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Attachment-Based Relationship Satisfaction in Deployed and Non-Deployed Military Veterans with Prevalent PTSD, Anxiety, and Depression

RESEARCH

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ABSTRACT

After almost two decades of war, unprecedented operational tempos have remained high for the American military. This has left those on the home front (non-deploying veterans) a little behind since scholarship has mostly focused on veterans who have deployed. This study used a voluntary treatment-seeking sample of veterans who have not deployed (n = 49) and veterans who have deployed (n = 68) to address this gap in the literature. This study examines the associations between attachment avoidance, attachment anxiety, mental health constructs (i.e., generalized anxiety, depression, and posttraumatic stress disorder), and relationship satisfaction. Independent samples t-test comparisons, correlational analyses, and two hierarchical regressions were conducted. The variables that were significantly correlated with relationship satisfaction for both samples were attachment avoidance and attachment anxiety. In the non-deployed sample, the regression was not statistically significant. However, in the deployed sample the regression was statistically significant. In the final step of the hierarchical regression, only attachment avoidance and attachment anxiety were significant predictors of relationship satisfaction. Implications for social work and other behavioral health clinicians are highlighted, including the benefits of practitioners working to help veterans develop and maintain supportive partners and other relationships, particularly through using the attachment theory-based approach of Emotionally Focused Therapy.

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Attachment theory provides a useful framework for understanding adjustment to trauma while assessing, conceptualizing, and intervening with veterans and their partners impacted by deployment-related trauma (Clark & Owens, 2012; Currier et al., 2012). From an attachment theoretical framework, veterans dealing with psychological trauma and its related effects, principally recover when they can form and maintain supportive, accepting intimate relationships (Johnson, 2002). For some veterans, having a supportive relational base with a partner, functions as a "protective factor" to limit or prevent trauma responses (Renaud, 2008). Attachment functioning and mental health might be related to relationship satisfaction in veterans, which may differ as a function of deployment.

Military veterans who have deployed may have been exposed to traumatic experiences, to include being in combat, experiencing military sexual trauma, handling the bodies of deceased service members, seeing others who have been severely harmed or killed, caring for those who have been injured, or being present in a high threat environment (Armenta et al., 2018; Eber et al., 2013). Veterans who deploy have a greater risk of experiencing trauma-related responses such as posttraumatic stress disorder (PTSD) and subthreshold PTSD than those who did not deploy (Boscarino et al., 2018; Dursa et al., 2014). Estimates of PTSD among all veterans vary between 13.5% and 31% depending on the type and severity of trauma they experienced, and the era in which they served (Fulton et al., 2015; Kok et al., 2012; Polusny et al., 2015). Rates of subthreshold PTSD responses among veterans range from 2.3% to 22.3% (Bergman et al., 2017; Brancu et al., 2016). Moreover, veterans are more likely than their civilian counterparts to be diagnosed with PTSD (Lehavot et al., 2018; Loignon et al., 2020).

In addition to the primary symptoms of PTSD, which can include hyperarousal, avoidance, intrusive reminders, hypervigilance, mood disruption, and isolation, veterans with PTSD frequently experience extreme guilt or shame, pervasive sleep problems, and have an elevated potential for suicide (Cunningham et al., 2018; Gates et al., 2012; Kok et al., 2012; Koven, 2017; van Boxtel et al., 2018). Having PTSD and the accompanying symptoms frequently have a negative impact on a veteran's dyadic relationships. When veterans' have PTSD, they also have a decreased ability relating to and connecting with their spouses, partners, children, and other family members (Dekel & Monson, 2010; Sherman et al., 2016). Deployment-related PTSD among veterans has repeatedly been associated with negative impacts on spouse and partner relationships along with marital maladjustment (Allen et al., 2010; Dekel et al., 2005; Dekel & Monson, 2010; Laifer et al., 2019; Lester et al., 2016; Ponder, 2021; Ray & Vanstone, 2009; Renshaw et al., 2008). When veterans and their spouses have higher levels of marital satisfaction, they also frequently report that the veteran concurrently experiences lower levels of anger, depression, anxiety, and PTSD (Vest et al., 2017).

