From the Boots on the Ground: A Comparison of the Attitudes and Beliefs of Military Members and Mental Health Professionals Regarding the Moral Injury Construct

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FROM THE BOOTS ON THE GROUND: A COMPARISON OF THE ATTITUDES AND
BELIEFS OF MILITARY MEMBERS AND MENTAL HEALTH PROFESSIONALS
REGARDING THE MORAL INJURY CONSTRUCT

by

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DEDICATION

In dedication to my grandmother, Bernice Anne Callaway (1923 - 2009). Thank you for preemptively understanding the doors that education would open for me, even when they were closed to you. This doctoral journey has been as much yours as it has been mine.

She is clothed with strength and dignity, and she laughs without fear of the future.

– Proverbs 31:25 (NLT)

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An increasing amount of research conducted in recent years indicates that, in addition to Posttraumatic Stress Disorder, moral injury is a key concept to recognize when considering the deployment experiences of service members. Although related to Posttraumatic Stress Disorder, which is a fear-based mental health diagnosis, moral injury is a distinct concept. It acknowledges the possible prolonged negative psychological, social, and spiritual consequences that may occur after experiences that challenge and transgress one's deeply held moral beliefs. Events such as perpetration of harm, failing to protect or prevent harm, and witnessing or learning about distressing acts committed by influential others are experiences with the potential to be morally injurious.

This explorative study investigates military members' and mental health providers' current attitudes and beliefs regarding the concept of moral injury. The emergent data from a sub-sample of participants with a history of both military service and mental health training is also examined. Each group's level of understanding of relevant moral injury terminology and its usage and perceived applicability to military deployment-related psychological experiences are compared and evaluated. Hypothetical scenarios within a deployment context with the potential to be morally injurious are also assessed, as are preliminary analyses on participants' prior moral

development and spiritual or religious involvement and upbringing. The comparison of the quantitative and qualitative data collected from service members, the military and mental health trained sub-sample, and the mental health professionals yields an informative picture of military personnel's views on moral injury. The identified similarities and differences are a critical addition to the burgeoning research literature, as service members' applied moral injury perspectives are presently underrepresented.

The findings of this study may assist in determining if expert information about moral injury is being disseminated to and consumed by the service member population, and which aspects of this concept service members note as potentially applicable to themselves and their deployment-related experiences. The results also offer military personnel an opportunity to share their perceptions with an academic audience, perceptions that may have otherwise remained generally unsolicited and overlooked. Ultimately, this study's findings may assist in determining whether, how much, and in which direction moral injury should continue to receive further investigative attention, including construct validation and large-scale randomized control trials for therapeutic interventions.

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Posttraumatic Stress Disorder (PTSD)

Mental Health Professional (MHP)

Potentially Morally Injurious Event (PMIE)

Mental Health Advisory Team (MHAT)

Impact of Killing module (IOK)

Combat Exposure Scale (CES)

Moral Injury Events Scale (MIES)

Military and Mental Health Training (MMHT)

Moral Development Scale (MDS)

Moral Injury Survey (MIS)

CHAPTER I

INTRODUCTION

An awareness of military-related mental health concerns arising from responses to traumatic experiences has been documented for centuries (Shay, 1994, p. xiii). The commonly identified war zone involvements (e.g., combat exposure, witnessing or participating in abusive violence, and receiving military disciplinary action) have been found to contribute most strongly to service members' development of general psychiatric symptoms and Posttraumatic Stress Disorder (PTSD; Fontana & Rosenheck, 1993). Combat exposure has been found to have a direct link to PTSD etiology along with the fact that "…the more combat [a service member has] experienced, the more prone they [are] to participate in abusive violence" (p. 489). Abusive violence, more commonly referred to as perpetration violence, is now often classified as a morally injurious event from which a moral injury can stem. Recently, Wisco et al. (2017) also determined that combat exposure has a moderate positive correlation with moral injury.

Moral injury is a concept that has recently gained attention in the academic literature as a complimentary, yet distinct, syndrome from PTSD or its diagnostic predecessors (e.g., battle fatigue; Jinkerson, 2016; Drescher, Foy, Kelly, Leshner, Schutz, & Litz, 2011; Held et al., 2017; Keizer, 2017). It refers to the psychological consequences of a betrayal of "what's right" (Shay, 2014 p. 182) during a high-stakes situation. This betrayal can occur because of either a personal action or inaction or at the hands of another individual who holds genuine authority (Litz et al., 2009; Shay, 2014). The term 'moral injury' is used to depict sustained negative "…emotional, psychological, behavioral, spiritual and social…" consequences of perceived "…acts that transgress deeply held moral beliefs and expectations…" (Litz et al., 2009, p. 695). The

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suggested symptomology includes guilt, shame, anger, re-experiencing difficult memories, avoidance, emotional numbing, an impaired capacity for trust, despair, suicidality, and interpersonal violence (Shay, 2014, p. 186; Harris et al., 2015, p. 2; Jinkerson, 2016).

Retrospectively, the documentation of combat-related moral injury sequela is now more apparent in previous work although it typically has been subsumed under post-traumatic stress reactions. Professionals and veterans alike have alluded to the concept of moral injury following various conflicts from those as recent as Afghanistan, to more historical encounters such as the Vietnam war, World War II, and the American Civil War. Additionally, implications for morals have also been suggested in non-militarized conflicts like South African apartheid (Summerfield, 2002). Various scholars have further acknowledged that for centuries ancient populations such as the Maori, Sri Lankans, and Greeks have depicted their own conceptualizations of moral injury (Tick, 2014; Meagher, 2006; Meagher & Pryer, 2018).

Since contemporary investigation into understanding and addressing moral injury is now underway, it is both necessary and advantageous to contribute the perspectives of those with applied experiences and balance them with those of professional experts (Nash, 2010; Litz et al., 2009). Typically, literature in other areas of mental and physical health demonstrate distinctions between care providers and their patients concerning the prevalent attitudes and beliefs with regard to the defining features of a troublesome condition. To date, there have been no comparative investigations conducted that measure professional versus personal perspectives on moral injury and the depiction of personal deployment experiences in the moral injury research is underrepresented. This descriptive study aspired to contribute to the balancing of these two

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essential groups of perspectives and stimulate further investigative research into moral injury as it relates to military populations and their deployment experiences.

CHAPTER II

LITERATURE REVIEW

Moral injury definition

Moral injury, or "moral injury syndrome" (Frankfurt & Frazier, 2016, p. 318; Jinkerson, 2016) as it is sometimes identified, is considered a relatively new designation to the academic literature (Shay, 2014, p. 183; Molendijk, 2018). Although previously alluded to in ancient writings under differing terminology, the term 'moral injury' surfaced in the 1990s as a concept for consideration when discussing the psychological outcomes of participation in military conflicts (Meagher, 2006; Tick, 2014). Shay (2004) is credited with introducing the concept through his extensive psychiatric work with Vietnam veterans. Moral injury has typically not been suggested with the intent of developing a new diagnostic label, but rather for the purpose of reiterating that traumatic experiences can extend well beyond fear and imminent threat to physical safety that have characteristically defined problematic post-traumatic stress responses (Litz et al., 2009, p. 696; Callaway & Spates, 2016, p. 2; Farnsworth, Drescher, Nieuwsma, Walser & Currier, 2014, p. 250). Since its inception, moral injury has gained traction as a potentially valuable construct for mental health professionals (MHPs) who offer therapeutic services to military members and veterans who balance a sense of morality presumably developed from both civilian and military cultures (Molendijk, 2018).

