

Self-Compassion as a Prospective Predictor of PTSD Symptom Severity Among Trauma-Exposed U.S. Iraq and Afghanistan War Veterans

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U.S. combat veterans of the Iraq and Afghanistan wars have elevated rates of posttraumatic stress disorder (PTSD) compared to the general population. Self-compassion, characterized by self-kindness, a sense of common humanity when faced with suffering, and mindful awareness of suffering, is a potentially modifiable factor implicated in the development and maintenance of PTSD. We examined the concurrent and prospective relationship between self-compassion and PTSD symptom severity after accounting for level of combat exposure and baseline PTSD severity in 115 Iraq and Afghanistan war veterans exposed to 1 or more traumatic events during deployment. PTSD symptoms were assessed using the Clinician Administered PTSD Scale for *DSM-IV* (CAPS-IV) at baseline and 12 months ($n = 101$). Self-compassion and combat exposure were assessed at baseline via self-report. Self-compassion was associated with baseline PTSD symptoms after accounting for combat exposure ($\beta = -.59$; $p < .001$; $\Delta R^2 = .34$; $f^2 = .67$; large effect) and predicted 12-month PTSD symptom severity after accounting for combat exposure and baseline PTSD severity ($\beta = -.24$; $p = .008$; $\Delta R^2 = .03$; $f^2 = .08$; small effect). Findings suggest that interventions that increase self-compassion may be beneficial for treating chronic PTSD symptoms among some Iraq and Afghanistan war veterans.

Posttraumatic stress disorder (PTSD) is a commonly diagnosed mental health condition among U.S. veterans of the wars in Iraq and Afghanistan (Hoge et al., 2004; Kang & Hyams, 2005; Seal, Bertenthal, Miner, Sen, & Marmar, 2007). Recent

findings show that approximately 6% of Iraq and Afghanistan war veterans report symptoms to a degree that suggests a diagnosis of PTSD (Vaughan, Schell, Tanielian, Jaycox, & Marshall, 2014). The elevated prevalence of PTSD in this population is likely related to the high frequency of exposure to combat trauma (e.g., Kimbrel et al., 2015; Lapierre, Schwegler, & LaBauve, 2007; Milliken, Auchterlonie, & Hoge, 2007). Despite high levels of combat exposure, however, the majority of Iraq and Afghanistan war veterans do not develop PTSD. Therefore, it is important to identify factors beyond trauma exposure that are associated with PTSD symptoms in this population. In particular, pinpointing modifiable factors is of central importance, as this knowledge may aid in improving intervention and prevention efforts. Self-compassion may be one such factor, and further research is necessary to understand its association with PTSD symptoms.

Self-compassion may be understood from spiritual, evolutionary, and psychological perspectives. As one example of a spiritual conceptualization, Buddhist teachings characterize self-compassion as consisting of three components: attention toward suffering, intentionality regarding suffering, and

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motivation to alleviate it (Hofmann, Grossman, & Hinton, 2011; The Dalai Lama, 2001). Evolutionary conceptualizations describe compassion as an affective experience associated with soothing, attachment, and desire to alleviate suffering (Depue & Morrone-Strupinsky, 2005; Gilbert, 2005; Goetz, Keltner, & Simon-Thomas, 2010). Neff (2003a, 2003b) conceptualized self-compassion as a key aspect of psychological health comprising three interacting components that emerge when experiencing emotional suffering: self-kindness (vs. self-judgment), a sense of common humanity (vs. isolation), and mindful awareness (vs. overidentification with suffering). Associations have been observed between self-compassion and a broad range of outcomes related to psychological well-being (Neff, 2003a, 2003b; also see Neff & Germer, 2013, for a review).

