Psychiatry Research 189 (2011) 251–258

Contents lists available at ScienceDirect

Psychiatry Research

journal homepage: www.elsevier.com/locate/psychres

Cognitive-behavioral coping strategies associated with combat-related PTSD in treatment-seeking OEF–OIF Veterans

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ARTICLE INFO

Article history:
Received 1 February 2011
Received in revised form 17 June 2011
Accepted 7 July 2011

Keywords:
Veterans
Combat
Posttraumatic stress disorder
Thought control
Coping
Avoidance

ABSTRACT

Posttraumatic stress disorder (PTSD) is associated with intrusive trauma-related thoughts and avoidance behaviors that contribute to its severity and chronicity. This study examined thought control and avoidance coping strategies associated with both a probable diagnosis and symptom severity of combat-related PTSD in a sample of 167 treatment-seeking Operations Enduring Freedom and Iraqi Freedom (OEF–OIF) Veterans. Within one year of returning from deployment, Veterans completed a survey containing measures of combat exposure, coping strategies, psychopathology, and postdeployment social support. Veterans with a positive screen for PTSD scored higher than Veterans without a positive screen for PTSD on measures of worry, self-punishment, social control, behavioral distraction, and avoidance coping strategies. Worry and social avoidance coping were positively related to PTSD symptoms, and greater perceptions of understanding from others were negatively related to these symptoms. A structural equation model revealed that scores on a measure of postdeployment social support were negatively associated with scores on measures of maladaptive cognitive coping (i.e., worry, self-punishment) and avoidance coping (social and non-social avoidance coping) strategies, which were positively associated with combat-related PTSD symptoms. These results suggest that maladaptive thought control and avoidance coping may partially mediate the relation between postdeployment social support and combat-related PTSD symptoms in treatment-seeking OEF–OIF Veterans. Consistent with cognitive therapy models, these findings suggest that interventions that target maladaptive coping strategies such as worry, self-punishment, and social avoidance, and that bolster social support, most notably understanding from others, may help reduce combat-related PTSD symptoms in this population.

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1. Introduction

Posttraumatic stress disorder (PTSD) is one of the most prevalent psychiatric disorders in Veterans of Operations Enduring Freedom and Iraqi Freedom (OEF–OIF), with approximately 1 in 6 Veterans meeting screening criteria for this condition (Tanielian and Jaycox, 2008; Thomas et al., 2010). PTSD is associated with intrusive, trauma-related thoughts (Litz and Keane, 1989; Resick and Schnicke, 1992) and avoidance behaviors (Marx and Sloan, 2005; Morina, 2007; Solomon and Mikulincer, 2007), which contribute to the severity and chronicity of this disorder.

Cognitive theories of posttraumatic stress disorder (PTSD) have highlighted the importance of identifying dysfunctional cognitions that contribute to the persistence of this disorder (Litz and Keane, 1989; Resick and Schnicke, 1992). Repeated avoidance of intrusive thoughts and feelings may prevent habituation to and extinction of fear-related stimuli, and impede modification of threat-based beliefs (Litz and Keane, 1989). Adjustment to trauma is challenging, as thoughts, physiological arousal mechanisms, and attentional processes are oriented to planning for future threats (Wells, 2000). Accordingly, cognitive coping processes are often characterized by excessive worry and self-punishment (Warda and Bryant, 1998; Reynolds and Wells, 1999; Koss et al., 2002). For example, the belief that worrying about a threat will enhance one's ability to avoid harm may cause hypersensitivity to potential threats, which is associated with increased severity of PTSD symptoms (Litz and Keane, 1989; Resick and Schnicke, 1992), and may contribute to the maintenance of this disorder (Schell et al., 2004; Marshall et al., 2006; Solomon et al., 2009). Management of these thoughts requires flexibility in cognitive coping strategies (e.g., reappraisal, solicitation of social resources), which is a major focus of cognitive-behavioral interventions for PTSD (Monson et al., 2006; Rizvi et al., 2009; Sobel et al., 2009; Chard et al., 2010).