Veterans also have a high risk of experiencing depressive and anxiety disorders (DiNapoli et al., 2017; Ikin et al., 2010; Milanak et al., 2013). Twelve percent of veterans in one moderately sized primary care prevalence study met diagnostic criteria for Generalized Anxiety Disorder (GAD), and 40% of participants had co-occurring GAD and PTSD (Milanak et al., 2013). Rates of a Major Depressive Disorder (MDD) among older and younger veterans range from 5% to 17%, with 6% to 24% also experiencing PTSD (Ikin et al., 2010; Pittman et al., 2012). Possible reasons for the co-occurrence of GAD, MDD, and PTSD include the common environmental and genetic factors of these conditions, and the overlapping of symptoms within military-connected populations (Contractor et al., 2015).

Ponder and Aguirre (2012) found in a deployed veteran sample, that the more frequently the dyads in the study communicated during a combat separation, they experienced higher levels of post-deployment relationship satisfaction. Another study observed that attachment avoidance among previously deployed veterans was statistically significantly correlated with post-deployment relationship satisfaction $r(22) = -.43$, $p \leq .05$ as measured by the Dyadic Adjustment Scale (DAS; Ponder & Carbajal, 2020). However, their non-deployed partner's attachment anxiety was statistically significantly correlated $r(22) = -.58$, $p \leq .01$ with the DAS (Ponder & Carbajal, 2020). When examining how the deployed service member communicated with their non-deployed partner, they principally used attachment avoidance while their partners attachment anxiety was often statistically significantly correlated with the frequency and mode of communication. The deployed veterans attachment avoidance was negatively correlated with frequency of emails $r(22) = -.44$, $p \leq .05$, telephone $r(22) = -.51$, $p \leq .05$, and Skype frequency $r(22) = -.46$, $p \leq .05$, but the non-deployed partners attachment anxiety was positively correlated with frequency of using texting with phone $r(22) = .46$, $p \leq .05$ and frequency of using social networking platforms $r(22) = .46$, $p \leq .05$ (Ponder & Carbajal, 2020). Additionally, the only statistically significant correlation for mode of communication was veteran attachment avoidance and emails $r(22) = -.43$, $p \leq .05$.

Currently available interventions with veterans dealing with PTSD, either as individuals or conjoint therapy with their intimate partners, might improve from a greater

understanding of their attachment system. Practitioners could help veterans identify and understand their preferred attachment secondary strategy (attachment avoidance or attachment anxiety) and how this can impact the vital relationships in their lives (i.e., with spouses, partners, children, and friends). Emotionally Focused Therapy (EFT) has emerged as a helpful attachment-based intervention for assessing and treating veterans with PTSD and their partners (Greenman & Johnson, 2012; Weissman et al., 2018).

The comprehensive model of attachment-system activation as presented by Mikulincer and Shaver (2016), highlight the role of attachment styles and strategies within these relationships. This model includes three modules:

1. Seeking proximity to an external or internalized attachment figure (the attachment systems primary strategy).
2. Beneficial consequences of using this strategy effectively to attain the support of a security-providing attachment figure (which can compound distress if unattained).
3. Secondary strategies (attachment avoidance and attachment anxiety) employed in response to an attachment figure who is unavailable or unresponsive.

To the best of these researchers' knowledge, no peer-reviewed articles examining both non-deployed and deployed samples using attachment theory as a guiding theoretical framework to predict relationship satisfaction while controlling for extraneous variables of generalized anxiety, depression, and PTSD have been published. It is crucial to control depression, generalized anxiety, and PTSD since they commonly co-occur within the veteran population (Contractor et al., 2015; DiNapoli et al., 2017; Ikin et al., 2010; Milanak et al., 2013; Pittman et al., 2012). Building upon previous research from Ponder and Carbajal (2020) who used correlational analyses, this study used a larger sample size to investigate the following research question: How do attachment avoidance and attachment anxiety explain the differences in a non-deployed and deployed sample of veterans predicting their own relationship satisfaction, while controlling for the extraneous variables of generalized anxiety, depression, and PTSD?

METHODS

Data analyzed from this study were collected from veterans who sought mental health treatment at an outpatient non-profit mental health agency between 2015–2020. The nonprofit agency specializes in serving veterans, first responders, medical frontline workers, and their families. Treatment services in this agency are provided by clinical social workers, professional counselors, and marriage and family therapists. The data analyzed for this study were obtained from the demographic questionnaire, routine informed consent, and the battery of clinical assessments that every new client completes, which is used for ongoing internal program evaluation purposes. This study was approved by the University of Texas Health Science Center Institutional Review Board (HSC-SPH-20-1264). For inclusion, the data needed to represent veterans that fell within these parameters: Age 18 or older, in a committed relationship, who have completed the battery of clinical assessments, and demographic intake questionnaire.