A growing body of empirical literature suggests that self-compassion may be important for understanding a range of mental health problems. For example, two recent reviews found that lower levels of self-compassion were consistently and strongly associated with symptoms of depression and anxiety (MacBeth & Gumley, 2012; Neff, 2012). This literature, however, has notable limitations in that most of the studies included in these reviews were cross-sectional and based on nonclinical samples. Self-compassion is also associated with several outcomes related to PTSD, including less rumination and suppression of unwanted thoughts (Neff, 2003a) and greater ability to cope with childhood maltreatment (Vettese, Dyer, Li, & Wekerle, 2011). Only two studies have directly examined the relation between self-compassion and PTSD. In one cross-sectional study with a college student sample, self-compassion was negatively associated with the avoidance symptoms of PTSD, but not with overall PTSD symptom severity (Thompson & Waltz, 2008). In this study, however, only half of the participants had been exposed to a traumatic event, with only 10.5% screening positive for PTSD. In contrast, a 12-week prospective study by Kearney et al. (2013) showed that self-compassion was negatively associated with total PTSD symptom severity in a demographically heterogeneous sample of 42 veterans with PTSD. Thus, prior research indicates that self-compassion has theoretical relevance for understanding the development and maintenance of PTSD in war veterans. Consistent with the self-compassion literature, studies examining moral injury suggest that combat veterans may benefit from interventions that address emotional experiences associated with moral injury (e.g., Litz et al., 2009).

Another important reason to study self-compassion is that recent findings indicate that it is modifiable through targeted interventions (Beaumont, Galpin, & Jenkins, 2012; Kearney et al., 2013; Neff & Germer, 2013). For example, Beaumont et al. (2012) examined the impact of compassionate mind-training techniques on trauma-related symptoms. Thirty-two participants who experienced a traumatic event were assigned to receive either cognitive-behavioral therapy alone or in combination with compassionate mind training. Results demonstrated that participants receiving the combined intervention

reported significant increases in self-compassion posttreatment compared to participants in the cognitive-behavioral therapy only group. Neff and Germer (2013) conducted a randomized controlled study to investigate whether the mindful self-compassion program led to increases in self-compassion. Participants in this program reported significant increases in self-compassion compared to a group of waitlist controls. The intervention group also reported greater decreases in depression, anxiety, stress, and avoidance relative to the control group. Finally, in an uncontrolled treatment study by Kearney and colleagues (2013), veterans with PTSD completed a 12-week loving-kindness meditation course designed to facilitate feelings of compassion and kindness for self and others. Participants reported increases in self-compassion and decreases in PTSD symptoms at posttreatment and 3-month follow-up. Moreover, changes in self-compassion mediated the reduction in PTSD symptoms at posttreatment and 3-month follow-up.

The current study examined the association between self-compassion and PTSD symptom severity, both concurrently and prospectively, in a sample of Iraq and Afghanistan war veterans. Expanding on prior cross-sectional research, we tested the hypothesis that self-compassion would be associated with baseline PTSD symptom severity after accounting for level of combat exposure. Next, we examined the relation between self-compassion and PTSD prospectively, which is necessary for elucidating whether low self-compassion serves as a maintaining factor for PTSD symptoms (Garber & Hollon, 1991). Specifically, we hypothesized that self-compassion would predict 12-month PTSD symptom severity after accounting for both combat exposure and baseline PTSD symptom severity.

Building on prior research that demonstrated that self-compassion was primarily associated with the avoidance symptoms of PTSD among a civilian sample with trauma exposure (Thompson & Waltz, 2008), we examined the relations between self-compassion and the *DSM-IV* PTSD symptom clusters. Based on the literature on moral injury in war veterans (Litz et al., 2009), we expected that level of combat exposure would be negatively associated with self-compassion. In addition, we explored which aspects of combat exposure (e.g., being in the role of victim versus engaging in violence, involvement of civilians) were most strongly related to self-compassion. We also examined the relationship between self-compassion and trauma-related guilt, which was incorporated into the criteria for PTSD in the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM-5*; American Psychiatric Association [APA], 2013).

Method

Participants and Procedure

U.S. Iraq and Afghanistan war veterans registered for Department of Veterans Affairs (VA) health care ($N = 115$) were recruited from the Central Texas Veterans Health Care System.

Eligible participants were exposed to one or more traumatic event(s) that met Criterion A for PTSD according to the *DSM-IV-TR* (APA, 2000) during a warzone deployment. Exclusion criteria included (a) a diagnosis of schizophrenia, another psychotic disorder, or bipolar disorder; (b) current suicidal or homicidal risk that warranted crisis intervention; (c) recent initiation or discontinuation of psychiatric medications or psychotherapy to limit the influence of symptom fluctuations related to having recently started or stopped treatment; or (d) plans to relocate out of the Central Texas area within 4 months of the baseline assessment. Recruitment efforts were targeted toward oversampling veterans with mental health diagnoses.