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0165-1781/$ – see front matter. Published by Elsevier Ireland Ltd.
doi:10.1016/j.psychres.2011.07.019

Wells and Davies (1994) identified six common thought control strategies that individuals may use to manage unpleasant thoughts that arise in response to negative life events. These include strategies such as worry (e.g., dwelling on the negative thought), self-punishment (e.g., feeling angry at oneself for thinking about a negative event), reappraisal (e.g., assessing the meaning of the thought), cognitive distraction (e.g., redirecting attention to another thought), behavioral distraction (e.g., engaging in another behavior), and social control (e.g., disclosing the thought to someone).

Thought control strategies have been examined in individuals with PTSD (Roussis and Wells, 2008; Bennett et al., 2009; Scarpa et al., 2009), as well as acute stress disorder (Warda and Bryant, 1998; Guthrie and Bryant, 2000), generalized anxiety disorder (Barahmand, 2009), major depression (Reynolds and Wells, 1999; Barahmand, 2009), obsessive–compulsive disorder (Amir et al., 1997; Rassin and Diepstraten, 2003; Barahmand, 2009; Belloch et al., 2009), schizophrenia (Morrison and Wells, 2000), and borderline personality disorder (Rosenthal et al., 2006). Results of these studies suggest that worry and self-punishment strategies are commonly employed in all of these clinical groups. They further suggest that these strategies may mediate the association between PTSD symptoms and dysfunctional cognitions, thereby contributing to the persistence of these symptoms (Bennett et al., 2009).

Avoidance coping responses have been conceptualized as cognitive or behavioral in nature, and consisting of approach or avoidance responses (Moos and Schaefer, 1993). Cognitive avoidance coping consists of denying, minimizing, or trying not to think about a stressful situation and its consequences. Behavioral avoidance coping consists of social withdrawal, escape, and avoidance of stressful activities. A large body of research has found that avoidance symptoms are associated with increased severity and chronicity of PTSD (Benotsch et al., 2000; Orcutt et al., 2004; Marx and Sloan, 2005; Morina, 2007; Solomon and Mikulincer, 2007; Solomon et al., 2009), as well as increased psychosocial difficulties and decreased social support (Pietrzak et al., 2010b). For example, studies of Gulf War Veterans (Benotsch et al., 2000) and treatment-seeking Veterans (Tiet et al., 2006) have found that greater avoidance symptoms at an initial evaluation predicted increased severity of PTSD symptoms 10–13 months later. While it is known that avoidance may contribute to the chronicity of PTSD and related difficulties, little research has examined specific avoidance strategies that may be related to this disorder. For example, avoidance strategies may be cognitive social (e.g., failing to discuss or address tension that builds in a friendship); cognitive nonsocial (e.g., failing to sit down and think about one's future); behavioral social (e.g., making up excuses to get out of social activities); or behavioral nonsocial (e.g., sitting at home and watching TV instead of going out and doing things) in nature. Characterization of specific avoidance strategies associated with combat-related PTSD in treatment-seeking OEF–OIF Veterans will provide a more detailed understanding of maladaptive thoughts and behaviors associated with PTSD in this population, which may help identify potential targets for psychotherapeutic intervention.

Meta-analyses of risk factors for posttraumatic stress disorder (PTSD) have suggested that low social support following a traumatic event is one of the strongest predictors of PTSD (Brewin et al., 2000; Ozer et al., 2003). For example, a study of a national sample of 1632 Vietnam Veterans found that greater perceived postwar functional social support and hardiness were the most important mediators of risk for PTSD compared to other variables such as war zone stressors, stressful life events, and structural social support (King et al., 1998). Greater levels of perceived social support have also been associated with reduced risk for PTSD in other trauma-exposed populations (Engdahl et al., 1997; Kaspersen et al., 2003; Ahern et al., 2004). Studies of OEF–OIF Veterans have found that greater postdeployment social support is negatively associated with PTSD and depressive symptoms, as well as suicidal ideation and psychosocial difficulties (Pietrzak et al., 2009, 2010a,c). In contrast, low levels of social support have been found to be associated with increased avoidant thoughts and behaviors, which may increase risk for PTSD in trauma survivors (Solomon et al., 1988; Benotsch et al., 2000; North et al., 2001; Silver et al., 2002). A possible mechanism by which social support may be protective is that individuals with greater levels of support may be less likely to engage in avoidance coping (i.e., worry, behavioral withdrawal, emotional disengagement), which may reduce the likelihood of developing PTSD (Irwin, 1996; Runtz and Schallow, 1997; Charuvastra and Cloitre, 2008). However, few studies have examined specific avoidance coping strategies (e.g., worry, self-punishment, cognitive and behavioral avoidance) that may mediate the relation between social support and PTSD symptoms, and no study of which we are aware has examined them in treatment-seeking OEF–OIF Veterans.