MEASURES

Data that were collected included gender, ethnicity, relationship status, military branch, number of deployments, and level of education. This study used the following standardized assessments: PTSD Checklist-5 (PCL-5), Experiences in Close Relationships (ECR), Patient Health Questionnaire-9 (PHQ-9), Generalized Anxiety Disorder-7 (GAD-7), and the Relationship Assessment Scale (RAS). At intake, the participants were administered the Primary Care PTSD Screen (PC-PTSD-5), which is a 5-item inventory created to identify veterans who might have PTSD (Prins et al., 2016). If the veteran answered yes to three or more of the questions, they were given the PCL-5 by the intake coordinator.

PTSD Checklist-5 (PCL-5)

The PTSD Checklist-5 (PCL-5) was developed to assess for the presence of PTSD and is consistent with the *Diagnostic and Statistical Manual of Mental Disorders-5* (DSM-5; Blevins et al., 2015). The PCL-5 is comprised of 20-questions using a 4-point Likert scale with responses ranging from 0 (*not at all*) to 4 (*extremely*), which when summed, produce an aggregated score ranging from 0 to 80. Higher scores indicate the more severe presence of PTSD symptomatology. In the current study, the Cronbach's alpha of the PCL-5 was $\alpha = .94$.

Experiences in Close Relationships (ECR)

Brennan et al. (1998) developed the Experiences in Close Relationships (ECR) scale that assesses adult attachment on two factors: anxiety and avoidance. The ECR includes 36-questions using a 7-point Likert scale with responses ranging from 1 (*disagree strongly*) to 7 (*agree strongly*). The ECR produces two means for each factor and higher scores on each factor indicate a greater presence of each construct. In the current study, the Cronbach's alpha

of the attachment avoidance factor was α = .93 and the attachment anxiety factor was α = .90.

Patient Health Questionnaire-9 (PHQ-9)

Kroenke et al. (2001) developed the Patient Health Questionnaire-9 (PHQ-9) to assess for the presence of depression. The PHQ-9 responses range from 0 (*not at all*) to 3 (*nearly every day*) and scores, when summed, range from 0–27 and higher scores represent the greater severity of depression. In the current study, the Cronbach's alpha of the PHQ-9 was α = .89.

Generalized Anxiety Disorder 7 (GAD-7)

The Generalized Anxiety Disorder-7 (GAD-7) was developed to screen for GAD (Spitzer et al., 2006). The GAD-7 responses range from 0 (*not at all*) to 3 (*nearly every day*), with aggregated scores ranging from 0 to 21 and higher scores indicate a greater severity of generalized anxiety. In the current study, the Cronbach's alpha of the GAD-7 was α = .90.

Relationship Assessment Scale (RAS)

Hendrick (1988) developed the Relationship Assessment Scale (RAS) to assess relationship satisfaction. The RAS is a 7-question measure that produces a mean score ranging from 1 to 5 and higher scores indicate greater relationship satisfaction. In the current study, the Cronbach's alpha of the RAS was α = .89.

DATA ANALYSIS

Statistical analyses were performed using the Statistical Package for the Social Science (SPSS) version 26.0. The researchers examined the dataset for missing values and replaced 2.3% (233 of 10,169 values) with series means. Data were assessed and verified to be normally distributed. Vittinghoff and McCulloch (2007) assert that the minimum events per predictor is 5 to 9, while others assert two is sufficient (Austin & Steyerberg, 2015). The lowest events per predictor were in the non-deployed sample on step three of the hierarchical regression equation, which is 6.66. Also, multicollinearity was assessed and determined to be within the acceptable ranges for tolerances and Variance Inflation Factors (VIFs; Hair et al., 2010). The researchers of the present study used an alpha level of .05 for all statistical tests.