In 2009, Litz and colleagues noted that "…the lasting impact of morally injurious experience[s] in war remain[ed] chiefly unaddressed" (p. 695). To generate continued discourse on the topic, they offered a working definition and conceptual framework for moral injury andsuggested possible treatment strategies. In this seminal article, moral injury was broadly defined as the prolonged negative "…emotional, psychological, behavioral, spiritual and

social…" consequences of perceived "…acts that transgress deeply held moral beliefs and expectations…" (p. 695). "Perpetrating, failing to prevent, bearing witness to, or learning about acts" (p. 700) that contradict one's personal moral expectations are experiences that could potentially precede the initiation of a moral injury. Some specific examples of potentially morally injurious events (PMIEs) may include unexpectedly seeing deceased bodies or human remains, mistakenly harming a civilian or being unable to assist injured and vulnerable populations while in a combat theater (p. 697). The suggested symptomology of moral injury according to Litz et al. (2009) include: guilt, shame, anxiety, intrusive thoughts, avoidance (p. 698), social withdrawal, self-condemnation, emotional numbing, and self-harm (p. 700).

Litz et al. (2009) compared their postulated conceptualization of moral injury to social-cognitive theories, emotional-processing and the two-factor theory of PTSD. Their suggested model proposed that moral injury stems from experiencing an unanticipated act of transgression or omission that creates dissonance and intrapersonal conflict. This inner conflict is due to the abrupt and challenging nature of the violation of held moral and ethical beliefs and assumptions about "personal goodness" (p. 698). A symptomatic individual would be unable to satisfactorily integrate their PMIEs with previously held beliefs; the "dissonance" could not be blended with their "existing self- and relational-schemas" (p. 698) or learned behavioral patterns. This incongruence would lead to intrusive thoughts and avoidance behaviors that increased the individual's level of psychological distress. Such distress would then exacerbate moral injury symptoms of "guilt, shame, and anxiety about potential dire personal consequences (e.g., ostracization)" (p. 698). These emotions in turn would perpetuate a cyclical pattern of increase experiential avoidance, cognitive dissonance and disintegration and altered beliefs about the self and the world (e.g., personal belief of "I am immoral"). Moderating factors such as social

condemnation, attributions of the moral violation (e.g., global versus context dependent, etc.) and elapsed time since the PMIE could further lead to one's disengagement in corrective and repairing experiences (Held et al., 2018). This could continue to intensify the symptomology of the moral injury.

Shay (2014) differs slightly from Litz et al.'s (2009) suggested definition and symptom presentation. He believes that moral injury is "a betrayal of "what's right" by a person in legitimate authority…in a high stakes situation" (p. 182) and that moral injury focuses the locus of control in the situation external to the individual ("*they* made me do it;" Callaway & Spates, 2016, p. 3). For Shay, he notes that "in [Litz et al.'s] definition the violator is the self, whereas in mine the violator is the powerholder" (p. 184). Shay further notes that these differing beliefs are not incompatible but instead that Litz et al.'s (2009) definition constitutes "…an equally devastating second form of moral injury" (Shay, 2004, p. 184). For Litz and his colleagues, the individual is perceived as responsible for the moral transgression, "*I* did it" (Callaway & Spates, 2016, p. 4). Ultimately, in both "flavors" (Shay, 2014, p. 186) of moral injury, one's capacity for trust is impaired or destroyed.

Most recently, Jinkerson (2016) offered a definition for moral injury syndrome that encompasses both Litz et al.'s (2009) and Shay's (2014) contributions. Jinkerson (2016) states that:

> Phenomenologically, moral injury represents a particular trauma syndrome
> including psychological, existential, behavioral, and interpersonal issues
> that emerge following perceived violations of deep moral beliefs by oneself
> or trusted individuals (i.e., morally injurious experiences). These
> experiences cause significant more dissonance, which if unresolved, leads
> to the development of its core symptoms (p. 126).

In an effort to be brief so as not to increase the burden of research participation on

respondents and to accommodate a range of possible education levels, Litz et al.'s (2009) and Shay's (2014) definitions were both encompassed in the present study's presentation of moral injury.

Drescher et al. (2011) interviewed 21 participants who were either affiliated with the U.S. Department of Defense or the Veteran Affairs system through their roles as chaplains, academic researchers, policy makers or mental health providers. Of these participants, five had previous military experience prior to professional mental health training. The participants were asked questions about their views on moral injury such as the adequacy of its label and working definition, appropriateness for clientele, distinction from PTSD, symptomology and suggested beneficial therapeutic interventions.

The qualitative findings indicated that the participants unanimously found the diagnostic criteria of PTSD to not "adequately cover" (p. 10) all the mental health-related concerns of their clients' post-deployment reports. They endorsed the belief that moral injury and PTSD were separate conditions from one another although the two may frequently present co-morbidly. The respondents also collectively agreed that the current definition of moral injury was lacking and needed improvements. However, no suggested definitional improvements were clearly endorsed by the authors. 35% of the participants also recommended a preference for re-naming moral injury although no consensus was sought. Suggested name changes included "moral repair" (p. 11), "moral disruption," "spiritual injury" and "personal values injury" (p. 12). Presently, moral injury remains unsatisfactorily labelled and defined, yet its beneficial nature to the discourse on difficult reactions to military trauma has proven heuristic; it has successfully stimulated increased investigation (Harris, Currier, Park, Usset & Voecks, 2015).

Moral injury symptomatology

No formal construct validation quantitative research on moral injury could be located in the literature that was reviewed prior to conducting this study. The search terms "construct validation moral injury," "validation moral injury," and "validation moral" were utilized on a large university library website that included a search of popular scholarly databases such as PsycInfo and Scopus (date range December 2016 – September 2017 and April 2018 – July 2018). Therefore, definitive symptomatology of moral injury has yet to be examined and agreed upon although experts have offered various hypotheses. Inappropriate guilt, shame, exaggerated anger, cognitive or emotional re-experiencing of the initial event, avoidance, emotional numbing, a mistrust of self, others, or related social institutions (e.g., government, Army, religion), social withdrawal, isolation, self-harm and self-handicapping behaviors (e.g., self-sabotaging interpersonal relationships, substance misuse), moral disgust and moral contempt are the symptoms that are most commonly proposed (Shay, 2014, p. 186; Harris et al., 2015, p. 2; Currier, Holland & Malott, 2014, p. 229; Maguen & Litz, 2012, p. 1; Farnsworth et al., 2014; Kelley, Braitman, White, Ehlke, 2018). As opposed to other mental health concerns, moral injury has been described as a "dimensional problem" (Maguen & Litz, 2016, para. 10) indicating that its symptomology can present at different times and with fluctuating levels of intensity. This suggestion adds to the complexity of definitively identifying its manifestations.

