Original Article

Dispositional Anger and Experiential Avoidance in Veterans with PTSD

M Toohey, A Santanello, O Van Orden, M Soll, S Batten

Abstract

Background: Anger is often indirectly addressed in posttraumatic stress disorder (PTSD) treatment despite reports that traumafocussed therapy may not be sufficient in improving anger responses[1]. Thus, it is possible that anger in the context of PTSD might be related to additional factors such as personality traits and coping styles.

Purpose: We sought to identify additional elements influencing anger. We hypothesised that trait anger (a personality trait) and experiential avoidance (a coping style) would account for significant variance in state anger when controlling for PTSD symptom severity in a sample of treatment-seeking veterans with a history of PTSD.

Material and Methods: One-hundred and one veterans completed pencil-and-paper surveys including the Posttraumatic Stress Disorder Checklist, Acceptance and Action Questionnaire-II, and State-Trait Anger Expression Inventory-2, and a subsample of 79 veterans meeting screening criteria for PTSD were included in these analyses.

Results: Experiential avoidance, PTSD symptom severity, and trait anger had significant zero-order correlations with state anger while only PTSD symptom severity and trait anger had a significant partial effect in the full model ($p < 0.01$). Stepwise multiple regression produced a three-predictor model accounting for 27% of the variance in state anger, explained partially by PTSD symptom severity and trait anger ($F(3, 75) = 12.86$, $p < 0.001$).

Conclusion: Implications include addressing anger directly in treatment and not as a symptom that will be indirectly reduced through the treatment of PTSD.

Key Words/Phrases: *State Anger, Trait Anger, PTSD, Experiential Avoidance, Veterans*

Conflicts of interest: none declared.

Anger is among the most common symptoms reported by veterans who have been diagnosed with PTSD[2]. Veterans diagnosed with PTSD who served in Vietnam[3-4] and who served in Operations Iraqi and Enduring Freedom[5-6] tend to report a significantly higher degree of anger than veterans not diagnosed with PTSD. Congruently, partners of veterans diagnosed with PTSD often report observing higher levels of anger in their spouses when compared to partners of combat veterans without PTSD diagnoses[7].

Anger is associated with the development and maintenance of PTSD. The presence of anger at initial assessment has been found to predict symptoms of PTSD four weeks post-assault in survivors of sexual and nonsexual assault[8] as well as chronic PTSD fourteen years post-assault in a sample of Vietnam veterans[9]. Anger can interfere with motivation to engage in treatment[1] and is also associated with attenuated effectiveness of treatment in both combat[10] and non-combat[11] veterans presenting with symptoms of PTSD. Among veterans and civilians diagnosed with PTSD, anger is associated with a variety of family, vocational, medical, and functional impairments[2,3,12-15]. Despite the prevalence and salient consequences of PTSD-related anger, the lack of literature on the topic makes it difficult to conceptualise and treat effectively[1]. As a result, available interventions for PTSD-related anger are limited in their effectiveness[16].

Spielberger differentiated between two types of anger: *trait anger* and *state anger*[17]. While state anger is conceptualised as the episodic and momentary experience of angry affect, trait anger is defined as the general, dispositional tendency to experience

anger. State and trait anger have been shown to have a strong, direct relationship with each other in police officers diagnosed with PTSD[18] and in male college students who report exposure to a traumatic event[19]. Iraq and Afghanistan war veterans who screened positive for PTSD symptoms were observed to have significantly higher trait anger than veterans who did not screen positive for PTSD symptoms[5]. In addition, trait anger appears to have a significant relationship with emotional numbing, hyperarousal, and aggressive behaviour in veterans of the recent conflicts in Iraq and Afganistan[20].

Previous research suggests that experiential avoidance may also play an important role in the development and maintenance of a variety of psychological disorders including PTSD[21-23]. Experiential avoidance is defined as a general coping style in which individuals engage in strategies intended to alter the frequency or experience of private events such as thoughts, feelings, memories or bodily sensations or the contexts that occasion them[22]. Studies have shown that experiential avoidance predicts PTSD in veterans[24-25].