There were two samples used in this study: veterans who have not deployed (n = 49) and veterans who have deployed (n = 68). The researchers initially reviewed both samples for descriptive statistics and then conducted independent samples t-tests comparing the non-deployed and deployed samples. The researchers then conducted bivariate two-tailed Pearson correlation analyses between attachment avoidance and attachment anxiety with the mental health variables: depression, generalized anxiety, PTSD, and relationship satisfaction. Next, the researchers completed hierarchical regression models for the two samples. The hierarchical regression was first completed on the non-deployed sample then the second on the deployed sample. For both correlation and regression analyses, the data are presented in this article for veterans who have not deployed (n = 49) and who have deployed (n = 68).

Non-Deployed Sample

The average age of the non-deployed sample is 39.71 (SD = 12.09). The sample was predominantly male (59.2%), who identified as white (55.1%), and were in the Army (30.6%). The average length of service in the military was 6.02 years (SD = 5.16) with a range of 28.4 years. The average length of the relationship with their current partner was 11.05 years (SD = 12.62), with 28.6% of the participants reporting that they had completed some college courses, while 24.5% had earned an associate degree.

Deployed Sample

The average age of the deployed sample is 39.34 (SD = 9.23). The sample was predominantly male (80.9%), who identified as white (67.6%), and served in the Army (48.5%). The average length of service in the military was 9.51 years (SD = 7.35) with a range of 35.5 years. The average length of the relationship with their current partner was 9.88 years (SD = 8.32), with 25.4% of the participants reporting that they had completed some college courses, while 19.0% had earned an associate degree. All participants had at least 1 deployment with 5.9% of the deployed sample having 5 deployments. The first deployment locations were 91.2% (n = 62) in support of the Global War on Terrorism (GWOT) and 8.8% (n = 6) in support of the first Persian Gulf War. The second deployment locations were 91.4% (n = 32) in support of the GWOT and 8.6% (n = 3) in support of the first Persian Gulf War. The third deployment locations were 85.8% (n = 12) in support of the GWOT and 14.2% (n = 2) in support of the first Persian Gulf War. The fourth 10.3% (n = 7) and fifth 5.9% (n = 4) deployment locations were in support of the GWOT. The time between deployments for each deployment is (M = 16.28, SD = 8.62), years for 1 deployment (M = 13.06, SD = 5.62), years for 2 deployments (M = 11.67, SD = 5.50), years for 3 deployments (M = 9.14, SD = 4.22), years for 4 deployments, and (M = 7.74, SD = 3.86) years for 5 deployments. See Table 1 (below) for all demographic information.

CHARACTERISTIC	NON-DEPLOYED (*N*, %)		DEPLOYED (*N*, %)	
Gender				
Male	29	59.2%	55	80.9%
Female	20	40.8%	13	19.1%
Ethnicity				
White	27	55.1%	46	67.6%
African American	12	24.5%	8	11.8%
Hispanic	6	12.2%	9	13.2%
Asian	2	4.1%	–	–
Native American	–	–	1	1.5%
Hawaiian	–	–	1	1.5%
Mixed	2	4.1%	3	4.4%
Military Branch				
Air Force	10	20.4%	8	11.8%
Army	15	30.6%	33	48.5%
Navy	12	24.5%	9	13.2%
Marine Corps	12	24.5%	16	23.5%
Coast Guard	–	–	1	1.5%
More than one	–	–	1	1.5%
Number of Deployments				
One	–	–	68	100.0%
Two	–	–	35	51.5%
Three	–	–	14	20.6%
Four	–	–	7	10.3%
Five	–	–	4	5.9%
Age Group				
18–29	12	24.5%	5	7.4%
30–39	15	30.6%	37	54.4%
40–49	11	22.5%	15	22.1%
50–59	8	16.3%	9	13.2%
60 and above	3	6.1%	2	2.9%
Education				
Secondary/Diploma	14	28.6%	21	33.3%
Some college	14	28.6%	16	25.4%
Associates	12	24.5%	12	19.0%
Bachelors	4	8.2%	11	17.5%
Graduate school	3	6.1%	3	1.6%
Not reported	2	4.0%	5	3.2%

Table 1 Demographics of Sample.

Note: Non-deployed (n = 49), Deployed (n = 68).

RESULTS

Several demographic variables were put into a bivariate correlation matrix as potential covariates in the hierarchical regressions predicting relationship satisfaction. Age, race, relationship status, length of the relationship, military branch, and service status were not statistically significant. The only statistically significant covariate with relationship satisfaction was time in service $r(114) = .23$, $p < .05$, which was subsequently included in the hierarchical regression equations.