Recently, Jinkerson (2016) proposed that sufficient criteria had been met to endorse the view that moral injury should now be considered a formal mental health syndrome. He noted that the evidence considered included the presence of etiology and symptomatology descriptions and that these descriptions were receiving adequate empirical support. These criteria are deemed satisfactory for syndromal classification as per the field of medicine (Venes, 2013). Jinkerson

(2016) posited that moral injury is made up of core and secondary symptomatic features. The core symptoms include guilt, shame, "spiritual/existential conflict including subjective loss of meaning in life," (p. 126) and loss of trust in oneself, others, or religious or spiritual beings, and that secondary characteristics entail "depression, anxiety, anger, re-experiencing of the moral conflict, self-harm," (p. 126) and social problems. He goes on to suggest additional syndrome criteria (e.g., PMIE) and notes research limitations that currently prevent the development of a diagnostic category of moral injury. Jinkerson's views on developing a diagnostic category and for evaluating whether moral injury "criteria" is "present" (p. 126) or not is contrary to many other experts' views on medicalizing and "measuring" (Cantrell & Nieuwsma, 2018, n.p.) morality (Litz et al., 2009, p. 696; Drescher, 2015; Farnsworth et al., 2014, p. 250; Callaway & Spates, 2016, p. 2; Cantrell & Nieuwsma, 2018). By diagnosing and holding a "treatment mentality" (Cantrell & Nieuwsma, 2018, n.p.) Jinkerson (2016) suggests that the search for a *cure* to a *disorder* is warranted. On the contrary, openly acknowledging that morality is a natural part of the human experience and that moral struggles wax and wane between cultures, generations, and social climates may be a more appropriate aspiration (Summerfield, 2002; Boudreau, 2011). Ultimately, the therapeutic aspect of addressing moral injury may lie in *not* medicalizing it but, instead, allowing for the "practical and unspectacular…resumption of the ordinary rhythms of everyday life" (Summerfield, 2002, p. 1107) to occur naturally (Battles et al., 2018).

Guilt and shame. Despite a lack of academic investigation on moral emotions in general, moral emotions are an area of research explicitly lacking with respect to veteran and military populations (Farnsworth et al., 2014, p. 253). Tangney, Stuewig and Mashek (2007) define moral emotions as those that "…are linked to the interests or welfare either of society as a whole

or…of persons other than the judge…. [They] provide the motivational force—the power and energy—to do good and to avoid doing bad" (p. 2). Moral emotions are distinct from other emotions in that they function to preserve social relationships (Farnsworth et al., 2014, p. 251).

One way an inappropriate level of guilt is thought to be caused is by experiencing PMIEs. Therefore, guilt is a commonly postulated symptom of moral injury (Jinkerson, 2016). Guilt is a "complex construct involving both affective and cognitive components, real or imagined moral transgression, and behavioral self-blame" (Smith, Daux & Rauch, 2013, p. 462). Different variations of it have been identified and they typically all involve feelings of personal responsibility for an incident and remorse for actions or inactions (Kim, Thibodeau, & Jorgensen, 2011). Although unpleasant to endure, guilt is categorized as a prosocial emotion because of its motivating nature to repair damages such as inspiring one to offer an apology (Farnsworth et al., 2014, p. 251; Tangney et al., 2007). This aspect of motivation is often what distinguishes guilt from shame.

Unlike guilt, shame typically demotivates an individual to act and is not viewed as a prosocial moral emotion. A shamed individual develops a global and persistent view of their core self that generates feelings of worthlessness, powerlessness, vulnerability, and reiterates engagement in undesirable actions (e.g., thinking "I am a bad person who does bad things;" Farnsworth et al., 2014, p. 251). They may also "punish themselves with internal criticism and become a barrier to the support that is often available to them" (Gaudet et al., 2016, p. 57). Shame is thought to be one of the most detrimental symptoms of combat-related concerns and a primary component of moral injury symptomology (Singer, 2004; Gaudet et al., 2016).

While the relationship between shame and PTSD has long been documented, understanding shame's connection to moral injury is still in its infancy and has yet to be

quantitatively documented (Farnsworth et al., 2014, p. 252; Jinkerson, 2016). Shame has been found to be a strong predictor of PTSD as it is independently associated with each symptom criterion (Van Dam, Sheppard, Forsyth, & Earleywine, 2011; Gaudet et al., 2016, p. 61). Shame has also been correlated with concerns beyond formal diagnoses in military personnel such as increased levels of suicidality, substance misuse, anger, and aggression issues (Bryan, Morrow, Etienne, & Ray-Sannerud, 2013; Tanguey & Dearing, 2002). Orth and Weiland's (2006) meta-analysis determined that shame, anger and PTSD symptoms increase in intensity with the more time that passes from the initial traumatic incident for all traumatized adults and that this was particularly relevant for military veterans. Mason et al. (2001) examined the urinary cortisol levels of 30 World War II veterans diagnosed with PTSD and found "a significant inverse relationship" between cortisol, emotional numbing, and "shame-laden depression" (p. 387). They suggested that emotional numbing was one of the avoidance coping strategies used when an individual contacted their feelings of preoccupying shame. If true, this suggestion may indicate the influence that shame can have on other postulated mental health symptoms such as those for moral injury. This information could have an impact in determining and administering treatment interventions for moral injury as well as in outcome research. What has yet to be clarified by research of both PTSD and moral injury is whether an individual's propensity for shame is a risk factor or a consequence (Gaudet et al., 2016).

It is important to note potential definitional issues which complicate the applicability of the shame and guilt research. "Combat guilt" (Farnsworth et al., 2014, p. 252) is a term typically reserved for painful emotions stemming from warfare involvement and it is used in much of emotion-related research on veterans. Its usage "…may obscure crucial distinctions within and between the moral emotions of guilt and shame" (p. 252) which is problematic not only because

it blurs the lines between guilt and shame, but also between the variations of guilt (e.g., specific guilt and generalized guilt) which leads to unclear findings such as that "combat-related guilt may have an independent effect on mental health, above and beyond combat severity" (Wisco et al., 2017, p. 341).

These nuanced differences between guilt and shame, and the sub-types of guilt, have the potential for large impacts on research and clinical practice. Due to this, researchers are "…encouraged to select instruments that clearly differentiate…" (Farnsworth et al., 2014, p. 252) between these constructs in their investigations. Without at least distinguishing between guilt and shame, treatment options for moral injury may potentially be misguided.

Moral injury as distinct from PTSD. Many professionals consider PTSD to be "the signature wound" (Tick, 2014, p. xi) of the recent conflicts in Iraq and Afghanistan. However, since PTSD and moral injury are thought to be distinct yet highly comorbid constructs, it is critical to also recognize the role of moral injury when discussing the prevalence of military-related PTSD (Dresher et al., 2011, p. 10; Jinkerson, 2016).