This study was approved by the Central Texas Veterans Health Care System Institutional Review Board. Participants were recruited through direct mailing, advertising at enrollment sites, and presentations to clinical staff. Following informed consent, participants completed a semistructured clinical interview and self-report measures at baseline. Participants were asked to attend a 12-month follow-up appointment during which the clinical interview was readministered. Interviews were conducted by licensed or license-eligible psychologists or by master's-level assessment technicians who underwent intensive assessment training. Diagnostic consensus was reached in every case via weekly diagnostic review groups supervised by doctoral-level clinical psychologists with significant PTSD assessment experience.

Descriptive statistics are presented in Table 1. The sample was predominantly male (83.5%), with participants reporting an average age of 37.41 years ($SD = 10.20$). The majority of participants self-identified as Caucasian (57.4%), followed by African American (25.2%), American Indian/Alaska Native (4.3%), Asian American (2.6%), Hawaiian/Pacific Islander (1.7%), and Other (9.6%). Approximately 31.3% of participants reported being Hispanic/Latino. Participants reported completing an average of 13.78 years of education ($SD = 2.06$). The majority were Army veterans (86.1%), followed by 13.9% serving in the National Guard, 9.6% in the Marine Corps, 4.3% in the Navy, and 2.6% in the Air Force (categories were not mutually exclusive). Seventy-three (63.5%) veterans met criteria for lifetime PTSD related to warzone trauma exposure and 48 (41.7%) met criteria for current PTSD at baseline. The Clinician-Administered PTSD Scale for DSM-IV (CAPS; Blake et al., 1995) was completed at 12-month follow-up by 101 participants (87.8% of the total sample). Forty-two out of 101 (41.6%) who completed the 12-month follow-up assessment met criteria for current PTSD at follow-up. Between-groups analyses revealed that there were no differences between those who completed and did not complete the CAPS at follow-up on any study variable. Only participants who completed the CAPS at follow-up were included in the prospective regression analyses. A paired-samples t test indicated that there was a significant decrease in PTSD symptom severity from baseline assessment to 12-month follow-up, $t(100) = 2.09$, $p = .039$ of about 5 points.

Measures

The Clinician-Administered PTSD Scale for DSM-IV (CAPS; Blake et al., 1995) is a structured clinical interview designed to assess PTSD as defined in the *DSM-IV*. The CAPS yields a continuous measure of symptom severity in addition to assessing full diagnostic criteria. Interviews were based on the Criterion A event identified by each participant as the worst that occurred during warzone deployment to Iraq or Afghanistan. We used the scoring procedure, outlined by Blake et al. (1995), in which a frequency score of at least 1 on a scale of 0 = *None of the time* to 4 = *Most or all of the time* and an intensity score of at least 2 on a scale of 0 = *None* to 4 = *Extreme* were required for a particular symptom to meet criterion. Current PTSD diagnoses were based on meeting full criteria within the past month; lifetime diagnoses were based on a previous 30-day period in which each participant reported experiencing the highest level of PTSD symptoms. The CAPS is the gold-standard diagnostic interview for PTSD and exhibits excellent psychometric properties (Weathers, Keane, & Davidson, 2001). In the present study, the CAPS exhibited high internal consistency at baseline ($\alpha = .92$) and at 12-month follow-up ($\alpha = .93$). We also administered the associated feature item assessing guilt over acts of omission or commission related to the trauma.

Combat exposure was assessed at baseline using an 18-item version of the Full Combat Exposure Scale (FCES; Hoge et al., 2004). FCES items are highly relevant to Iraq and Afghanistan war conflicts and include a range of combat elements (receiving small arms fire, provided aid to wounded, being attacked or ambushed). Participants rated their frequency of exposure to each situation on a scale of 0 = *never* to 4 = *10 or more*. Scores on the FCES are associated with PTSD severity in Iraq and Afghanistan war veterans in prior research (Meyer, Morissette, Kimbrel, Kruse, & Gulliver, 2013). In the present study, the FCES was administered at baseline and yielded $\alpha = .91$. In addition to obtaining a total FCES score, individual items were identified to examine specific aspects of combat, such as engaging in violence against combatants ("Directly responsible for the death of an enemy combatant"), engaging in violence against civilians ("Directly responsible for the death of non-combatants"), other involvement of civilians ("Seeing ill/injured women or children and being unable to help"), and sustaining injuries in combat ("Being wounded/injured").