INDEPENDENT SAMPLES: T-TESTS

The PTSD score for the non-deployed (M = 44.60, SD = 20.56) and deployed sample (M = 44.61, SD = 19.84) was not statistically significant $t(115) = -.002$, $p = .99$. The attachment avoidance score for the non-deployed (M = 3.81, SD = 1.32) and deployed sample (M = 3.35, SD = 1.23) was not statistically significant $t(115) = 1.91$, $p = .06$. The attachment anxiety score for the non-deployed (M = 4.46, SD = 1.19) and deployed sample (M = 3.57, SD = 1.15) was statistically significant $t(115) = 4.08$, $p < .001$. The depression score for the non-deployed (M = 16.23, SD = 6.65) and deployed sample (M = 14.81, SD = 6.54) was not significant $t(115) = 1.15$, $p = .25$. The generalized anxiety score for the non-deployed (M = 14.00, SD = 5.94) and deployed sample (M = 13.52, SD = 5.48) was not statistically significant $t(115) = .45$, $p = .66$. Lastly, the relationship satisfaction score for the non-deployed (M = 3.04, SD = 0.94) and deployed sample (M = 3.47, SD = 1.07) was statistically significant $t(115) = -2.25$, $p = .03$. The dependent variable for this study is relationship satisfaction and the independent samples t-tests have established that there is a statistically significant difference. Therefore, the researchers split the sample into 2 groups, non-deployed and deployed.

CORRELATIONS

The researchers first wanted to establish the bivariate relationship between non-deployed and deployed samples on attachment avoidance and attachment anxiety with three mental health variables (depression, generalized anxiety, PTSD) and relationship satisfaction. In the first correlation matrix reported in Table 2, the non-deployed sample attachment avoidance was statistically significant with relationship satisfaction $r(49) = -.30$, $p < .05$. Also, in the non-deployed sample, attachment anxiety was statistically significant with depression $r(49) = .35$, $p < .05$ and PTSD $r(49) = .34$, $p < .05$. See Table 2.

In the deployed sample reported in Table 3, attachment avoidance was statistically significant with depression $r(68) = .40$, $p < .001$, generalized anxiety $r(68) = .36$,

	ECR-AVOID	ECR-ANX	PHQ-9	GAD-7	PCL-5	RAS
ECR-AVOID	1	.21	.13	.09	.07	–.30*
ECR-ANX		1	.35*	.26	.34*	–.23
PHQ-9			1	.85***	.67***	–.08
GAD-7				1	.60***	.09
PCL-5					1	–.03
RAS						1

Table 2 Non-Deployed Veteran Subsample Correlations Between Mental Health Assessments.

Note: (*n* = 49). ECR-AVOID = Experiences in Close Relationships avoidant secondary strategy, ECR-ANX = Experiences in Close Relationships anxiety secondary strategy, PHQ-9 = Patient Health Questionnaire-9, GAD-7 = Generalized Anxiety Disorder-7, PCL-5 = PTSD Checklist-5, RAS = Relationship Assessment Scale. * < .05, ** < .01, *** < .001.

	ECR-AVOID	ECR-ANX	PHQ-9	GAD-7	PCL-5	RAS
ECR-AVOID	1	.32**	.40***	.36**	.40***	–.43***
ECR-ANX		1	.24*	.27*	.38***	–.32**
PHQ-9			1	.79***	.75***	–.03
GAD-7				1	.65***	.01
PCL-5					1	.01
RAS						1

Table 3 Deployed Veteran Subsample Correlations Between Mental Health Assessments.

Note: (*n* = 68). ECR-AVOID = Experiences in Close Relationships avoidant secondary strategy, ECR-ANX = Experiences in Close Relationships anxiety secondary strategy, PHQ-9 = Patient Health Questionnaire-9, GAD-7 = Generalized Anxiety Disorder-7, PCL-5 = PTSD Checklist-5, RAS = Relationship Assessment Scale. * < .05, ** < .01, *** < .001.

$p < .01$, PTSD $r(68) = .40$, $p < .001$, and relationship satisfaction $r(68) = -.43$, $p < .001$. Also, in the deployed sample, attachment anxiety was statistically significant with depression $r(68) = .24$, $p < .05$, generalized anxiety, $r(68) = .27$, $p < .05$, PTSD, $r(68) = .38$, $p < .001$, and relationship satisfaction $r(68) = -.32$, $p < .01$. See Table 3.

