and reduced pain.<sup>30,31</sup> Moreover, higher perceived partner responsiveness is related to various romantic relationship benefits, including growth, relationship satisfaction, intimacy, and overall well-being, whereas its absence can lead to stagnation and dissatisfaction.<sup>32,33</sup>

Limited research exists on perceived partner responsiveness in the context of trauma. One study showed that partner responsiveness mediated the relation between childhood maltreatment and relationship satisfaction.<sup>34</sup> These authors hypothesized that childhood trauma may activate negative attributional styles, such as viewing

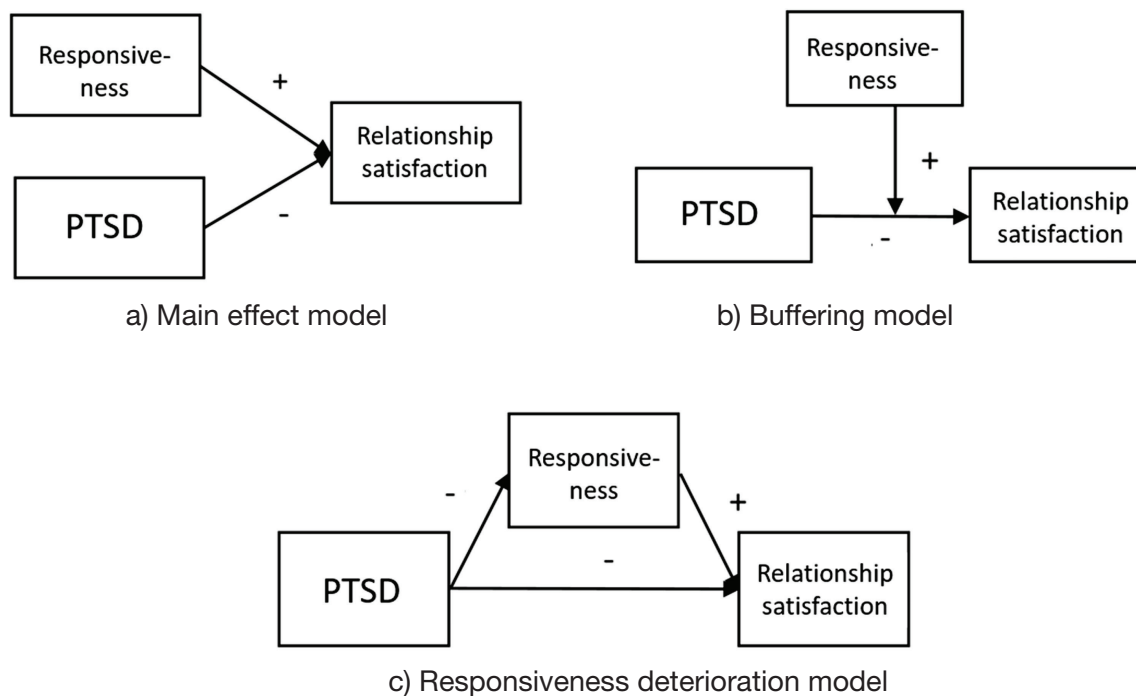
significant others as rejecting, which consequently leads to biases, such as greater distrust in a romantic partner and lower perceptions of partner responsiveness.<sup>35</sup> This is in line with an interpersonal process model of intimacy stating that individuals with trauma generally feel less understood, validated, and cared for. Other research has shown that those who perceive their partners as more responsive tend to have greater posttraumatic growth, in that more perceived partner responsiveness can lead to more beneficial psychological transformations arising from the struggle with trauma.<sup>36</sup> In all, limited research has been conducted into the relationships among PTSD, perceived partner responsiveness, and relationship satisfaction, with research so far focusing only on childhood maltreatment or posttraumatic growth.

Therefore, this study aimed to investigate the relationships among posttraumatic stress symptoms, perceived partner responsiveness, and relationship satisfaction in a cohort of patients undergoing treatment for PTSD. Additionally, the authors consider patient Veteran status, because Veterans may encounter unique challenges in their relationships as a result of military service, such as exposure to combat.<sup>37</sup>

Previous research suggests that Veterans with PTSD may hold distinct expectations regarding their partners, particularly in relation to trust and safety, which could

amplify the significance of partner responsiveness in determining relationship satisfaction.<sup>38</sup> Couples in military and Veteran populations face distinct stressors, such as extended separations during deployment, heightened psychological strains because of deployment, and post-deployment challenges such as sexual dysfunction and reduced social support.<sup>39</sup> These stressors pose risk factors for a decline in relationship functioning. Hence, the connections among partner responsiveness, relationship satisfaction, and PTSD may vary between Veterans and individuals with other trauma experiences, potentially leading to stronger effects among Veterans.

