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Anger, dissociation, and PTSD among male veterans entering into PTSD treatment

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ABSTRACT

Prior research suggests that dissociation and anger are risk factors for the development of posttraumatic stress disorder (PTSD). Research found that trauma survivors with higher levels of anger also report more severe PTSD overall. Studies also support a relationship between PTSD severity and dissociation. Only one prior study of sexual assault survivors by Feeny, Zoellner, and Foa (2000) examined the relationships among dissociation, anger, and PTSD. While Veterans have been found to report high levels of anger and dissociation, the relationship between these factors and PTSD has not been examined among Veterans. This paper examines the relationship among anger, dissociation, and PTSD in treatment-seeking Veterans who presented for evaluation at the PTSD Clinic in the VA Ann Arbor Healthcare System during a four year period. Anger and dissociation predicted PTSD, hyperarousal, and avoidance/numbing severity while dissociation predicted intrusive severity. The implications of these results for clinical practice are discussed.

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1. Introduction

Posttraumatic stress disorder (PTSD) among military Veterans remains a significant concern with estimated prevalence rates of 15% among Vietnam-era Veterans (Schlenger et al., 1992), 2–10% among the first Persian Gulf War Veterans (Iowa Persian Gulf Study Group, 1997; Kang, Natelson, Mahan, Lee, & Murphy, 2003), and 11–22% among active duty soldiers and Veterans from the Afghanistan and Iraq conflicts (Hoge et al., 2004; Hoge, Auchterlonie, & Milliken, 2006; Seal et al., 2009). These rates coupled with the well-documented, multidimensional impairment associated with this disorder create an immediate need to better understand and treat PTSD in this population (e.g., Kulka et al., 1990; Maguen, Stalnaker, McCaslin, & Litz, 2009; Shea, Vujanovic, Mansfield, Sevin, and Liu, 2010). Given the hallmark symptoms of this disorder (e.g., reexperiencing, emotional numbing, distress in response to triggers, exaggerated startle response, emotional detachment), research has begun to explore emotion processing and regulation difficulties that may be risk factors for the development and maintenance of PTSD. Two hallmark, emotion-related symptoms of PTSD – anger and dissociation – are known risk factors for the development and maintenance of PTSD and significant problems among Veterans with PTSD (e.g., Bremner et al., 1992; Jakupcak et al., 2007).

1.1. Anger and PTSD

Anger is associated with numerous negative consequences, including impulsive aggression (Teten et al., 2010), poorer treatment outcomes (Forbes, Creamer, Hawthorne, Allen, & McHugh, 2003; Forbes et al., 2005; Forbes et al., 2008), substance misuse (Seedat, Stein, & Forde, 2003) and increased aggression (e.g., Taft, Street, Marshall, Dowdall, & Riggs, 2007). Among both Veteran and civilian populations, trauma survivors who report higher levels of anger are more likely to meet criteria for PTSD (e.g., Chemtob, Hamada, Roitblat, & Muraoka, 1994; Taft et al., 2007). In addition, among combat Veterans level of anger differentiated those Veterans with and without PTSD (e.g., Frueh, Henning, Pellegrin, & Chobot, 1997; Jakupcak et al., 2007), even after controlling for level of combat exposure (e.g., Chemtob et al., 1994). Additionally, higher levels of anger are associated with more severe PTSD overall (e.g., Chemtob et al., 1994; Taft et al., 2007), even after PTSD items relating to anger are removed (e.g., Novaco & Chemtob, 2002). In a meta-analysis, Orth and Wieland (2006) found that the strength of the relationship between PTSD and anger was significant overall across trauma types but that it was strongest among military combat Veterans.

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1.2. Dissociation and PTSD

Dissociation is commonly defined as difficulty integrating thoughts, feelings and experiences into consciousness and memory (Bernstein & Putnam, 1986). Peritraumatic and trait dissociation, in particular, have been examined as potential predictors of PTSD with mixed results (McCaslin et al., 2008; for full review of peritraumatic dissociation, see van der Velden & Wittmann, 2008). Increased dissociative symptoms both during and after trauma exposure are related to higher prevalence and increased severity of PTSD in military and civilian participants (e.g., Bremner & Brett, 1997; Dancu, Riggs, Hearst-Ikeda, Shoyer, & Foa, 1996). Additionally, the relationship between dissociation during the event and the later emergence of PTSD has been shown prospectively (Holen, 1993). In fact, a meta-analysis examining potential predictors of PTSD reported that dissociation at the time of the trauma (peritraumatic dissociation) had the largest effect size (weighted $r = .35$) relative to other risk factors, such as prior trauma history, family history of psychopathology, perceived life threat during the trauma, post-trauma social support, and prior psychological adjustment (Ozer, Best, Lipsey, & Weiss, 2003). Among Veterans, higher levels of dissociation both during and following the trauma were found among those with PTSD than without PTSD (Bremner & Brett, 1997; Bremner et al., 1992) and were predictive of PTSD status even after controlling for level of combat exposure (Marmar et al., 1994). The relationships between dissociation and the three specific PTSD symptom clusters (intrusion, avoidance/numbing, and hyperarousal) are less clear. For instance, in a study of female Veterans who served in Vietnam, dissociation significantly predicted intrusive symptoms and avoidance symptoms (Tichenor, Marmar, Weiss, Metzler, & Ronfeldt, 1996). However, increased dissociation was only related to arousal symptoms in a sample of male Australian Vietnam Veterans (Tampke & Irwin, 1999).