HIERARCHICAL REGRESSIONS

The first hierarchical regression reported in Table 4 was conducted on veterans who did not deploy ($n = 49$). In the first step, time in service accounted for less than 1% of the variability in relationship satisfaction. In the second step, attachment avoidance and attachment anxiety were added, which explained 7.2% of the variance of relationship satisfaction, both of which were not statistically significant. In the final model, when generalized anxiety, depression, and PTSD were added (in step 3), the regression equation was not statistically significant $F(6,42) = 1.88$, $p = .11$.

The second hierarchical regression reported in Table 5 was conducted on veterans who deployed ($n = 68$). In the first step, time in service accounted for 6.6% of the variability in relationship satisfaction. In the second step, attachment avoidance and attachment anxiety were added, which explained 21.9% of the variance of relationship satisfaction. In the final model, when generalized anxiety, depression, and PTSD were added (in Step 3), the regression equation was statistically significant and explained 28.4% of the variability in relationship satisfaction $F(6,61) = 5.36$, $p < .001$. Additionally in the final model, attachment avoidance ($\beta = -.47$, $p < .001$) and attachment anxiety ($\beta = -.26$, $p < .05$) were statistically significant.

DISCUSSION

The research question guiding this study was: How do attachment avoidance and attachment anxiety explain the differences in a non-deployed and deployed sample of veterans predicting their own relationship satisfaction, while controlling for the extraneous variables of generalized anxiety, depression, and PTSD? The hierarchical regression in the non-deployed sample predicting relationship satisfaction was not statistically significant. However, in the deployed sample after controlling for the same variables,

PREDICTOR	*B*	SE B	β	*T*	95% CI FOR *B*
Step 1					
Constant	3.01	.22		13.91	[2.58, 3.45]
Time in service	.00	.00	.03	.19	[–.004, .01]
Step 2					
Constant	4.57	.69		6.62	[3.18, 5.96]
Time in service	.00	.00	–.06	–.37	[–.01, .00]
ECR-AVOID	–.20	.10	–.28	–1.90	[–.40, .01]
ECR-ANX	–.16	.12	–.20	–1.30	[–.41, .09]
Step 3					
Constant	4.45	.70		6.34	[3.03, 5.87]
Time in service	.00	.00	–.12	–.77	[–.01, .00]
ECR-AVOID	–.19	.10	–.27	–1.88	[–.40, .01]
ECR-ANX	–.17	.13	–.21	–1.32	[–.43, .09]
GAD-7	.09	.04	.55*	2.09	[.003, .17]
PHQ-9	–.06	.04	–.43	–1.52	[–.15, .02]
PCL-5	.00	.01	.00	.00	[–.02, .02]

Table 4 Non-Deployed Subsample Hierarchical Multiple Regression Analyses Predicting Relationship Satisfaction.

Note: (n = 49). ECR-AVOID = Experiences in Close Relationships avoidant secondary strategy, ECR-ANX = Experiences in Close Relationships anxiety secondary strategy, PHQ-9 = Patient Health Questionnaire-9, GAD-7 = Generalized Anxiety Disorder-7, PCL-5 = PTSD Checklist-5, CI = confidence interval; R^2 = .001 (F(1,47) = .04 p = .85) for Step 1; ΔR^2 = .072 (F(3,45) = 2.20 p = .10) for Step 2; ΔR^2 = .102 (F(6,42) = 1.88 p = .11) for Step 3. * < .05, ** < .01, *** < .001.

PREDICTOR	*B*	SE B	β	*T*	95% CI FOR *B*
Step 1					
Constant	3.11	.21		14.73	[2.69, 3.53]
Time in service	.00	.00	.26*	2.15	[.00, .01]
Step 2					
Constant	4.87	.51		9.60	[3.86, 5.88]
Time in service	.00	.00	.16	1.45	[–.001, .01]
ECR-AVOID	–.32	.10	–.36**	–3.11	[–.52, –.11]
ECR-ANX	–.16	.11	–.17	–1.46	[–.38, .06]
Step 3					
Constant	4.53	.51		8.91	[3.51, 5.55]
Time in service	.00	.00	.20	1.81	[.00, .01]
ECR-AVOID	–.42	.11	–.47***	–3.95	[–.63, –.21]
ECR-ANX	–.25	.11	–.26*	–2.24	[–.46, –.03]
GAD-7	.02	.03	.10	.55	[–.05, .09]
PHQ-9	–.01	.03	–.04	–.19	[–.07, .06]
PCL-5	.02	.01	.32	1.90	[–.001, .04]

Table 5 Deployed Subsample Hierarchical Multiple Regression Analyses Predicting Relationship Satisfaction.