The Self-Compassion Scale (SCS; Neff, 2003b) is a 26-item self-report measure that was administered during the baseline assessment. The SCS is the most widely used measure of self-compassion (MacBeth & Gumley, 2012). It comprises six subscales: Self-Kindness, Self-Judgment, Common Humanity, Isolation, Mindfulness, and Over-Identification. Sample items include "I'm tolerant of my own flaws and inadequacies," "I try to be loving towards myself when I'm feeling emotional pain," and "When I'm down and out, I remind myself that there are lots of other people in the world feeling like I am." Each item is rated on a scale of 1 = *Almost never* to 5 = *Almost always*. Items from the Self-Judgment, Isolation, and Over-Identification subscales

Table 1
Means, Standard Deviations, and Correlations Among Study Variables

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11
1. FCES	1.38	0.79	–										
2. SCS	2.98	0.82	–.18	–									
Baseline													
3. CAPS total	42.50	29.27	.41	–.64	–								
4. Reexperiencing	10.98	9.32	.40	–.43	.87	–							
5. Avoidance	14.03	12.63	.37	–.65	.91	.67	–						
6. Hyperarousal	17.50	10.57	.33	.63	.91	.72	.75	–					
7. Guilt ^a	1.29	2.26	.26	–.27	.50	.51	.46	.39	–				
12-Months ^b													
8. CAPS total ^c	36.96	31.20	.43	.60	.72	.56	.70	.68	.25	–			
9. Reexperiencing	9.35	9.56	.33	–.42	.61	.55	.57	.52	.19	.89	–		
10. Avoidance	13.28	12.91	.39	–.60	.67	.46	.70	.62	.27	.94	.76	–	
11. Hyperarousal	14.34	11.54	.38	–.60	.71	.56	.64	.71	.22	.92	.72	.79	–
12. Guilt	1.09	2.15	.33	–.26	.28	.26	.22	.28	.37	.47	.50	.39	.43

Note. *N* = 115. FCES = Full Combat Exposure Scale mean item score; SCS = Self-Compassion Scale mean item score; CAPS = Clinician Administered PTSD Scale. With *N* = 115, for $r = .19 - .23$, $p < .05$; for $r = .24 - .30$, $p < .01$; for $r > .30$, $p < .001$.

^a*n* = 96. ^b*n* = 101. ^c*n* = 100.

were reverse-coded and summed with the remaining items so that higher scores indicated greater levels of self-compassion. A mean item score was then calculated, as previous research has demonstrated that a single higher-order factor explains the correlations among subscales (Neff, 2003b). Consistent with prior research (e.g., Neff, 2003b; Neff & Germer, 2013), the SCS demonstrated high internal consistency ($\alpha = .95$).

Data Analysis

A correlation matrix was generated to determine the zero-order level of associations among the study variables. Hierarchical regression analyses were used to test the two hypotheses, with Cohen's f^2 effect size statistics calculated to further quantify the amount of unique variance associated with the steps of the hierarchical regression analyses. To test the hypothesis that self-compassion would be associated with baseline PTSD symptom severity after accounting for combat exposure, combat exposure was entered into the regression as Step 1 and self-compassion was entered as Step 2. This hypothesis was then examined prospectively, with 12-month PTSD symptom severity as the outcome, combat exposure entered as Step 1, baseline PTSD symptom severity entered as Step 2, and self-compassion entered as Step 3.

Results

Correlations among the study variables are presented in Table 1. As expected, self-compassion was negatively associated with PTSD symptom severity at baseline. Also as expected, combat exposure was associated with PTSD symptom severity at baseline and 12-month follow-up. Consistent with our

hypotheses, self-compassion measured at baseline was negatively associated with PTSD symptom severity at 12-month follow-up. Self-compassion was negatively associated with each of the three *DSM-IV* PTSD symptom clusters at baseline and follow-up. Self-compassion was negatively associated with trauma-related guilt at baseline and follow-up. Though the coefficient between self-compassion and level of combat exposure at baseline was negative, it was not statistically significant ($r = -.18$, $p = .061$). Self-compassion was not associated with specific FCES items pertaining to killing enemy combatants, $r = -.16$, nonsignificant (*ns*); causing harm to civilians, $r = -.14$, *ns*, or seeing ill/injured civilians and being unable to help, $r = -.18$, *ns*, but was negatively associated with being injured in combat, $r = -.31$, $p = .001$.