PTSD and moral injury are considered to have many commonalities including an initial triggering event, re-experiencing symptoms such as nightmares or flashbacks, avoidance, numbing symptoms, and post-trauma negative cognitions (Shay, 2014, p. 185; Litz et al., 2009, p. 698; Held et al., 2017). This is perhaps, however, where their similarities end.

For PTSD, the triggering event is typically viewed as actual or threatened death or serious injury causing feelings of fear, horror, and helplessness although this criterion (i.e., criterion A1) has been unsatisfactorily expanded in recent years (American Psychiatric Association, 2013, p. 271; McNally, 2009). Furthermore, it is believed that the role the individual is typically occupying when the PTSD triggering event occurs is that of a victim or a

witness (Shay, 2014 p. 185). In contrast, the triggering event for moral injury is something that violates deeply held beliefs and generates feelings of guilt, shame, and anger instead of primarily generating fear. The potential roles occupied during the morally injurious event are expanded to include perpetrator in addition to that of victim or witness (Shay, 2014, p. 185).

Experts agree on the above noted similarities and differences in triggering events and resultant emotional experiences; however, there is no consensus on the role of physiological arousal. Shay and Litz, two of the most prominent authorities in the moral injury literature, disagree on the role of physiological arousal in the moral injury symptomology. Shay (2014) argues that physiological arousal is a component of the moral injury constellation because the body codes a psychological attack as a physical one. He notes that ultimately, a physical and a psychological response are indistinguishable from one another and that regardless of how the assault is delivered, the body still "mobilizes for danger and counterattack" (p. 185).

Litz and colleagues (2009) disagree and suggest that physical arousal does not have to be a symptom of moral injury (p. 697). Given that moral injury is not a fear-based syndrome like PTSD, the sympathetic nervous system (i.e., the physiological home of the flight-or-fight response) is not necessarily activated during a PMIE and therefore may not become over-stimulated in subsequent reminders of the triggering event (Jinkerson, 2016). Litz et al. (2009) note that previous research on exposure to atrocities has determined that re-experiencing and avoidance, not physiological arousal, are the salient symptoms in post-trauma responses. No conclusive research has been conducted as of yet on whether physiological arousal is or is not a symptom of moral injury.

Potentially morally injurious events (PMIEs)

Although uncommon for many mental health concerns, experts believe that the etiology

of moral injury stems from one or more specific and identifiable events. Nash and Litz (2013) recognized five such PMIEs including: (1) perceived perpetration; (2) an inability to prevent death or harm; (3) bearing witness to death or harm; (4) the loss of loved ones; and (5) malevolent environments (p. 367; Jinkerson, 2016). These categorizations can further be divided into two broad groups based on the use of physical force. Perceived perpetration would constitute one group with the other group consisting of a "category of war-related experiences involv[ing] severe … ethical challenges in the combat context" (Stein et al., 2012, p. 788; MacNair, 2002). In this second group, the internal "dissonance" (Litz et al., 2009, p. 698) that develops is the main source of the resulting moral injury symptoms. Research on these suggested moral injury categorizations is ongoing with the majority of studies having been conducted on perpetration.

The Mental Health Advisory Team (MHAT) assesses and reports on the various factors associated to the mental health wellbeing of U.S. Army members. They conduct their work in deployment theaters and endeavor to provide representative statistics for individual soldiers. In 2008 during the U.S. involvement in conflicts in both Iraq and Afghanistan, it was estimated that 33% of Operation Iraqi Freedom deployed soldiers had faced unfamiliar ethical situations in which they were uncertain of how to proceed (MHAT-V, p. 58). Currier, Holland, and Malott, (2014) confirmed that the connection between a PMIE and mental health concerns were statistically significant and that the more PMIEs a service member experienced, the less able they were to reconcile these experiences with their preexisting moral beliefs.

Stein et al. (2012) assessed 122 military members who had experienced a combat trauma and categorized their experiences into six different trauma groups. Over 50% (n = 66) of the traumas were placed into multiple groups. They found that 22% of the traumas fit into the

"Moral Injury by Others" (p. 792) category in which the participant was most disturbed by witnessing or being the victim of an act that violated their moral beliefs. They also categorized 12% of the traumas into the "Moral Injury by Self" (p. 792) grouping in which the participants openly acknowledged committing a morally challenging act themselves. The Moral Injury by Self category was found to be a significant predictor of the Trauma-Related Guilt Inventory's subscales of Hindsight Bias/Responsibility (p = .003) and Wrongdoing (p = .043), but not of the Lack of Justification subscale. This suggests that even though military members can understand the underlying rationale for their morally challenging actions and consider the uniqueness of the deployment context, they can and do still also experience problematic levels of guilt after a PMIE (p. 798).

In Stein et al.'s (2012) construct validation, they noted that the Moral Injury by Others and Moral Injury by Self categorizations were more strongly correlated with post-trauma reactions such as guilt, anger and re-experiencing, as opposed to peri-trauma (Jinkerson, 2016). As expected, this indicates that severe emotional responses are more likely to occur after a PMIE as opposed to during the experience as is often the case leading to a PTSD diagnosis. Stein et al. (2012) suggested that the additional time for personal reflection post-PMIE may contribute to the growing emotional response (p. 798). Litz et al. (2009) also acknowledged the potential increasing distress that can occur post-PMIE. They broaden this idea to include that once an individual is separated from the military culture (e.g., discharged), the disparities between their deployment actions and moral beliefs may ignite the potential for distress long after the PMIE transpired (p. 697). Unsupportive homecoming and reintegration occurrences that returning troops face are also factors that contribute to the exacerbation of a moral injury (Farnsworth et al., 2014, p. 250).

PMIEs prevalence rates. In 2017, Jordan, Eisen, Bolton, Nash, and Litz conducted the first prevalence study for PMIEs. They studied a "highly combat-exposed" (p. 632) sample (n = 867) of active duty U.S. Marines who had been deployed to Afghanistan during the previous eight months. They assessed the Marines' self-reported rates of perpetration-based PMIEs through the Moral Injury Events Scale (MIES) and discovered that over one third (37.5%) of the sample endorsed experiencing perpetration- or betrayal-based PMIEs.

Even more recently, Wisco et al. (2017) added to the developing PMIE prevalence literature by conducting a secondary analysis on a sample (n = 564; 38.3% inclusion rate) of select participants from those surveyed as part of the larger National Health and Resilience in Veterans Study (Wisco et al, 2016). Both studies included a large nationally representative sample of American veterans, with Wisco et al. (2017) specifically utilizing combat veterans' responses. PMIE prevalence rates in the veteran population were measured through the MIES. Results showed that 41.8% (n = 223) of surveyed U.S. combat veterans endorsed experiencing at least one PMIE. 25.5% (n = 150) indicated exposure to one type of the evaluated PMIEs including either transgression by others, betrayal, or transgressions by self with the most prevalent PMIE being either transgression by others or betrayal. 12.4% (n = 53) of the sample endorsed exposure to two PMIEs and 3.8% (n = 20) indicated enduring all three types of PMIEs. Wisco et al. (2017) went on further to evaluate each type of PMIE relation to mental health disorders and suicidality. They found that transgressions by self were highly correlated with mental disorders (e.g., "depression" as assessed by the Patient Health Questionnaire-4, "anxiety" as assessed by the Generalized Anxiety Disorder scale, and PTSD as assessed by the PTSD-Checklist-5; p. 342) and suicidal ideation, and that betrayal was associated with suicide attempts. This study serves as the basis for indicating that moral injury in veteran populations, as well as

among active duty members, is a relatively prevalent issue that requires continued investigative attention.

Professional perspectives on moral injury

Non-military populations. In addition to the military and veteran populations, the burgeoning research on moral injury has also included several studies in the fields of nursing, social work, child protective services, and education (McCarthy & Deady, 2008; Fenton & Kelly, 2017; Haight, Sugrue, Calhoun & Black, 2016; Haight, Sugrue, Calhoun & Black, 2017a; Haight, Sugrue, Calhoun & Black, 2017b). Currier, Rojas-Flores, Herrera, Holland, and Foy (2015) investigated moral injury and meaning making by surveying 257 Salvadorian teachers. In addition to serving as instructors, teachers in the Global South typically engage their students in several other roles such as mentors, advocates, counselors and role models (p. 24). These diverse responsibilities often subject teachers to PMIEs such as "specific incidents of violence in their schools…, betrayal by educational leaders, mistreatment of students, and an inability to prevent the suffering of students" (p. 25). Half of the teachers surveyed in this study reported witnessing acts of revenge or retribution on school property, felt guilty about the suffering of their students, experienced betrayals from educational leaders, lacked the resources to care for students, and became desensitized to violence (p. 29). The structural equation modeling results found that it was the PMIEs that were uniquely linked with teacher PTSD symptoms and rates of burnout as opposed to direct victimization and demographic factors. Those teachers who reported greater exposure to PMIEs had "greater problems" (p. 29) with both PTSD and burnout rates than those who did not endorse PMIE exposure. This study reiterates moral injury experts' views that a more encompassing conceptualization of trauma (e.g., not just a fear-based experience) is necessary.

Military and veteran populations. Subsequent to the research reviewed previously, a large portion of the investigative work conducted on moral injury in military and veteran populations has focused on spirituality-related concerns, spiritual care, and psychological treatment. Spirituality and religious struggles have been found to be strongly mediated in moral injury and therefore indicative of spiritual or pastoral care (Evans et al., 2018; Drescher, 2015; Wortmann et al., 2017; Doehring, 2018; Kopacz et al., 2016; Van Loenen, Körver, Walton & De Vries, 2017). This area is outside the scope of this study and so, the three psychological treatment packages that have been suggested in addressing moral injury will instead be highlighted.

One therapy is a previously developed protocol that continues to be adapted to address moral injury (Acceptance and Commitment Therapy; for a review see Nieuwsma et al., 2015), whereas the other two treatment packages have been specifically developed for moral injury. These two treatments, Adaptive Disclosure and the Impact of Killing (IOK) module will be reviewed for the purposes of this document. Neither treatment is intended to replace evidence-based psychological therapy. Instead they are meant to supplement previous progress and to attend to PMIEs that may otherwise be missed with traditional trauma therapy (Gray et al., 2012, p. 413; Maguen & Burkman, 2013).

Adaptive Disclosure is a brief, six-session manualized treatment protocol that strives to assist active-duty military personnel in coping with life-threat traumas, traumatic loss, and moral injury (Gray et al., 2012, p. 409). It is viewed as crucial to "probe for changes in… self-view, interpersonal relationships, trust in others, and general outlook on life" (Steenkamp et al., 2011, p. 104) to clearly identify the parameters of the PMIE. Techniques such as psychoeducation, cognitive restructuring, imaginal exposure, and "experiential breakouts" (Gray et al., 2012, p. 409) are used to support the client in working through their moral injury. The preliminary

research on Adaptive Disclosure indicates that it is well tolerated by active duty personnel, suited to their lifestyle and viewed as "helpful" (Steenkamp et al., 2011, p. 106; Gray et al., 2012, p. 413).

The second treatment protocol developed to address moral injury is the IOK module. IOK is a six- to eight-session module that addresses perpetration PMIEs for when the client endorses distress resulting from having killed in combat. The module begins with pre-treatment psychometric evaluations and psychoeducation, followed by pertinent elements of cognitive-behavioral therapy (e.g., the meaning of killing, identifying maladaptive cognitions, etc.), operationally defining forgiveness, identifying its barriers, forgiveness letter writing and relapse-prevention training (Maguen & Burkman, 2015). Since discussing killing in combat is a taboo topic in military culture, it is common that veterans undergoing traditional exposure therapy may not be asked directly about these incidents or may not want to answer honestly (Maguen & Burkman, 2013, p. 477). Maguen et al. (2010) discovered that approximately 40% of Operation Iraqi Freedom veterans and 50% of American Vietnam war veterans reported killing and being responsible for the death of another person in combat (p. 88). Therefore, without direct assessment of this prohibited topic, the potential for veterans to leave therapy without addressing their most salient deployment incidents or PMIEs is substantial. Preliminary findings suggest promising results of the effectiveness of IOK within cognitive areas such as self-forgiveness, spirituality, and self-concept as well as a decrease in functional impairment (Maguen & Burkman, 2015).

In 2017, Maguen et al. conducted a pilot study with 33 veteran participants that "experienced a significant improvement in PTSD symptoms" (p. 997) post-IOK and exposure treatment. The participants also reported that IOK was "acceptable and feasible" (p. 997).

Further research on IOK and Adaptive Disclosure, including clinical trials, is ongoing.

Personal perspectives on deployment-related moral injury

As has been highlighted, there remain gaps in the literature on moral injury. One such gap includes the understanding and inclusion of those service members' perspectives which may have been established by way of personal experience with morally injurious events. Vargas, Hanson, Kraus, Drescher & Foy (2013) attempted to address this gap by conducting an a priori qualitative analysis on written statements that had been collected as a part of the larger National Vietnam Veterans Readjustment Study. Their study replicated PMIE themes that had previously been identified through Drescher et al.'s (2011) sample of subject matter experts and further added to the academic literature by providing evidence from Vietnam-era veterans (n = 400) themselves. The themes identified included civilian death/disproportionate violence, betrayal, and within-ranks violence with the civilian death/disproportionate violence PMIE being the most frequently endorsed (Vargas et al., 2013). Possible moral injury symptom clusters were also analyzed in relation to each of the three themes. First, for the civilian death/disproportionate violence PMIE the most common symptom cluster that was endorsed included "spiritual/existential symptoms" (p. 247; e.g., "religion doesn't mean as much to me as it did when I went in."). Second, loss of trust (e.g., "as far as the government goes, I feel like you can't really trust the government to tell you what's going on"), self-deprecation (e.g., "I learned to hate myself"), spiritual/existential concerns, and psychological symptoms (e.g., "it made me aware of human rights that were being misused over there in Vietnam") were all equally endorsed with betrayal PMIEs (p. 246). And third, the PMIE of within rank violence indicated symptoms from the loss of trust cluster most frequently. Social problem symptoms (e.g., "dealing with people") were consistently the least reported symptoms cluster in this narrative analysis study.

More recently, Molendijk (2018) implemented a grounded theory qualitative approach in her collected data from interviewing Dutch veterans (n = 80). She found patterns in the interview data suggesting that value conflicts, feelings of being "morally overwhelmed/detached," and a "senselessness" (p. 4) of the cause were most salient for all veterans. These results relate well to previous findings by reiterating that a sense of dissonance can occur and disrupt a service member's life post-deployment because their pre-deployment moral beliefs and expectations have now become unsettled. Molendijk (2018) also found a pervasive notion of guilt documented by many of her interviewees. These findings add an important aspect to the literature given that the sample was comprised of both combat veterans and those who served solely during peacekeeping missions. This demonstrates that PMIEs can arise from and extend beyond combat experiences.

In another similar qualitative study, Held and colleagues (2018) utilized a narrative thematic analysis for their interviews with American veterans (n = 8). They found five main themes related to their participants' self-identified morally injurious events. These themes included: the timing of the moral violations, contextual factors influencing service members' decision-making, reactions to morally injurious events, search for purpose and meaning, and resolution attempts. Each main theme had subsequent sub-themes; however, the sub-themes were found to not be applicable to all participants. This recent study provides additional investigative evidence regarding the valuable nature of the moral injury concept.

In addition to Vargas et al.'s (2013), Molendijk's (2018), and Held et al.'s (2018) studies in which veterans' experiences have been shared, there have been few other published works from service members themselves that outline their perspectives on moral injury. In general, the personal voice of service members regarding moral injury has been excluded from the

professional literature until relatively recently. The present study aimed to highlight more pronouncedly military members' experiences, attitudes, and beliefs about moral injury and balance them with those views of MHP respondents.

The most notable of these personal experience voices is that of Tyler Boudreau, a former U.S. Marine infantry captain who served in Operation Iraqi Freedom. Boudreau (2011) notes his own complicity in PMIEs by mentioning "…the orders [he] gave, from time to time, to use a heavy hand" when interacting with Iraqi civilians or when he gave the command to snipers to shoot a man "armed only with a shovel." He acknowledges that no "clinician in good conscience [would] diagnose [him] with PTSD for those experiences alone" (p. 747) and yet "[he] felt something inside [him] hurt" (p. 746). Boudreau echoes the professionals' opinions that the moral injury construct is a beneficial addition to the dialogue on deployment experiences and post-deployment mental health. He notes that:

> I'd been shot at and shelled enough to explain away my very turbulent emotions.
> I accepted the [PTSD] diagnosis from [Veterans Affairs]…, and I'm sure my
> condition was in part that, but inwardly I knew the greatest pain I felt was not
> linked to those moments when violence was being directed at me, but when I
> was involved with inflicting it on others. Post-traumatic stress just didn't seem
> to fit. So what could I call this pain? (p. 748)

Boudreau emphasizes two useful aspects to the conceptualization of moral injury. First, PTSD would no longer be the "one-size-fits-all" (p. 749) response to deployment stress. Ideally, this expansion of deployment understanding would lead to military members being able to ask for and receive more specialized services. Second, moral injury "…takes the problem out of the

hands of the mental health profession and the military and attempts to place it where it belongs –

in society, in the community, in the family – precisely where moral questions should be

posed…" He believes that the concept of moral injury can "transform "patients" back into

citizens, and "diagnoses" into dialogue" (p. 750), perhaps alleviating some of the isolation, guilt,

shame and abandonment many veterans feel upon reintegration into society.

Boudreau highlights the potential value of the "small-groups movement" (Mowrer, 1972,

p. 7) for individuals experiencing moral injury. This movement grew from phenomena (e.g.,

technological advances, urbanization) in the 1960s that contributed to a sense of personal and

social disconnection. It refers to the intentional creation of a new primary social group in which

individuals could reconnect and find a sense of personal identity and emotional intimacy.

Mowrer (1972) postulated the idea of mutual-help peer groups called Integrity Groups within the

small-groups movement. Integrity Groups promote social integration, reconciliation and

reconnection "fully and truly" (p. 11) and can be viewed as a synthetic version of Boudreau's

(2011) hypothesis of helping to place moral injury "where it belongs" (p. 750).

Boudreau recognizes the recent acknowledgment of moral injury in mental health, faith,

activist, and military circles. As a veteran who has been given the ear of experts through his

writing, Boudreau advocates for the continued understanding and research into this concept to

further bolster the supports afforded to veterans. "Moral injuries are not about benefits or blame.

They're not about treatment or medication. They're not about disability. They are about our

society and our moral values" (p. 754).

Healthcare professionals' versus patients' attitudes and beliefs regarding healthcare services

Academic literature shows varying levels of discrepancy in the perspectives of healthcare providers and the clientele they serve regarding assorted conditions. This indicates the need for both parties' attitudes and beliefs to be shared, valued, and incorporated into future research endeavors. The majority of provider versus patient perspective studies have been conducted in the field of medicine, a separate yet related field to mental health and therefore were reviewed prior to conducting the present study. To date, no known provider versus patient research related specifically to moral injury has been conducted.

Vogelzang et al. (1997) surveyed cancer patients (n = 419), their primary caregivers (n = 200) and randomly sampled oncologists (n = 197) to assess the perspectives of the role cancer-related fatigue played in chemotherapy and radiotherapy treatments. This study found that 61% of oncologists cited pain as adversely affecting their patients to a greater degree than fatigue, a view shared by only 37% of patient respondents. Merely 19% of patients agreed with the oncologists' views that pain was a greater concern than the fatigue. Instead, the majority of patients (74%) viewed fatigue as a difficult symptom that must be endured as a part of treatment whereas most oncologists (80%) perceived fatigue as a symptom to be treated, and that it was currently undertreated. The inconsistency in these beliefs contributed to 50% of patients reporting never having had a discussion of fatigue-related treatment options with their oncologists. Therefore, patients were unnecessarily suffering through cancer-related fatigue. This study highlights the divergent views oncologists can hold in comparison to cancer patients regarding the most problematic aspect of chemotherapy and radiation therapy.

Williams, Bohac, Hunter, and Cella (2016) updated the Vogelzang et al. (1997) study by surveying cancer patients (n = 550), oncologists (n = 400) and oncology nurses (n = 400). They found similarly discrepant results. 98% of their patient sample reported experiencing fatigue

whereas a considerably smaller portion of the providers (72% of oncologists and 84% of oncology nurses) believed that their patients had this experience. 58% of patients endorsed fatigue as affecting their daily lives more so than pain did as compared to only 29% of oncologists and 25% of oncology nurses. Even more striking, 86% of patients expressed undergoing pain while receiving chemotherapy treatment whereas only 36% of oncologists and 51% of nurses endorsed that their patients experienced any pain associated with treatment. This represents a difference of 50% and 35% respectively. Williams et al. (2016) concluded that even two decades later, professionals "continue to underestimate the prevalence and importance of fatigue and pain for patients with cancer, a finding that may alter the management of treatment-related symptoms" (p. 4361). While being mindful of the importance of not overgeneralizing findings, these two studies serve to underscore the significance of patient's perspectives, attitudes, and beliefs in healthcare treatment. These results from medicine serve as a beginning point for further inquisition into mental health provider and patient attitudes and beliefs.

Ruelaz, Diefenbach, Simon, Lanto, Arterburn and Shekelle (2007) conducted a survey to compare the beliefs and attitudes of primary care physicians and patients regarding effective weight management at a Veteran Affairs Primary Care clinic. 435 patients (incalculable response rate) and 48 physicians (96% rate) completed the survey. They found that "providers and patients differed significantly on many beliefs about weight" and that the two groups "emphasized different barriers to weight management" (p. 518). The providers frequently cited their patients' "lack of self-control" (p. 520) with respect to diet, lack of time to exercise, and society's emphasis on fatty food consumption as the prime factors in weight gain. In comparison, the patients reported feeling blamed by their provider for their excess weight (p. 520). Physicians also noted a desire to assist patients in weight management, whereas patients expressed a

contrasting belief that weight loss should be conducted on one's own without any type of medical or doctor intervention. In conclusion, Ruelaz et al. (2007) noted that "providers need to be aware of the beliefs that their patients hold to improve weight management discussions and interventions in primary care" (p. 518).

Komaric, Bedford and van Driel (2012) added a diverse cultural and linguistic aspect to the literature on patient versus providers' viewpoints. They investigated the "experiences, attitudes and opinions" (p. 322) of chronic medical concerns from immigrants to Australia in comparison to a diverse sample of health care providers (e.g., physicians, nutritionists, audiologists). Australia continues to steadily increase in cultural and language diversity with one in seven Australians being born in a non-English speaking country. This qualitative study conducted five focus groups in the native language of the patient participants (n = 50) and one focus group with health care providers (n = 14) who service immigrant populations. Immigrant populations tend to have a higher risk of developing cardiovascular disease, type II diabetes mellitus, renal disease, and chronic respiratory disease, despite the 'healthy migrant effect' of undergoing rigorous pre-immigration health checks (Australian Institute of Health and Welfare, 2008).

It was found that the samples indicated generally positive professional interactions with one another. All groups also simultaneously recognized the barriers presented by cultural differences (i.e., language difficulties, health beliefs, lack of culturally competent health providers), limited appropriate educational resources, health literacy, and low socio-economic status to receiving/providing adequate health services (p. 334).

Of particular importance to this proposed project, Komaric, Bedford and van Driel's (2012) Arabic- and Sudanese-speaking participants noted the criticality of mental health services

and the barriers they perceived in attaining assistance. Both patient samples identified that wars

in their home countries have significantly impacted their fellow citizens. They noted

experiencing "depression, stress, anger," "loneliness, dislocation, and isolation," and "chronic

grief" (p. 327) after immigration. They expressed worry over the incongruence between their

pre-immigration anticipation of "good opportunities" (p. 327) that did not come to fruition. The

Sudanese participants were especially concerned about the toll that war and torture has had on

their youth as displayed through high levels of adolescent frustration and school behavioral

issues.

The providers in this study also indicated a concern about the effects of war on their

patients. They noted that previous victimization and torture experienced in one's home country

exacerbated assimilation issues into mainstream Australian culture. Furthermore, they endorsed

feeling unprepared to address their patients' specific, war-related concerns. They reported a lack

of adequate training, appropriate referral agencies, and accurate language interpretation services

complicate their health evaluations. One provider described frustrations of trying to assess for

sexual assault concerns and being "limited" (p. 327) with phone interpretive services who

typically provide an interpreter "…who's male [and] asking [young, female patients] big

questions" (p. 327).

While there are similarities in the areas of concerns discussed by the providers and

patients in this study, it is imperative to highlight that the specified concerns of both groups were

not identical. Both groups acknowledged trepidation over previous war exposure with patients

indicating a specific concern over how trauma symptoms impeded their ability to assimilate and

concern over their loved ones. In contrast, the providers emphasized training limitations,

language barriers and evaluation frustrations. In sum, the patients noted daily functioning

concerns whereas providers identified logistical issues. These "two sides of the coin" (p. 322) underscore the necessity of evaluating both patients' and providers' perspectives, attitudes, and beliefs regarding a collective topic since they may be diverse.

Purpose of study

The purpose of this study was to provide an initial quantitative and qualitative comparison between MHP respondents' attitudes, beliefs, and perspectives regarding moral injury with those of military members and veterans. No prior published work has directly compared professionals' views with service members' perspectives as they relate to moral injury. Drescher et al. (2011) found that culturally-competent military health clinicians (e.g., psychologists, chaplains) unanimously endorsed the need for the moral injury construct to bolster resources for those returning from military deployments. This study aimed to support this previous finding and expand upon it by including a survey of currently and previously serving military members who may have been personally exposed to PMIEs.

This study gauged the initial knowledge, beliefs, and perceptions of moral injury from both samples. It highlights select moral injury and deployment factors from service personnel and compared their views on moral injury from trained MHP respondents whom also possess military cultural competency. It hypothesized that the MHP sample would report more initial familiarity with the moral injury concept than the military member group and that the majority of both samples would endorse that this is a relevant concept to be further explored as it is applied to military-related stress.

CHAPTER III

METHOD

Sampled population

Two types of adult participants were targeted for recruitment for this study. The first were those who had served in the military at any point in their life. The second sample group was comprised of those working as an MHP. These care providers had some type of formal education (e.g., advanced degree, certificate, etc.) in a mental health discipline (e.g., psychiatry, social work, psychology, etc.) in addition to either informal (e.g., family member's service, etc.) or structured knowledge (e.g., participation in a workshop, etc.) of military culture. Personal service was an exclusion criterion for the MHP sample group as these individuals were instead directed to participate in the service member sample.

All participants were able to read and understand the study's English language informed consent and survey questions and completed the materials in a web-based format. Participants were recruited without regard to race, gender, socio-economic status, nationality, ethnicity, military service-related variables (e.g., branch, rank, number of deployments, etc.), or other diversity statuses, although minors were not included. This study aimed to be inclusive of all current and former service members.

As an exploratory study seeking preliminary insight on the attitudes and beliefs about the moral injury concept, this study applied a non-probability sampling method, generating a sample comprised of self-selected participants. This approach was chosen due to the desire to recruit without geographical or country restrictions, as well as for budgetary and time limitations. Given the nature of self-selected samples, it is likely that not every study-eligible service member or MHP was made aware of or had the opportunity to be included in the sample.