Experiential avoidance, that is avoidance of both trauma and non-trauma related internal experiences such as unwanted thoughts and feelings, might also contribute to maladaptive behavioural patterns related to anger[26-27]. For example, individuals might try to avoid feeling angry in the moment when it seems too intense, lasts too long, or occurs too frequently. Gardner and Moore proposed an "anger avoidance model" which suggests that strong motivation to avoid or terminate the experience of anger may play a central role in anger dysregulation[27]. Specifically, it is proposed that an early-life history of abuse and neglect may contribute to the development of cognitive biases toward threat and an exaggerated sense of vulnerability that fuesl chronic feelings of anger. Anger is experienced as intolerable, and difficulties in processing angry affect contribute to overgeneralised internal (e.g., cognitive rumination) and external (e.g., aggressive behaviour) coping strategies that function to decrease or prevent the experience of anger in the short term. Paradoxically, these strategies may simultaneously maintain and even create situations that are likely to occasion feelings of anger and vulnerability in the future. Similarly, Eifert and Forsyth proposed that anger-related behaviours aimed at reducing emotional discomfort (i.e., experiential avoidance), such as the experience of anger, are often ineffective in the long-term and are likely to interfere with life satisfaction and functioning in various domains of living[26]. Treatment specifically targeting experiential avoidance has been shown to be a promising approach to reduce the impact of anger on functional impairment[28].

The relationship between anger and avoidance coping may also have significant implications for individuals who have been diagnosed with PTSD. Anger in the context of PTSD may serve as an "active" form of avoidance which may afford the trauma survivor a feeling of agency that distracts them from feeling helpless or vulnerable[29]. This may interfere with the processing of more "vulnerable" emotions such as fear, which is often a key in successful recovery from traumatic experiences[8,30]. Many trauma survivors may begin to fear the experience of anger and the consequences of angry behaviour. Fear of (and perhaps subsequent avoidance of) anger and angry reactions that may be occasioned by trauma-focussed therapy have been shown to partially account for suboptimal responses to treatment[31]. Unfortunately, few studies have examined the possible relationships between anger and avoidance coping directly, and these relationships are not well understood. Additional research in this area is needed as it may help to improve clinicians' ability to treat individuals presenting for PTSD treatment with high levels of anger[32].

In the current study, the authors sought to investigate the impact of experiential avoidance (a coping style), trait anger (a personality trait), and PTSD symptom severity on state anger in veterans with PTSD. The study included the following hypotheses: a) PTSD symptoms would predict state anger, b) experiential avoidance would predict state anger, c) trait anger would predict state anger, d) experiential avoidance would predict state anger independent of trait anger, and e) trait anger would predict state anger independent of experiential avoidance and PTSD symptom severity.

Method

Participants

Participants were drawn from a sample of 101 veterans receiving outpatient or residential treatment for PTSD at the Baltimore Veterans Affairs Medical Center (VAMC). Specific details regarding treatment setting (e.g., outpatient, residential) were not collected. Recruitment efforts were mostly directed toward veterans participating in outpatient group therapy with some participation by veterans receiving residential treatment. Therefore, at the time of their participation we estimate that approximately two-thirds of the sample was receiving outpatient treatment, and one-third was receiving residential treatment. All veterans seeking treatment for PTSD at