The results from the hierarchical regression analyses are presented in Tables 2 and 3. We found support for our first

Table 2
Association of Combat Exposure and Self-Compassion With Baseline PTSD Symptom Severity

Variable	<i>B</i>	<i>SE B</i>	β	<i>t</i>	ΔR^2
Step 1					.16***
FCES	15.09	3.23	.41	4.67***	
Step 2					.34***
FCES	11.22	2.55	.30	4.40***	
SCS	–21.08	2.46	–.59	–8.57***	

Note. *N* = 115. f^2 for Step 2 = .67 (large effect). Total $R^2 = .50$. PTSD = posttraumatic stress disorder; FCES = Full Combat Exposure Scale; SCS = Self-Compassion Scale.

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

Table 3
Baseline Combat Exposure, Self-Compassion, and PTSD Symptoms as Predictors of 12-Month PTSD Symptom Severity

Variable	<i>B</i>	<i>SE B</i>	β	<i>t</i>	ΔR^2
Step 1					.19***
FCES	17.28	3.65	.43	4.74***	
Step 2					.36***
FCES	6.23	3.02	.16	2.06*	
CAPS-Baseline	0.69	0.08	.66	8.76***	
Step 3					.03**
FCES	7.34	2.96	.18	2.48*	
CAPS-Baseline	0.51	0.10	.49	5.06***	
SCS-Baseline	-9.08	3.33	-.24	-2.72**	

Note. $n = 101$. $R^2 = .58$. f^2 for Step 3 = .08 (small effect). PTSD = posttraumatic stress disorder; FCES = Full Combat Exposure Scale; SCS = Self-Compassion Scale; CAPS-Baseline = Clinician Administered PTSD Scale – Baseline.

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

hypothesis that self-compassion accounted for unique variance in PTSD symptom severity at baseline after accounting for combat exposure (Table 2; $\beta = -.59$; $p < .001$; $\Delta R^2 = .34$; $f^2 = .67$; large effect). In addition, we also found that baseline self-compassion predicted 12-month PTSD symptom severity (Table 3; $\beta = -.24$; $p = .008$; $\Delta R^2 = .03$; $f^2 = .08$; small effect) over above the effects of combat exposure and baseline PTSD symptom severity.

Discussion

The present study examined the concurrent and prospective relations between self-compassion and current PTSD symptom severity in a sample of Iraq and Afghanistan war veterans after accounting for combat exposure and baseline PTSD symptom severity. Consistent with our hypothesis, after accounting for level of combat exposure, we found a strong negative association between self-compassion and PTSD symptom severity at baseline (large effect). We then conducted a more rigorous test of the relation between self-compassion and PTSD symptom severity over time and by accounting for baseline PTSD symptom severity. As hypothesized, after accounting for combat exposure and baseline PTSD symptom severity, baseline self-compassion predicted PTSD symptom severity at 12-month follow-up. Although this finding represented a small effect, it is noteworthy in that PTSD symptoms are typically considered to be fairly stable in the absence of treatment and also because self-compassion was predictive over and above the effects of combat exposure. These findings suggest that self-compassion may influence the degree of chronicity of PTSD symptoms among Iraq and Afghanistan war veterans. As such, increasing self-compassion may be beneficial to some Iraq and Afghanistan war veterans who are struggling with PTSD symptoms. Prior research (Beaumont et al., 2012; Kearney et al., 2013; Neff & Germer, 2013), including one study with veterans (Kearney

et al., 2013), indicates that self-compassion is modifiable via targeted interventions.

These findings also extend prior research (Thompson & Waltz, 2008) by showing an association between self-compassion and each PTSD symptom cluster as defined in the *DSM-IV*, and that self-compassion is not limited to an association with the avoidance symptoms. The current findings also indicate that the association between self-compassion and PTSD is maintained over time and is not accounted for by combat exposure; however, future research is needed to shed further light onto the robustness of this association. Prospective research with at-risk samples is warranted to determine the extent to which low self-compassion may represent a pre-trauma risk factor for PTSD following trauma exposure. A second area for future research concerns the *DSM-5* and the three new or reformulated PTSD symptoms that would presumably be strongly negatively related to self-compassion (i.e., persistent and exaggerated negative beliefs about oneself, distorted cognitions about the cause of the traumatic event that leads to self-blame, persistent negative emotional state such as guilt or shame). The current findings, however, indicate that self-compassion was not as strongly related to trauma-related guilt as we had expected. In addition, the overall association between self-compassion and level of combat exposure was not as strong as expected based on the literature on moral injury (e.g., Litz et al., 2009). This finding of a lack of a strong relationship between combat exposure and self-compassion is consistent with the conceptualization of self-compassion as a stable trait (Neff, 2003a), although the lack of a precombat assessment of self-compassion precludes drawing a strong inference in this regard. Moreover, there does not appear to be a clear differential relationship between self-compassion and various aspects of combat experiences (e.g., engaging in violent actions, involvement of civilians, being on the receiving end of violent actions), although the strongest relationship was self-compassion being negatively associated with being wounded.

Additionally, research on the role of self-compassion in the treatment of PTSD is warranted, as it is currently unclear if (a) changes in self-compassion might be a mechanism of change in existing treatments for PTSD; (b) if self-compassion interventions for PTSD are efficacious as stand-alone treatments or if they should be used as an adjunct to existing empirically supported treatments; and (c) if there are particular groups of patients (e.g., patients who are particularly low on self-compassion at the outset of treatment) who are more likely to benefit from a self-compassion intervention. Moreover, it is also possible that increasing self-compassion may be helpful in promoting well-being that extends beyond reducing PTSD symptoms. For example, it is possible that residual symptoms such as shame or guilt, which are sometimes reported upon completion of an empirically supported treatment for PTSD (Lee, Scragg, & Turner, 2001), may be effectively targeted with interventions aimed at increasing self-compassion. Prior research also suggests that increased self-compassion may be associated with improvements in life satisfaction and social connectedness

(Neff & Germer, 2013) and relationship functioning (Neff & Beretvas, 2012; Yarnell & Neff, 2013). Thus, self-compassion may have implications for reintegration among returning war veterans that extend beyond its relationship with PTSD symptoms.

A strength of the present study was the longitudinal design, which allowed for the prospective examination of the impact of self-compassion on PTSD symptoms over time. Additionally, PTSD symptom severity was assessed using the CAPS, the gold-standard diagnostic interview for PTSD. Nonetheless, the current findings must be interpreted in light of several limitations. First, we did not examine the degree to which the prospective findings were impacted by participants receiving treatment for PTSD during the course of the study. All participants were registered for VA health care, and some received psychosocial treatment and/or medication between the baseline assessment and 12-month follow-up. As discussed above, the effects of psychosocial treatment on PTSD severity at follow-up may, in part, be due to having an impact on self-compassion. Another limitation was the use of a retrospective self-report measure to assess combat exposure. Furthermore, the generalizability of the current findings to other trauma-exposed populations may be limited. For example, given that the majority of our sample endorsed exposure to multiple traumatic events, these results may not generalize to individuals reporting exposure to a single traumatic event. Findings from the present study may also not generalize to individuals who are not seeking treatment or those who have experienced traumatic events that differ from combat exposure. Finally, the lack of consideration of the influence of depression symptoms on the relationship between self-compassion and PTSD may be viewed as a limitation, although the high degree of overlap between PTSD and depression symptoms greatly complicates this issue.

The influence of self-compassion on PTSD symptoms was examined in a sample of combat-exposed Iraq and Afghanistan war veterans. As expected, we found a negative association between self-compassion and PTSD symptom severity at baseline and 12 month follow-up. Moreover, self-compassion was shown to predict 12-month PTSD symptom severity, even after accounting for combat trauma exposure and baseline PTSD symptom severity. These findings suggest that self-compassion may influence the course of PTSD symptoms. Additional research is warranted to examine the efficacy of interventions to increase self-compassion with war veterans with chronic PTSD symptoms. Future research is also warranted to examine the relations among self-compassion and a broader range of outcomes, including depression and other mental health symptoms, as well as problems with functional readjustment in war veterans.

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