Note: (n = 68). ECR-AVOID = Experiences in Close Relationships avoidant secondary strategy, ECR-ANX = Experiences in Close Relationships anxiety secondary strategy, PHQ-9 = Patient Health Questionnaire-9, GAD-7 = Generalized Anxiety Disorder-7, PCL-5 = PTSD Checklist-5, CI = confidence interval; R^2 = .066 (F(1,66) = 4.62, p < .05) for Step 1; ΔR^2 = .219 (F(3,64) = 7.17, p < .001) for Step 2; ΔR^2 = .284 (F(6,61) = 5.36, p < .001) for Step 3. * < .05, ** < .01, *** < .001.

the veteran's attachment avoidance and attachment anxiety were statistically significant in predicting their own relationship satisfaction. In this section, the researchers will situate these findings in the literature, offer recommendations for clinical practice, note the limitations, and provide direction for future research.

These findings are consistent with prior research, which found that forming and maintaining supportive relationships with intimate partners can function as a protective factor for previously deployed veterans (Johnson, 2002; Renaud, 2008; Vest et al., 2017). They also point to the benefits that these relationships provide for non-deployed veterans. Such relationships likely help service members manage the anxiety brought on by a multitude of stressors of being a veteran, including prior deployments for some, frequent moves, and transition to civilian life after their time in the service. These findings also highlight the potential negative impacts on veterans when they are unable to obtain or secure such relationships. When veterans had higher levels of attachment avoidance and attachment anxiety, they experienced lower levels of relationship satisfaction.

Ponder (2021) found that in a sample of 22 couples, the combat veterans' attachment avoidance and their partners' attachment anxiety affected their relationship satisfaction post-deployment. Dyads had trouble shifting to open versus closed ranks communication that they used during the combat separation. Closed ranks communication was an effort to intentionally stay away from certain topic areas, whereas in open ranks communication, any topic can be openly discussed. This was needed during the combat separation because of operational security concerns. However, once the dyad was reunited post-deployment, it was a difficult transition to navigate. Also, a separate study, attachment avoidance and the DAS were negatively correlated r(22) = –.43, $p \leq .05$ (Ponder & Carbajal, 2020). Using a different relationship satisfaction assessment in this study, the RAS, the researchers found a very similar correlation r(68) = –.43, p < .001.

Like veterans in prior studies, participants in the present investigation reported experiencing notable levels of PTSD symptoms and related sequela including difficulties with depression (Cunningham et al., 2018; Gates et al., 2012; Kok et al., 2012; Koven, 2017; van Boxtel et al., 2018). They also noted having related difficulties in relationships with their partners (Dekel & Monson, 2010; Sherman et al., 2016). The present study found evidence that some non-deployed veterans also experience elevated levels of PTSD, depression, generalized anxiety, and attachment-related relationship difficulties. These findings suggest that there is a broad overlap in mental health comorbidities among veterans, regardless of whether they had previously deployed to a combat zone or not.

IMPLICATIONS FOR CLINICAL PRACTICE

The findings of the present study emphasize the benefits of clinicians working to help veterans develop and maintain supportive partner relationships. Given the pattern of attachment avoidance and attachment anxiety found in this study, it is imperative that clinicians address the attachment needs of the veteran and their partner. Even more pressing is the increased risk of domestic violence, decreased marital satisfaction, and mental health that veteran couples face (Khaylis et al., 2011; McCarroll et al., 2008).

Similar to other scholarship, the researchers recommend that therapists use EFT to best address attachment avoidance and attachment anxiety that some military and veteran partners employ during times of deployment (Weissman et al., 2018). Attachment theory, the underlying theoretical framework supporting EFT, at its core, emphasizes emotional regulation and the consequences with direct implications for clinical practice. EFT is an attachment-based experiential modality that focuses on the unmet attachment needs of each partner (Greenman & Johnson, 2012). The goal of EFT is to help the couple identify their negative interactional pattern and unmet needs so that they can become emotionally connected (Greenman & Johnson, 2012). This therapeutic modality may prove most effective when working with couples where one partner has PTSD (Greenman & Johnson, 2012; Weissman et al., 2018).