Original Article

the Baltimore VAMC met full criteria for the disorder during a semi-structured intake prior to receiving a referral to the Trauma Recovery Program; the diagnosis of PTSD could have been given related to either a military or civilian trauma. No formal data were recorded for individual participants about the process of PTSD diagnosis, co-occurring psychiatric disorders, or substance use problems. However, the majority of the initial sample reported service in a war zone (75.2%) and exposure to potentially traumatisng events such as receiving either friendly or hostile fire (76.2%), and a minority reported witnessing or participating in atrocities (48.5%), experiencing military sexual assault (16.8%), and being threatened with sexual assault in the military (10.9%). Only those participants completing the survey whose responses on the PTSD Checklist indicated that their past-month symptoms were suggestive of PTSD, based on the cutoff score of 50, as recommended by Weathers et al. [33], were included in the analyses for this study. Using this criterion, the study sample was predominantly male (n = 73) with six female participants. The average age of participants was 52.1 years (SD = 9.99), with a range from 25 to 74 years. The sample was 50.6% African American, 39.2% Caucasian, 2.5% Latino, and 1% Native American, with 6.4% from other, unspecified racial/ethnic groups. The majority of the sub-sample reported service in a war zone (70.9%) and exposure to potentially traumatising events such as receiving either friendly or hostile fire (70.9%), and again a minority reported witnessing or participating in atrocities (30.4%), experiencing military sexual assault (20.3%), and being threatened with sexual assault in the military (12.7%). Table 1 shows additional demographic and military service characteristics of the study sample. .

Table 1.

Demographic Characteristics of Sample of Veterans with PTSD (N = 79)

Characteristic	
Age in Years M (*SD*)	52.07 (9.96)
Sex	n (%)
Male	73 (92.4)
Female	6 (7.6)
Ethnicity	
African American/Black	40 (50.6)
American Indian	1 (1.3)
Caucasian/White	31 (39.2)
Hispanic/Latino	2 (2.5)
Other	4 (5.1)
No response	1 (1.3)
Education	
Some High School	2 (2.5)
High School or GED	23 (29.1)
Some College	33 (41.8)
2-Year College Degree	13 (16.5)
4-Year College Degree	5 (6.3)
Some Graduate School	1 (1.3)
Graduate Degree	2 (2.5)
Period of military service	
WW-II	1 (1.3)
Korean War	2 (2.5)
Vietnam War	44 (55.7)
Between Vietnam and Persian Gulf Wars	14 (17.7)
Persian Gulf War to present	18 (22.8)
Employment status	
Employed part-time	7 (8.9)
Employed full-time	1 (1.3)
Retired	16 (20.3)
Certified 100% disabled	18 (22.8)
Unemployed, not disabled	34 (43.0)
Student	2 (2.5)
Volunteer	1 (1.3)

Original Article

Measures

Posttraumatic Stress Disorder Checklist[33]. The PTSD Checklist (PCL) is a 17-item, self-report measure of the frequency of posttraumatic stress symptoms (DSM-IV TR) in the past month. The PCL appears to have adequate sensitivity to the presence of PTSD symptoms in veterans[34]. Cronbach's Alpha coefficient for the current sample was 0.798.

Acceptance and Action Questionnaire-II[35]. The Acceptance and Action Questionnaire-II (AAQ-II) is a ten-item, self-report measure of experiential avoidance. The measure includes a list of ten statements (e.g., "It's OK if I remember something unpleasant") rated on a 7-point scale from *Never True* to *Always True*. Lower total scores reflect greater experiential avoidance, and higher scores indicate greater psychological flexibility. The AAQ-II appears to have good internal consistency (average Cronbach's Alpha coefficient of 0.83) and validity in preliminary validation research[35]. Cronbach's Alpha coefficient for the current sample was 0.622.

State-Trait Anger Expression Inventory-2[17]. The State-Trait Anger Expression Inventory (STAXI-2; Spielberger,[17]) consists of 57 items representing dispositional and momentary anger rated from 1 (*Not at all*) to 6 (*Very much so*). The STAXI-2 internal reliability estimates range from 0 .73 to 0 .95 for the total scale and from 0.73 to 0.93 for the subscales. Spielberger[17] also reported construct-related validity for the scales and subscales. Concurrent validity of the original STAXI was demonstrated by comparing it to several scales, including the Minnesota Multiphasic Personality Inventory (Hostility and Overt Hostility scales), Buss-Durkee Hostility Inventory, and the Eysenck Personality Questionnaire (Psychoticism and Neuroticism). Chronbach's Alpha coefficient for the total scale in the current sample was 0.906.

Procedure

The study was approved by the medical cenrer's designated Institutional Review Board to recruit participants from the population of veterans who were seeking treatment in the Trauma Recovery Program of the Baltimore VAMC. Veterans receiving outpatient or residential treatment for PTSD were approached by members of the research team and asked to participate in this study. Study personnel explained the general rationale for the study, described the procedures, and obtained informed consent. After completing the consent process, participants were provided with a demographic questionnaire, the AAQ-II, PCL, STAXI-2, and several other paper-and-pencil measures not included in the present analyses. Participants completed all study measures at the time of consent in the presence of a member of the research staff.

Data Analyses & Results

Multiple linear regression analysis was used to examine a model predicting state anger (STAXI-2: State) from past-month PTSD symptom severity (PCL), experiential avoidance (AAQ-II; with higher scores reflecting lower experiential avoidance), and trait anger (STAXI-2:Trait). Table 2 shows descriptive statistics as well as full-model and semi-partial regression coefficients for each variable in the model; raw scores were transformed into z-scores for ease of interpretation of coefficients.

Table 2.

State Anger as Related to PTSD Symptom Severity, Experiential Avoidance, and Trait Anger (N = 79)

Variable	Zero-Order *r*				β	sr^2	CI .95 for β
	PCL	AAQ-II	STAXI-2 Trait	STAXI-2 State			
PCL	--	-.485**	.282*	.370**	.235*	.198	.001, .477
AAQ-II		--	-.120	-.222*	-.064	-.056	-.295, .165
STAXI-2 Trait			--	.444**	.370**	.355	.170, .596
Mean	69.9	25.86	28.3	27.14			
SD	8.27	9.1	6.83	13.12			

*p < .05, **p < .01

Table 3.

Hierarchical Regression Predicting State Anger (N = 79)

Predictor	β	R^2	Change in R^2	CI .95 for β
Step 1. PCL	.370**	.137**		.162, .592
Step 2. PCL	.343**			
AAQ-II	.055	.139	.002	-.304, .191
Step 3. PCL	.235*			
AAQ-II	-.064			
STAXI-2 Trait	.370**	.265**	.126**	.170, .596

*p < .05, **p < .01

Each of the variables had a significant zero-order correlation with state anger, and both PTSD symptoms severity ($p < 0.05$) and trait anger ($p < 0.01$) had significant partial effects in the full model. Holding the other variables constant, for every one-standard deviation increase in PTSD severity, there was a 0.20-point increase in state anger and for every one-standard deviation increase in trait anger, there was a 0.36-point increase in state anger.

Next, hierarchical regression analysis was employed to predict state anger, with each variable listed in Table 3 entered in a sequential step.

PTSD symptom severity significantly predicted state anger ($p < 0.01$). The addition of experiential avoidance in step two did not improve the model. The addition of trait anger in step three demonstrated a significant effect in predicting state anger ($p < 0.01$), and the three-predictor model accounted for 27% of the variance in state anger, explained largely by trait anger, $F(3, 75) = 12.86$, $p < 0.001$.

Discussion

The purpose of the current study was to explore the impact of experiential avoidance (a coping style), trait anger (a personality trait), and PTSD symptom severity on state anger in veterans with PTSD. Experiential avoidance, PTSD symptom severity, and trait anger had significant zero-order correlations with state anger. As hypothesised, trait anger was observed to predict state anger independent of experiential avoidance and PTSD symptom severity. Although PTSD symptom severity was also a significant predictor of state anger in the final model, it is noteworthy that the trait anger was the strongest predictor. The relationship between state and trait anger observed in this study is consistent with previous findings demonstrating the strong relationship between these constructs[18-19]. Anger is a common residual symptom even when other symptoms of PTSD are treated effectively and appears to be more closely related to symptoms of "dysphoric arousal" rather than "anxious arousal" symptoms that are most directly targeted by trauma focused treatment[36-37]. The unique relationship between trait anger and state anger, independent of PTSD symptom severity, observed in this study lends support to recent recommendations suggesting that anger-focussed assessment and treatment be included for veterans and service members presenting with co-morbid PTSD and anger dysregulation[38].

Consistent with the fear avoidance models proposed by Foa et al.[30] and Kulkarni et al.[29], we hypothesised that experiential avoidance would predict state anger independently of PTSD symptom severity and trait anger. Although experiential avoidance was not found to predict anger independently, a significant, zero-order correlation between experiential avoidance and state anger was observed. This suggests that avoidance-based coping may have a subtle relationship with anger in the context of PTSD that could not be adequately measured due to the limitations of this study outlined below. Another explanation for these results could be related to the constructs of state anger and experiential avoidance as measured by the STAXI-2 and AAQ-II, respectively. Experiential avoidance has been conceptualised as the tendency to cope with unwanted private events by avoiding or altering their form, frequency, or intensity or the contexts that occasion them[22]. State anger is conceptualised as the episodic experience of angry affect[17], and may be a slightly different construct than anger as a form of active avoidance such as proposed by the fear avoidance model. State anger may be better conceptualised as the *topography* of the emotional state to which it refers, whereas "anger-as-avoidance" may be a new concept, reflecting the *function* of this affective state in the context of PTSD symptoms. There may be a need to develop a specific measure of "anger-as-avoidance" that more directly reflects this construct.

There are several limitations to the current study. First, given the small sample size, there may have been limited power to detect influences of experiential avoidance on state anger. Another possible limitation is the potential range restriction in anger scores due to the composition of the current sample. Because all of the study participants were participants in a PTSD treatment program, and because anger is a frequent component of the presentation of PTSD, it is possible that the relatively higher levels of anger and concomitant PTSD symptoms introduced some issues with multi-collinearity. However, the current study was designed specifically to look at the relationship of PTSD and anger within a PTSD treatment-seeking sample. Future studies will be needed to determine whether these relationships apply in samples with a wider range of anger levels and posttraumatic symptom scores that do not all rise to the level of requiring mental health treatment. Third, all observations occurred at one assessment point, precluding the use of more sophisticated statistical analyses and inferences regarding the relationships between factors over the course of time. This cross-sectional design provides only retrospective information on psychological factors that may influence momentary anger. Use of a longitudinal design (e.g., collection of study measures prior to initiating treatment for PTSD and following participation in a course of therapy) would afford the opportunity to investigate more complex hypotheses. However, we believe that a causal relationship between variables can be inferred due to the differences in the temporal nature of each measure (comparing a disposition, coping style, and disorder to a momentary construct). Fourth, methods used to determine inclusion in the current study sample, particularly those used to establish the presence of PTSD, were suboptimal given that all veterans included in this sample were judged to meet DSM-IV criteria for PTSD based on an unstructured intake interview. Thus, only participants reporting significant symptoms of PTSD (PCL scores of 50 or higher) were included in the study sample. Utilisation of a structured, diagnostic interview such as the Clinician Administered PTSD Scale would have been a more reliable and accurate method of determining inclusion in the study sample.

Despite the limitations of the current study, trait anger and experiential avoidance might be useful factors to consider in future research with veterans presenting with symptoms of PTSD. The findings of this cross-sectional study are consistent with emotion-processing and cognitive theories of PTSD and might also suggest the importance of addressing a broader range of avoidance tendencies (emotional, experiential) that may uniquely influence the persistence of anger-related problems in veterans with PTSD. In treatment outcome research and prospective studies, inclusion of measures that examine these often excluded constructs of these variables would further elucidate the relationship between problematic anger and PTSD and may suggest novel approaches for intervention.

Corresponding author: Michael Toohey
mike.j.toohey@gmail.com
Authors: M Toohey[1], A Santanello[2], O Van Orden[2], M Soll[3], S Batten[4]
Author Affiliations:
1 Eastern Washington University
2 VA Maryland Health Care System
3 Portland, Oregon
4 Booz Allen Hamilton, McLean, Virginia

References

1. Novaco R, Chemtob C. Anger and combat-related posttraumatic stress disorder. J Trauma Stress 2002; 15: 123-132.

2. Murphy RT, Cameron RP, Sharp L, et al. Readiness to change PTSD symptoms and other problems among veterans participating in a motivation enhancement group. Behav Ther 2004; 27: 33-35.

3. Kubany ES, Gino A, Denny NR, et al. Relationship of cynical hostility and PTSD among Vietnam veterans. J Trauma Stress 1994; 7: 21-31.

4. Taft CT, Vogt DS, Marshall AD, et al. Aggression among combat veterans: Relationships with combat exposure and symptoms of posttraumatic stress disorder, dysphoria, and anxiety. J Trauma Stress 2007; 20: 135-145.

5. Elbogen EB, Wagner HR, Fuller SR, et al. Correlates of anger and hostility in Iraq and Afghanistan war veterans. Am J Psychiatry 2010; 167: 1051-1058.

6. Jakupcak M, Conybeare D, Phelps L, et al. Anger, hostility, and aggression among Iraq and Afghanistan War veterans' reported PTSD and subthreshold PTSD. J Trauma Stress 2007; 20: 945-954.

7. Calhoun PS, Beckham JC, Feldman ME, et al. Partners' ratings of combat veterans' anger. J Trauma Stress 2002; 15: 133-136.

8. Feeny NC, Zoellner LA, Foa EB. Anger, dissociation, and posttraumatic stress disorder among female assault victims. J Trauma Stress 2000; 13: 89-100.

9. Koenen KC, Stellman JM, Sommer SD, et al. Risk factors for course of posttraumatic stress disorder among Vietnam veterans: A 14-year follow- up of American Legionnaires. J Consult Clin Psychol 2003; 71: 980-986.

10. Forbes D, Creamer M, Hawthorne G, et al. Comorbidity as a predictor of symptoms change after treatment in combat-related posttraumatic stress disorder. J Nerv Ment Dis 2003; 191: 93-99.

11. Forbes D, Bennett N, Biddle D, et al. Clinical presentations and treatment outcomes of peacekeeper veterans with PTSD: Preliminary findings. Am J Psychiatry 2005; 162: 2188-2190.

12. Evans L, McHugh T, Hopwood M, et al. Chronic posttraumatic stress disorder and family functioning of Vietnam veterans and their partners. Aust N Z J Psychiatry 2003; 37: 765-772.

13. Galovski T, Lyons JA. Psychological sequelae of combat violence: A review of the impact of PTSD on the veteran's family and possible interventions. Aggress Violent Behav 2003; 9: 477-501.

14. Orth U, Wieland E. Anger, hostility, and Posttraumatic Stress Disorder in trauma-exposed adults: A meta-analysis. J Consult Clin Psychol 2006; 74: 698-706.

15. Ouimette P, Cronkite R, Prins A, et al. Posttraumatic stress disorder, anger and hostility, and physical health status. J Nerv Ment Dis 2004; 192: 563-566.

16. Novaco RW, Chemtob CM. Anger and trauma: Conceptualization, assessment, and treatment. In: Follette VM, Ruzek, JI, Abueg, F, editors. Cognitive-behavioral therapies for trauma. New York: Guilford. 1998. p. 162-190.

17. Spielberger CD. Manual for the state-trait anger expression inventory-2. Odessa (FL): Psychological Assessment Resources; 1999.

18. Meffert SM, Metzler TJ, Henn-Haase C, et al. A Prospective Study of Trait Anger and PTSD Symptoms in Police. J Trauma Stress. 2008; 21(4): 410-416.

19. Jakupcak M, Tull MT. Effects of trauma exposure on anger, aggression, and violence in a nonclinical sample of men. Violence Vict 2005; 20: 589-598.

20. Stappenbeck CA, Hellmuth JC, Simpson T, et al. The effects of alcohol problems, PTSD, and combat exposure on nonphysical and physical aggression among Iraq and Afganistan war Veterans. Psychol Trauma 2014; 6: 65-72.

21. Batten SV, Orsillo SM, Walser RD. Acceptance and mindfulness-based approaches to the treatment of posttraumatic stress disorder. In: Orsillo, SM Roemer L, editors. Acceptance and mindfulness-based approaches to anxiety: Conceptualization and treatment. New York: Plenum. 2005. p. 241-269.

22. Hayes SC, Wilson KG, Gifford EV, et al. Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. J Consult Clin Psychol.1996; 64: 1152-1168.

23. Tull MT, Jakupcak M, Paulson A, et al. The role of emotional inexpressivity and experiential avoidance in the relationship between posttraumatic stress disorder symptom severity and aggressive behavior among men exposed to interpersonal violence. Anxiety Stress Coping 2007; 20: 337-351.

24. Maack DJ, Tull MT, Gratz KL. Experiential avoidance mediates the association mediates the association between behavioral inhibition and posttraumatic stress disorder. Cog Ther Res 2012; 36: 407-416.

25. Meyer EC, Morissette SB, Kimbrel NA, et al. Acceptance and action questionnaire—II scores as a predictor of posttraumatic stress disorder symptoms among war veterans. Psychol Trauma 2013; 5 (6): 521.

26. Eifert GH, Forsyth JP. The application of acceptance and commitment therapy to problem anger. Cog Behav Pract 2011; 18: 241-250.

27. Gardner FL, Moore, ZE. Understanding clinical anger and violence: The anger avoidance model. Behav Modif 2008; 32: 897-912.

28. Saavedra K. Toward a new Acceptance and Commitment Therapy (ACT) treatment of problematic anger for low income minorities in substance abuse recovery: A randomized controlled experiment [dissertation]. Berkeley (CA): The Wright Institute; 2008.

29. Kulkarni M, Porter KE, Rauch SA. Anger, dissociation, and PTSD among maleveterans entering PTSD treatment. J Anxiety Disord 2012; 26: 271-278.

30. Foa EB, Riggs DS, Massie ED, et al.. The impact of fear activation andanger on the efficacy of exposure

treatment for posttraumatic stress disorder.Behav Ther 1995; 26: 487-499.

31. Forbes D, Parslow R, Creamer M. et al.. Mechanisms of anger and treatment outcome in combat veterans with posttraumatic stress disorder. J Trauma Stress 2008; 21: 142-149.

32. Clifton EG,Feeney NC, Zoellner LA. Anger and guilt in treatment for chronic posttraumatic stress disorder. J Behav Ther Exp Psychiatry 2017; 54: 9-16.

33. Weathers FW, Litz BT, Herman DS, et al. The PTSD checklist (PCL): Reliability, validity, and diagnostic utility. Proceedings of the 9th Annual Conference of the International Society for Traumatic Stress Studies; 1993 Oct; San Antonio, TX.

34. Forbes D, Creamer M, Biddle D. The validity of the PTSD checklist as a measure of symptomatic change in combat-related PTSD. Behav Res Ther 2001; 39: 977-986.

35. Bond FW, Hayes SC, Baer RA, et al. Preliminary psychometric properties of the Acceptance and Action Questionnaire – II: A revised measure of psychological inflexibility and experiential avoidance. Behav Ther 2011; 42(4): 676-688.

36. Zayfert C, Deviva JC. Residual insomnia following successful cognitive behavioral therapy for PTSD. J Trauma Stress 2004; 17: 69-73.

37. Durham TA, Byllesby BM, Armour C, et al. Relations between anger and other DSM-5 posttraumatic stress disorder symptoms. Psychiatry Reseach *in press.*.

38. Morland LA, Love AR, Green C. et al.. Treating anger and aggression in military populations: Research updates and clinical implications. Clin Psychol: Sci Pract 2012; 19: 305-322.