1.3. Anger and dissociation

Taken together, the results of the previous studies suggest that anger and dissociation are important factors in the development and maintenance of PTSD. However, to date, only one study of sexual assault survivors has examined the concurrent relationships between dissociation, anger, and PTSD (Feeny, Zoellner, & Foa, 2000). In this study, higher anger was related to more dissociation in female-assault survivors at 12 weeks post-assault, even after controlling for PTSD severity. In addition, higher anger and dissociation were related to worse mental health outcomes (i.e., PTSD and social impairment), and higher anger at four weeks post-assault predicted PTSD at 3 months post-assault while dissociation at four weeks post-assault predicted social impairment at 3 months post-assault. Based on these results, Feeny and colleagues suggested anger and dissociation are complimentary methods of emotional disengagement from the traumatic event that comprise problematic coping styles consistent with emotional avoidance.

While these results are compelling, replication and extension is necessary to understand the relationship between anger, dissociation, and PTSD among combat Veterans. The current study examines the relationships between PTSD, dissociation, and anger in treatment-seeking Veterans who presented for evaluation at the PTSD clinic in the Veterans Affairs Ann Arbor Healthcare System between November 2003 and November 2007.

2. Methods

2.1. Participants

The sample for this study was comprised of 214 male Veterans who were evaluated at entry to the PTSD clinic of the VA Ann Arbor Healthcare System between the years of 2003 and 2007. The clinical evaluation consisted of diagnostic interviews and self-report questionnaires assessing PTSD, anger, dissociation, and related symptoms. Table 1 presents the descriptive statistics for this sample. VA Ann Arbor Healthcare System Human Subject Committee reviewed and approved this study.

Table 1
Overall sample characteristics ($N = 214$).

Demographic variables	Mean (SD) or *n* (%)[a]
Age	46.65 (16.40)
Education	12.96 (1.99)
White ethnicity	184 (86.0%)
Married	115 (54.8%)
War era	
Vietnam War	128 (61.8%)
OEF/OIF	79 (38.2%)
Other mental health diagnoses[b]	
Major depressive disorder	121 (56.5%)
Dysthymia	39 (18.2%)
Alcohol dependence	33 (15.4%)
Alcohol abuse	23 (10.7%)
Drug dependence	2 (0.9%)
Drug abuse	4 (1.9%)
Panic disorder[c]	19 (8.9%)
Bipolar disorder[d]	17 (7.9%)
Social phobia	14 (7%)
Generalized anxiety disorder	14 (6.5%)
Obsessive compulsive disorder	9 (4.2%)
Psychotic disorder	2 (0.9%)
Primary study variables	
STAXI-1 trait anger subscale	23.83 (6.97)
Dissociation Experience Scale	20.05 (15.13)
Clinician Administered PTSD Scale Total	67.80 (21.32)

Note. OEF/OIF = operation enduring freedom/operation Iraqi freedom. PTSD was measured utilizing the clinician administered PTSD scale. Other mental health disorders were assessed by the MINI.

[a] Percentages reported represent valid percents with missing data removed.

[b] All diagnoses are current with the exception of psychotic disorder, which represents a life time diagnosis.

[c] Panic disorder diagnoses includes those with and without agoraphobia.

[d] Bipolar disorder includes both bipolars I and II.

2.2. Measures

2.2.1. Mini International Neuropsychiatric Interview (MINI)

The MINI (Sheehan et al., 1998) is a relatively brief diagnostic interview that assesses for Axis I disorders and was used during the evaluations to assess for comorbid conditions. Reports comparing the MINI with the Structured Clinical Interview for DSM-III-R (SCID), and the Composite International Diagnostic Interview (CIDI), demonstrate that it has strong psychometric properties (e.g., Lecrubier et al., 1997; Sheehan et al., 1998). Updated versions of the instrument have been developed to address changes in diagnostic features. The version used for this study was based on the criteria for the DSM-IV-TR.

2.2.2. The State-Trait Anger Expression Inventory-2 (STAXI-2) and Trait Anger Subscale (T-Ang)

The STAXI-2 (Spielberger, 1999) is a widely-used measure of anger. The T-Ang is the 10-item subscale measuring enduring trait-anger symptoms with reported alpha levels between .84 and .87.

2.2.3. Dissociative Experience Scale (DES)

The DES (Bernstein & Putnam, 1986) is a 28-item, self-report questionnaire asking respondents to rate the percentage of time (0–100%) they experience a variety of dissociative experiences. The DES has strong test-retest reliability reported between $r = 0.79$ (Bernstein & Putnam, 1986) and $r = 0.96$ (Frischholz et al., 1990)