The purpose of the present study was to provide a detailed examination of thought control and avoidance coping strategies associated with both a probable diagnosis and symptom severity of combat-related PTSD in a sample of treatment-seeking OEF–OIF Veterans. Based on previous research (Irwin, 1996; Runtz and Schallow, 1997; Marx and Sloan, 2005; Morina, 2007; Solomon and Mikulincer, 2007; Charuvastra and Cloitre, 2008; Bennett et al., 2009; Scarpa et al., 2009), we hypothesized that thought control strategies of worry and punishment, and greater use of avoidant coping strategies, particularly social avoidance strategies, would be associated with both a probable diagnosis and increased severity of PTSD symptoms, even after adjustment for combat exposure, comorbid depression and alcohol use problems, and level of postdeployment social support. We further expected that greater perceptions of emotional support (e.g., understanding from others) would be negatively related to these outcomes. Finally, we hypothesized that maladaptive thought control strategies (e.g., worry, self-punishment) and avoidance coping strategies (e.g., social and nonsocial cognitive and behavioral avoidance) would mediate the relation between postdeployment social support and combat-related PTSD symptoms.

2. Methods

2.1. Participants

Participants were 167 OEF–OIF Veterans recruited from mental health ($N=102$; 61.1%) or primary care ($N=65$; 38.9%) clinics at VA Connecticut Healthcare System in West Haven, CT, USA. Veterans recruited from mental health clinics were slightly younger than those recruited from primary care clinics (28.4 ± 0.6 vs. 30.9 ± 1.0 years; $t(164)=2.05$, $P=0.042$), but did not differ with respect to any other demographic or psychosocial variables (all t's<1.83; all p's>0.07). Thus, these groups were combined for analyses. All Veterans were within a year of returning from their only or most recent deployment. The participation rate was high, with more than 80% of those who were approached agreeing to participate in the survey. Participants were not compensated for their participation. Institutional review boards of VA Connecticut Healthcare System and Yale University approved this study. All participants provided written informed consent.

2.2. Assessments

The Thought Control Questionnaire (TCQ; Wells and Davies, 1994) is a 30-item self-report measure that assesses the frequency of use of six thought control strategies: worry ("When I experience an unpleasant/unwanted thought, I dwell on other worries"; α in current sample $=0.80$); self-punishment ("When I experience an unpleasant/unwanted thought, I get angry at myself for having the thought"; $\alpha=0.76$); reappraisal ("When I experience an unpleasant/unwanted thought, I try a different way of thinking about it"; $\alpha=0.79$); behavioral distraction ("When I experience an unpleasant/unwanted thought, I occupy myself with work instead"; $\alpha=0.67$); cognitive distraction ("When I experience an unpleasant/unwanted thought, I call to mind positive images instead"; $\alpha=0.62$); and social control ("When I experience an unpleasant/unwanted thought, I find out how my friends deal with these thoughts"; $\alpha=0.60$). Items are rated on a 4-point Likert scale, from "1" ("Never") to "4" ("Almost always").

The Cognitive-Behavioral Avoidance Scale (CBAS; Ottenbreit and Dobson, 2004) is a 31-item self-report instrument that assesses avoidance strategies. CBAS items are rated on a 5-point Likert scale ranging from "Not at all true for me" to "Extremely true for me." Four subscales, which reflect different avoidance strategies, are derived: