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Using Prolonged Exposure and Cognitive Processing Therapy to Treat Veterans With Moral Injury-Based PTSD: Two Case Examples

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Moral injury refers to acts of commission or omission that violate individuals' moral or ethical standards. Morally injurious events are often synonymous with psychological trauma, especially in combat situations—thus, morally injurious events are often implicated in the development of posttraumatic stress disorder (PTSD) for military service members and veterans. Although prolonged exposure (PE) and cognitive processing therapy (CPT) have been well established as effective treatments for veterans who are struggling with PTSD, it has been suggested that these two evidence-based therapies may not be sufficient for treating veterans whose PTSD resulted from morally injurious events. The purpose of this paper is to detail how the underlying theories of PE and CPT can account for moral injury-based PTSD and to describe two case examples of veterans with PTSD stemming from morally injurious events who were successfully treated with PE and CPT. The paper concludes with a summary of challenges that clinicians may face when treating veterans with PTSD resulting from moral injury using either PE or CPT.

Posttraumatic stress disorder (PTSD) affects approximately 23% of all Operation Enduring Freedom/Operation Iraqi Freedom service members and veterans (Fulton et al., 2015; Hoge, Riviere, Wilk, Herrell, & Weathers, 2014; Wisco et al., 2014). Given the large number of military personnel that are affected by traumatic events, researchers and clinicians have been interested in better understanding the complex and multifaceted nature of military trauma (e.g., Gray et al., 2012; Litz, Lebowitz, Gray, & Nash, 2016; Stein et al., 2012). Researchers have begun to categorize traumatic experiences into three distinct categories: fear-based trauma (e.g., fearing for losing one's life in a firefight), loss-based trauma (e.g., losing a close friend in an explosion), and moral injury-based trauma (Gray et al., 2012; Litz et al., 2016). Moral injury, or the violation of one's deeply held moral or ethical standards, is often synonymous with psychological trauma (Litz et al., 2009).

One relatively common example of moral injury among post-9/11 service members and veterans is directly or indirectly causing or witnessing harm, injury, or death to innocent civilians while on deployment. In one survey study, Hoge and colleagues (2004) found that nearly 10% of the sample of deployed soldiers and Marines endorsed responsibility for the death of noncombatants. Other examples of moral injury include disproportionate violence, violence within ranks, and betrayal, to name a few (Drescher et al., 2011). In response to participating in or witnessing potentially morally injurious events, such as the examples above, service members and veterans tend to experience a wide range of emotions, including guilt, shame, sadness, anger, humiliation, and numbness (Litz et al., 2009; Stein et al., 2012). When the diagnostic criteria for PTSD are met, this phenomenon can be referred to as moral injury-based PTSD.

While similar emotional reactions can be observed in individuals with PTSD based on loss and fear, the presence of moral injury is believed to further intensify feelings of guilt and shame, complicate the forgiveness process, and interfere with recovery (Bryan, Ray-Sannerud, Morrow, & Etienne, 2013; Currier, Holland, & Malott, 2015; Litz et al., 2009). Although the aforementioned cycle may resemble one model describing the development and maintenance of PTSD (e.g., Ehlers & Clark, 2000), some have suggested that moral injury-based PTSD may be characterized by more intense reexperiencing and less intense hyperarousal symptoms compared with fear- or loss-based PTSD (Gray et al., 2012; Litz et al., 2009). Because of the potential differences between fear- or loss-based PTSD and moral injury-based PTSD, there have been discussions about the effectiveness of existing evidence-based therapies for PTSD

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when treating service members and veterans who are struggling with moral injury-based PTSD (Gray et al., 2012; Litz et al., 2016; Steenkamp, Litz, Hoge, & Marmar, 2015). Both the Department of Veterans Affairs (VA) and the Department of Defense (DoD) guidelines endorse two cognitive-behavioral therapies—prolonged exposure (PE) and cognitive processing therapy (CPT)—as frontline treatments for veterans experiencing PTSD (Department of Veterans Affairs & Department of Defense, 2010). A key concern that has been expressed is that existing evidence-based treatments, such as PE and CPT, were developed when PTSD was conceptualized mostly as a fear-based disorder (Gray et al., 2012; Litz et al., 2016).

Two arguments have been proposed as to why existing evidence-based, cognitive-behavioral PTSD treatment protocols may not be effective for treating moral injury-based PTSD (Steenkamp, Nash, Lebowitz, & Litz, 2013). First, PTSD was originally conceptualized as a fear-based disorder, and PE and CPT, to some extent, rely on habituation to decrease fear and anxiety, thereby reducing PTSD symptoms. Moral injury-based PTSD, on the other hand, involves more complex experiences than simple life threat, and as such, produces more complex emotional responses that may not respond to habituation. Therefore, in cases where guilt and shame are prominent, exposure-based treatments would be contraindicated. Second, Steenkamp and colleagues (2013) have argued that cognitions that are purported to underlie fear- or loss-based PTSD (e.g., "I am incompetent" and "The world is completely dangerous") are completely different from those that underlie moral injury-based PTSD (e.g., "I am a monster" or "I can never be good again because of what I have done"). They argue that cognitions dealing with morality may need a different approach than the nondirective processing involved in PE or the active rational discussion of CPT. To address the cognitions that underlie moral injury-based PTSD, some have suggested that veterans with moral injury-based PTSD need to engage in an imaginary dialogue with a benevolent, forgiving moral authority (Gray et al., 2012). Specifically, Gray and colleagues (2012) suggested that "existing CBT may not sufficiently address the needs of war veterans because the fear conditioning and learning model does not sufficiently explain, predict, or address the diverse psychic injuries of war" (p. 408). Consistent with this concept, higher rates of moral injury-based PTSD in veteran populations may explain why treatment outcomes for veterans produce smaller effects compared with civilian samples (Monson et al., 2006; Steenkamp et al., 2015). However, no empirical study to date has explicitly tested the claim that existing frontline treatments are less successful in treating moral injury-based PTSD.

Although it has been proposed that existing evidence-based treatments for PTSD do not sufficiently address PTSD that stems from a morally injurious traumatic event, we have repeatedly found in our clinical practice that PE and CPT have effectively reduced symptoms that stem from moral injury-based PTSD. The purpose of this paper is to describe how the theories underlying PE and CPT can account for moral injury-based PTSD and provide two clinical case examples that demonstrate the effective use of PE and CPT for PTSD that developed from a morally injurious event. Specifically, we detail the cases of Carlos and David (both are pseudonyms), as they represent two clear examples of moral injury-based PTSD and appear to demonstrate how a shift in meaning making, as facilitated by the PE and CPT protocols, explain a reduction in PTSD symptoms and lessening of the cognitions commonly associated with moral injury.

Prolonged Exposure

PE (Foa, Hembree, & Rothbaum, 2007) is an evidence-based treatment modality developed to reduce the intensity and frequency of PTSD symptoms. PE is a structured treatment that involves approximately 10 sessions lasting 90 minutes each (Foa et al., 2007). It largely consists of imaginal exposure conducted in session and in vivo exposure conducted as homework assignments. The overall goal of the treatment is to actively address the two major criteria that are thought to prolong the symptoms of PTSD—avoidance and erroneous beliefs about oneself, others, and the world (Foa et al., 2007). In a meta-analysis of 13 studies with over 675 patients examining the effectiveness of PE, patients who received PE reported more significant reductions in symptoms than 86% of patients in control conditions (Powers, Halpern, Ferenschak, Gillihan, & Foa, 2010). A second meta-analysis showed that on average, 68% of those who complete treatment no longer meet the diagnostic criteria for PTSD (Bradley, Greene, Russ, Dutra, & Westen, 2005). Based on these research findings, PE is consistently recommended as a frontline treatment for PTSD (Department of Veterans Affairs & Department of Defense, 2010; Ursano et al., 2004).

Emotional processing theory (EPT; Foa & Cahill, 2001; Foa & Kozak, 1986) serves as the theoretical foundation for PE. According to EPT, fear structures in memory encode and connect representations of feared stimuli, responses, and the meaning of stimuli and responses. This structure is activated when input matches the information stored in the structure. In PTSD, the fear structures associated with the trauma memory become pathological when the associations among stimulus, response, and meaning elements do not accurately reflect reality. Most commonly, stimulus elements become erroneously associated with the meaning of danger and response elements become erroneously associated with self-incompetence. Avoidance and inaccurate perceptions of oneself and the

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