In the current research, the authors explore different models. PTSD symptom severity and perceived partner responsiveness may (negatively and positively, respectively) be independently associated with relationship satisfaction (Figure 1a). In addition, perceived partner responsiveness could act as a buffer against the negative impact of PTSD on relationship satisfaction, such that among individuals with higher perceived partner responsiveness, the negative association between PTSD symptom severity and relationship satisfaction may be weaker (Figure 1b). Finally, perceived partner responsiveness may partially account for a negative link between PTSD and relationship satisfaction (Figure 1c).



**Figure 1.** Different models of the relationship among PTSD, perceived partner responsiveness, and relationship satisfaction

PTSD = posttraumatic stress disorder.

## METHODS

### Participants and procedure

Participants were recruited from the Psychotrauma Centre South Netherlands of Reinier van Arkel. This is a specialized mental health care institute in which clients with PTSD are treated. Several target groups are treated here, including refugees, Veterans, uniformed persons, and those who experienced early childhood trauma. Treatment consists of psychoeducation, evidence-based trauma interventions, such as prolonged exposure, eye movement desensitization reprocessing (EMDR), and narrative exposure therapy, and interventions aimed at reconnection with others. Of those seeking assistance at the specialized trauma centre, 70% previously engaged in trauma-focused therapy at another facility, experiencing limited success in easing PTSD symptoms. Approximately one-quarter of these individuals were Veterans. Following PTSD treatment guidelines, the primary inclination is toward evidence-based trauma-focused interventions such as trauma-focused cognitive-behavioural therapy or EMDR. If the intended efficacy is not attained, transitioning to an alternative trauma-focused psychological treatment is considered in agreement with the patient.

Inclusion criteria required that patients be enrolled in treatment at the Psychotrauma Centre South Netherlands and currently involved in a romantic relationship. Participants were excluded if they exhibited an intellectual disability ( $IQ < 80$ ), acute suicide risk, or florid psychotic symptoms. Eligible patients were invited to participate via email and were contacted via telephone two weeks later to request their participation. Upon giving informed consent, participants completed an online questionnaire that consisted of demographic questions (age, children) and questionnaires that assessed post-traumatic stress symptoms, partner responsiveness, and relationship satisfaction. This study was preregistered (<https://osf.io/vm43z>). Ethical approval was attained from the Ethics Committee Faculty of Social Sciences of Radboud University (ECSW-2021-016).

### Measurements

Dutch translations of self-report questionnaires were used to assess PTSD symptoms, perceived partner responsiveness, and relationship satisfaction.

#### *Posttraumatic stress symptoms*

Posttraumatic stress symptoms were measured using the PTSD Checklist for DSM-5 (PCL-5).<sup>40</sup> The PCL-5 is a 20-item self-report questionnaire that assesses four

domains: re-experiencing (Criterion B; repeated, disturbing, and unwanted memories of the stressful experience), avoidance (Criterion C; avoiding memories, thoughts, or feelings related to the stressful experience), negative alterations in cognition and mood (Criterion D; trouble remembering important parts of the stressful experience), and hyper-arousal (Criterion E; irritable behaviour, angry outbursts, or acting aggressively). Participants were asked to rate the frequency with which they experienced symptoms in the past month on a scale ranging from 0 (not at all) to 4 (extremely). The cut-off score indicating probable PTSD is a sum score of all items between 31 and 33.<sup>41</sup> Items were mean aggregated, with higher scores indicating more posttraumatic stress symptoms ( $\alpha = 0.95$ ; mean = 2.3, SD = 0.8).

#### *Perceived partner responsiveness*

The perceived partner responsiveness questionnaire consisted of 18 items and was used to assess perceptions of partner responsiveness.<sup>42</sup> Participants rated each question on a nine-point scale (1 = never, 9 = always). An example item is “My partner knows what I think and feel.” Items were mean aggregated, with higher scores indicating greater perceived partner responsiveness ( $\alpha = 0.96$ , mean = 6.7, SD = 1.5).

#### *Relationship satisfaction*

Relationship satisfaction was measured using the Relationship Adjustment Scale (RAS).<sup>43</sup> The RAS is a seven-item questionnaire that measures an individual's relationship satisfaction with their partner. Participants answer each item on a 7-point scale ranging from 1 (low) to 7 (high). An example item is “How well does your partner meet your needs?” Items 4 and 7 were reverse scored. Items were mean aggregated, with higher scores indicating greater relationship satisfaction ( $\alpha = 0.88$ , mean = 5.5, SD = 1.0).

### Statistical analyses

Means, standard deviations, and inter-scale correlations between variables were computed to assess the distribution of the data and the relationships among the study variables. The PROCESS macro (Version 4.3) was used to test the moderation and mediation models in R, Version 3.6.3,<sup>44</sup> based on the client's self-reported post-traumatic stress symptoms, perceived partner responsiveness, and relationship satisfaction. These three main variables were standardized when entered into the models. All models were run with 5,000 bootstrap resamples, and the significance level was set at  $p < 0.05$ . Results of

the moderation and mediation models were interpreted by examining the standardized beta weights, 95% confidence intervals (CIs), and coefficients of determination. All analyses were run with Veteran status as a covariate. Before conducting the analyses, appropriate statistical assumptions for linear regression were assessed, including linearity, independence, homoscedasticity, normality of residuals, and absence of multicollinearity. No violations of statistical assumptions were observed. Study materials are available upon request from the corresponding author. Data are not available because of privacy regulations.

## RESULTS

### Descriptive analyses

A total of 89 clients participated in the study, 47 of whom were Veterans. The sample consisted of 60 males (67.4%) and 29 females (32.6%); 74 clients had one or more children, and 14 reported not having a child (one participant did not respond). On average, participants had a total PTSD symptom score above the cut-off point (mean = 46.6, SD = 16.4). Table 1 shows the descriptives and Pearson's correlation coefficients for the key variables of interest. The Pearson's correlation coefficients showed that PTSD symptoms were not significantly correlated with perceived partner responsiveness or relationship satisfaction.

### Main effects

A linear regression analysis was performed to examine whether relationship satisfaction was predicted by posttraumatic stress symptoms and perceived partner responsiveness. The linear regression analysis revealed a statistically significant model ( $F_{3,77} = 10.3, p < 0.001$ ), with an adjusted  $R^2$  of 0.41. Results showed that posttraumatic stress symptoms were not associated with

relationship satisfaction ( $t_{77} = -0.68, p = 0.500$ ). Perceived partner responsiveness was positively associated with relationship satisfaction, meaning that client relationship satisfaction was higher when clients perceived their partners as more responsive ( $t_{77} = 0.65, p < 0.001$ ). In addition, the variable status significantly influenced relationship satisfaction ( $t_{77} = -0.35, p = 0.047$ ). This indicates that, on average, Veterans had lower relationship satisfaction (mean = 5.44, SD = 1.05) than non-Veterans (mean = 5.55, SD = 0.95).

### Moderation analysis

A PROCESS moderation analysis was conducted to examine whether the relationship between posttraumatic stress symptoms and relationship satisfaction was moderated by perceived partner responsiveness. See Table 2, Model 2, for the results. The bootstrapped confidence interval for the moderating effect included zero. Thus, perceived partner responsiveness did not moderate the relationship between PTSD symptoms and relationship satisfaction.

### Mediation analysis

A mediation analysis was conducted to examine the indirect effect of PTSD symptoms on relationship satisfaction through perceived partner responsiveness (see Table 2, Model 3). The direct effect showed there was no significant effect of PTSD on relationship satisfaction, while controlling for partner responsiveness. Furthermore, the results showed there was no significant indirect (mediating) effect of PTSD symptoms on relationship satisfaction through perceived partner responsiveness.

## DISCUSSION

This study aimed to investigate the associations among posttraumatic stress symptoms, perceived partner responsiveness, and relationship satisfaction in a sample

**Table 1.** Means, standard deviations, and correlations for patient variables

Variable	Mean (SD)	1	2	3	4	5
1. Age in years	45.0 (9.0)	—				
2. Status*	0.53 (0.5)	0.34 <sup>†</sup>	—			
3. PTSD symptoms	2.3 (0.8)	0.02	-0.02	—		
4. Perceived partner responsivity	6.7 (1.5)	0.24 <sup>‡</sup>	0.19	-0.15	—	
5. Relationship satisfaction	5.5 (1.0)	-0.09	-0.06	-0.15	0.63 <sup>†</sup>	—

Note: N = 87, 88, and 89 for age in years, relationship duration in years, and PTSD symptoms, respectively.

PTSD = posttraumatic stress disorder.

\*For status, 0 = no Veteran, 1 = Veteran.

<sup>†</sup>  $p < 0.01$ .

<sup>‡</sup>  $p < 0.05$ .

**Table 2.** Results for the buffering and response deterioration models

Model and predictor	$\beta$ /effect	SE	95% CI	<i>F</i>	<i>df</i>	<i>R</i> <sup>2</sup>
2				14.6	4, 84	0.4
PCL-5	-0.0	0.1	-0.2 to 0.1			
PPR	0.7	0.1	0.5 to 0.9			
Status*	-0.4	0.2	-0.7 to -0.0			
PCL-5 × PPR	-0.1	0.1	-0.2 to 0.1			
3				19.3	2, 86	0.4
Direct effect	-0.1	0.1	-0.2 to 0.1			
Indirect effect	-0.1	0.1	-0.2 to 0.0			

Note: Results presented are for the buffering and response deterioration models. The predictors for Model 2 are posttraumatic stress symptoms (PCL), perceived partner responsiveness (PPR), status, and the interaction between the two (PCL × PPR), as reported by the client. The direct effect for model 3 is the effect of PCL on relationship adjustment (RAS). The indirect effect reflects the mediation effect. For both models, the outcome was relationship satisfaction. PCL, PPR and RAS scores were standardized. The  $\beta$ /effect column shows the standardized beta weights for predictors in Model 2 and the effect sizes for Model 3. SE is the bootstrapped standard error and the CI is the bootstrapped confidence interval. CI = confidence interval; PCL-5 = PTSD Checklist for DSM-5; PPR = perceived partner responsiveness; RAS = Relationship Adjustment Scale.

\* For status, 0 = no Veteran, 1 = Veteran.

of individuals undergoing treatment for PTSD. The findings show that perceived partner responsiveness was positively associated with relationship satisfaction. However, posttraumatic stress symptom severity did not appear to affect relationship satisfaction. The moderation analysis revealed that perceived partner responsiveness did not moderate the relationship between posttraumatic stress symptoms and relationship satisfaction. The mediation analysis showed no significant effects either. Overall, these results support only a primary effect of perceived partner responsiveness on relationship satisfaction in this population of patients enrolled in PTSD treatment.

The lack of a main effect indicated that relationship satisfaction remained unchanged, regardless of the severity of PTSD, a finding that contrasts with those of a previous meta-analysis.<sup>20</sup> However, that meta-analysis did not consider whether participants were receiving PTSD treatment. Studies have shown that only those who are not receiving treatment for PTSD report lower relationship satisfaction when experiencing higher levels of PTSD symptoms.<sup>45,46</sup> The absence of associations for patients enrolled in treatment could be explained by cognitive, behavioural, and emotional factors that are addressed in PTSD treatment that may positively affect both the individual and the couple.<sup>47</sup> Another possible explanation for why PTSD symptoms did not influence relationship satisfaction in this study is that this model controlled for perceived partner responsiveness. This study highlights the lack of impact of PTSD symptom severity on relationship satisfaction among patients undergoing treatment, when controlling for partner

responsiveness. Future (longitudinal) research should shed light on factors underlying the relationships found.

Previous research established that PTSD can detrimentally affect partner relationships.<sup>11,15,24</sup> The current study demonstrated that satisfaction in relationships involving a partner with PTSD is largely dependent on perceived partner responsiveness, not on PTSD symptom severity. These findings underscore the crucial role of resilience in nurturing fulfilling relationships. That is, regardless of PTSD severity, couples who are responsive to each other's needs can have a satisfying relationship. Partners can help patients cope with the aftermath of trauma and feel validated and understood, ultimately maintaining relationship satisfaction. In contrast, low responsiveness in both partners can set into motion a reciprocal cycle between PTSD patients and their partners, resulting in low levels of mutual trust, pro-relationship behaviour, and dissatisfaction.<sup>48</sup> Overall, the findings of this study suggest that responsive couples can maintain a satisfactory relationship, even when one partner is struggling with PTSD.

Interestingly, whether the patient was a Veteran or not affected relationship satisfaction. Veterans had lower relationship satisfaction compared with non-Veterans, despite both groups having similar average levels of PTSD symptoms (mean = 2.36 for non-Veterans, mean = 2.33 for Veterans). Thus, especially for Veterans, it is important that interventions prioritize enhancing partner responsiveness. For example, partners could be actively involved in (some) PTSD sessions with Veterans. Actively involving a significant other in treatment has been shown to possibly reduce PTSD symptoms over

time.<sup>49</sup> Moreover, considering these findings, there is potential relevance for military support programs providing resilience training for members and their families, even extending to those who have not undergone formal PTSD treatment.

### Limitations

When interpreting the results, it is important to consider the limitations associated with both the sample and the study design. The sample size was relatively small, which hindered investigation of gender differences and differences in types of patients. A sensitivity power analysis showed that, with this sample size and 80% power,  $d = 0.12$  is the smallest effect size that can be reliably detected. The authors used bootstrapping techniques for all analyses, however, which helped to correct for the limitations of a small dataset by simulating a larger set of samples, thereby providing more accurate parameter estimates, reducing bias, and enhancing the validity of the statistical inferences. Future research is needed with larger samples to replicate the results and to investigate the impact of differences in trauma types, treatment types, and gender.

For instance, PTSD severity differs by gender, with women being at a significantly increased risk for PTSD after exposure to trauma.<sup>50</sup> In this study, almost 70% of participants were men, which could have influenced the results. Additionally, the reliance on self-report measures may have resulted in mono-method bias. In future research, a diagnostic interview, such as the Clinician-Administered PTSD Scale for DSM-5 (CAPS-5) could be used to measure posttraumatic stress symptoms, rather than self-report questionnaires, given the recent findings that symptom estimates from the CAPS-5 and PCL-5 are not identical.<sup>51</sup> Another limitation is that all data were collected at one time point, which precludes conclusions about temporal precedence. Additional assessment waves could enable longitudinal analyses of posttraumatic stress symptoms and relationship quality.

### Conclusion

Despite the limitations, the findings of this study have interesting implications for clinical practice when working with clients with PTSD and their partners. The results underscore the significance of enhancing social support via perceived partner responsiveness during PTSD treatment, because it predicts relationship satisfaction, regardless of the severity of posttraumatic stress symptoms. Further research is necessary to investigate

trauma sub-groups that may be more susceptible to experiencing less partner responsiveness in their intimate relationships, to explore the underlying protective mechanisms contributing to partner responsiveness, and to investigate factors that either enhance or diminish relationship satisfaction of individuals with PTSD. These endeavours would offer valuable insights to guide the future design of research and interventions.

### AUTHOR INFORMATION

**Eline M. Meuleman**, ORCID: 0000-0002-9118-6773, MSc, is a PhD candidate at Vrije Universiteit Amsterdam, currently researching preadolescent mental well-being using system dynamics. Previously, she conducted research into posttraumatic stress disorder and social relations at Reinier van Arkel.

**Johan C. Karremans**, PhD, is a professor and Chair of the Social and Cultural Psychology Department, Radboud University, and studies the role of regulation processes in romantic and other close relationships.

**Elisa van Ee**, PhD, is a professor by special appointment on developmental psychotraumatology at Radboud University, a clinical psychologist, family therapist, and scientific head at the Psychotraumacenter of Reinier van Arkel.

### COMPETING INTERESTS

The authors have nothing to disclose.

### CONTRIBUTORS

Conceptualization: EM Meuleman, JC Karremans, and E van Ee

Methodology: JC Karremans and E van Ee

Investigation: EM Meuleman

Data Curation: EM Meuleman

Writing — Original Draft: EM Meuleman and E van Ee

Supervision: JC Karremans and E van Ee

Project Administration: EM Meuleman and E van Ee

Funding Acquisition: E van Ee

### ETHICS APPROVAL

This study was approved by the Commissie Wetenschappelijk Onderzoek Reinier van Arkel, Den Bosch, Netherlands, in February 2021.

### INFORMED CONSENT

Participants provided informed consent.

### REGISTRY AND REGISTRATION NO. OF THE STUDY/TRIAL

N/A

## ANIMAL STUDIES

N/A

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## PEER REVIEW

The manuscript has been peer reviewed.

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## APPENDIX

Partners were also asked to fill in the PPR and RAS scales. Pearson's correlations between the patient-reported items and partner-reported items are in the table below. Results showed that the client's and partner's self-reported perceived partner responsiveness and relationship satisfaction were significantly correlated with one another. These findings should be interpreted cautiously; doing a regular correlation analysis with dyadic data could lead to biases.

**Table A1.** Means, standard deviations, and correlations dyadic variables

	Mean (SD)	1	2	3	4
1. PTSD symptoms client	2.4(0.8)	1			
2. Perceived partner responsivity — client	6.9(1.3)	0.02	1		
3. Perceived partner responsivity — partner	6.6(1.7)	0.11	0.50**	1	
4. Relationship satisfaction — client	5.7(0.9)	0.09	0.75**	0.60**	1
5. Relationship satisfaction — partner	5.4(1.2)	-0.01	0.48**	0.83**	0.55**

Note: Listwise N = 34. \*\* $p < 0.01$ .