In this study, the researchers found that veterans with PTSD are often avoidant, which helps to protect them when they are in active combat, but likely leads to a negative interactional pattern within the dyad. In EFT, the therapist and couple work to identify who pursues and who withdraws. From there, the therapist works to engage the withdrawer and soften the pursuer to create a secure attachment (Johnson et al., 2005). With prior military couples, this approach may be most effective as the veteran may find themselves withdrawing emotionally, which may lead to the veterans' partner fulfilling the pursuing/anxious attachment role. Ponder (2021) has found such a relationship during the GWOT, highlighting the need for a transition from closed communication (adaptive during deployment) to open communication (adaptive post-deployment) between combat veterans and their intimate partners.

The findings of this study also highlight the impact of military service on veterans as individuals and the need to provide targeted, research-informed, and culturally competent interventions directly to the veteran. When working with a client individually, there are numerous constructs that the clinician could be interested in measuring (i.e., generalized anxiety, depression, PTSD, substance misuse, sleep, and resilience). Numerous research-supported modalities could be used, such as the Cognitive Processing Therapy (CPT), Prolonged Exposure (PE), and the Eye Movement Desensitization and Reprocessing (EMDR), which have been shown to be efficacious when treating veterans (The Management of Posttraumatic Stress Disorder Work Group, 2017).

Veterans are likely to experience depressive and anxiety disorders (DiNapoli et al., 2017; Ikin et al., 2010; Milanak et al., 2013). Couples with a veteran spouse who has PTSD is more likely to experience marital distress than their peers without PTSD (Monson et al., 2009; Renshaw et al., 2008). Decreased relationship satisfaction has been linked to an increased risk of sleep disturbances, dissociation, and sexual dysfunction in veterans (Blow et al., 2015). More concerning is the risk for domestic violence that military and veteran couples face. Research that looked at violence in military-connected couples found that they are at higher risk for domestic violence than non-military couples, and among military couples those with PTSD and depression are at greater risk for domestic violence (Blow et al., 2015). Given these risk factors, it is important that therapists assess couples when one partner is a veteran, even more so when the veteran partner has PTSD. Given the attachment findings of this study, the researchers recommend using therapeutic modalities that focus on addressing the couple's attachment.

LIMITATIONS

Approximately 18% of the military is female (Defense Manpower Data Center, 2019). However, the non-deployed sample for this study was 40.8% female, and this may have impacted our findings. Also, the Defense Manpower Data Center (2019) reported that 16.8% of its population is African American. However, in the non-deployed sample, 24.5% of the participants identified as African American. Marine Corps veterans were also overly represented in this study (24.5% in the non-deployed sample and 23.5% in the deployed sample). While this study looked at relational aspects of relationship satisfaction, the data was not

dyadic in nature. Therefore, both partners did not complete the assessments. The lack of dyadic data limits the findings generalizability and the researchers understanding of the veteran couple relationship.

The study was further limited by a relatively small sample size of 117 participants. The researchers did not know or measure other relational factors that could have potentially impacted the results, including the structure of the participant's relationships. The study was further limited due to the lack of information reporting on why the participating veterans sought outpatient treatment. The impact of these combined issues restricts the degree to which these findings can be generalized to other veteran populations until further studies addressing these limitations are conducted.

FUTURE RESEARCH

Future research should collect data assessing trauma exposure, the exact type of trauma exposure(s), and more information about the nature of the veteran's relationships. A deeper investigation of these factors could provide clearer insights for clinical assessment and intervention. Future scholarship should also explore the use of longitudinal and repeated measures designs to help better determine relationships among these key variables. These methods might help identify the independent and mitigating effects of depression, generalized anxiety, PTSD, and if time in service is driving the connection between relationship satisfaction, or whether attachment avoidance and attachment anxiety are driving the association with relationship satisfaction. Future research should also assess the veteran partner and non-veteran partner to examine the impact on the dyad. Using qualitative or mixed methods with this population could help garner a richer understanding of the veteran's and their partner's perceptions regarding the impacts of their deployments and other factors on their relationships.

COMPETING INTERESTS

The authors have no competing interests to declare.

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