Furthermore, self-selected participants may have different characteristics than this population of interest members who did not participate in this study (Eysenbach & Wyatt, 2002; Sackmary, 1998). These respondents may be more likely to participate in research which interests them or addressed a topic by which they are personally impacted.

Participants were educated about the opportunity to participate in the proposed study through conventional research study recruitment methods such as brief online recruitment announcements (e.g., social media sites), email invitations through local and national organizations (e.g., American Psychological Association Division 19 Listserv), and through the snowballing technique. The student investigator recruited previously established professional contacts (both MHP and military personnel) to complete the survey and encouraged them to forward the study on to their contacts who they felt met the inclusion criteria. Financial or any other type of compensation was not available nor provided for participation in this research study.

Setting

This study took place in a web-based format. Participants completed the survey in a personally convenient setting that allowed them access to a computer and a reliable Internet connection.

Design

This study utilized an anonymous online survey methodology. This methodology attempted to account for the nature of the military culture and its aversion to public self-disclosure of mental health concerns (Church, 2009). This aversion is vicariously learned and can become a barrier for military member and veteran respondents, possibly preventing them from engaging in resources from which they could learn about the advancements in moral injury.

Coupling this with the military cultural taboo of sharing difficult personal actions or inactions that may reflect a PMIE (e.g., killing in combat), the anonymity as created through the present, Web-based survey offered an unfiltered perspective that could not be attained through focus groups or personal interviews.

This survey consisted of multiple-choice questions, true-or-false, "check all that apply" and open-ended text response questions. To address possible non-responding to the two psychometric measures in order to maintain validity, forced-choice answers were presented. This means that before continuing with the survey, a response to the current item was required. All demographic questions and non-psychometric measure questions were not forced-choice answers and therefore, could be skipped at the discretion of the participant. For all questions that one may choose to not answer, an option of "I choose not to provide a response" was one of the answers that could be chosen.

The format of the survey administered to service member participants included general demographic questions, military service-related demographic questions, moral development questions (Appendix H), the Combat Exposure Scale (CES; Appendix E), the Moral Injury Events Scale (MIES; Appendix F) and moral injury perspective questions (Appendix L). The format of the survey administered to MHP participants included general demographic questions and moral injury questions (Appendix I). The surveys administered to each sample group are identical except for the military-related demographic questions, CES and the MIES being administered only to the service member sample. All participants received the same introductory information on moral injury including a working definition and brief background information (Appendix G). Survey measures and questions were presented in an identical format to each

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participant in the same sample group to promote reliability.

Materials

The Qualtrics web-based survey was comprised of demographic questions, the CES, MIES and moral injury-related questions for each of the sample groups. Some of the moral injury-related questions were adapted from Drescher et al.'s (2011) study of mental health providers. The survey assessed the current perspective of military members and veterans on the construct of moral injury and in order to compare it with the perspective of MHP. Military demographics and combat experiences were also evaluated to explore possible relationships between diverse variables and knowledge of moral injury, as well as to offer a more informative background of the service member respondents. The deployment experiences of the participants were assessed through the CES and their experiences with PMIEs were reviewed through the MIES. The CES has been similarly utilized in web-based formats in other studies (Rudd, Goulding, Bryan, 2011; Barry, Whiteman & MacDermid Wadsworth, 2012). Due to its recent development, the electronic format of the MIES appears to only have been administered in a small amount of previously reported studies (Nash, Marino Carper, Mills, Au, Goldsmith & Litz, 2013; Bryan et al., 2016). The sample of MHP were not administered the CES or the MIES.

Combat exposure scale (CES). The CES is a seven-item measure used to assess the deployment and combat experiences of current and former military members. The questions range in experiences from engagement with the enemy to the loss of comrades. The CES was found to be a valid and reliable measure in the assessment of differing severity levels of combat exposure and is commonly implemented in research studies (Keane et al., 1989; Lund, Foy, Sipprelle & Strachan, 1984).

Initially evaluated through the use of a coefficient of reproducibility to measure the fit

between ideal responses and those actually collected, the CES was deemed to be reliable (.93; Lund, Foy, Sipprelle & Strachan, 1984). Since this initial report, the CES has been widely used given its high degree of internal reliability as measured by Cronbach's coefficient alpha (.85) and an average item-remainder total score (.75; Keane et al., 1989). For its test-retest reliability, a significant result of $r(29) = .97$, p < .0001 was found.

The construct validity for the CES was established by Lund et al. (1984) and the validity coefficient was 0.76; well above the accepted range (.60). Construct validity was further confirmed in a later study comparing the CES to another popular combat scale ($r(20) = .86$, p < .001; Foy, Sipprelle, Rueger & Carroll, 1984). For more information on the reliability and validity of the CES see Lund et al. (1984) and Foy et al. (1984).

Moral injury events scale (MIES). The MIES is a nine-item measure used to assess a service members' experience of pMIE after deployment. The questions range from the perception of personal engagement in morally questionable actions, witnessing the engagement of others in these incidents, to feelings of betrayal by authority.

The MIES's modified nine-item scale shows exceptional internal reliability as measured with Cronbach's alpha (.90; Nash et al., 2013, p. 648). The average item-correlation for all nine questions was measured at 0.65 which demonstrates that each item successfully measured the suggested underlying global construct of moral injury (Nash et al., 2013; Raducha, 2016). For internal consistency, an exploratory factor analysis was deemed appropriate through the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (.85) and Bartlett's Test of Sphericity ($x^2 =$ 3550.55, p < 0.001). Two latent factors were identified for the scale. Factor one was labeled "perceived transgressions" (Nash et al., 2013, p. 647) and was comprised of items one through six. This factor had a coefficient alpha of .89 (p. 649). Factor two, "perceived betrayal," (p. 647)

included items seven through nine and had a coefficient alpha of .82 (p. 649). These coefficients

suggest strong internal consistency. Bryan et al. (2016) further endorsed a third factor which

divided the perceived transgressions factor into two, "committed by others" and "committed by

self" (p. 564).

Construct validity for the MIES was determined through Spearman's coefficient (Nash et

al., 2013). Discriminant validity was suggested with the Combat Experiences Scale of the

Deployment Risk and Resilience Inventory ($r = .08$), the Revised Beck Depression Inventory (r

$= .40$), the Beck Anxiety Inventory ($r = .28$), negative affectivity ($r = .29$), and the Posttraumatic

Stress Disorder Checklist ($r = .28$). Each measure was reviewed and positively correlated with

the MIES. Higher MIES scores were also associated with lower scores on the Interpersonal

Support Evaluation List ($r = -.29$), positive affectivity ($r = -.15$), and the Horizontal Cohesion

Subscale ($r = -.24$) suggesting excellent convergent validity (Nash et al., 2013, p. 650). For

further details on the reliability and validity of the MIES see Nash et al. (2013) and Bryan et al.

(2016).

Each MIES question is rated on a scale of one to six with one indicating strong

disagreement and six meaning strong agreement with that particular statement. This Likert scale

does not allow for a neutral answer. The MIES is scored by reversing all items and adding the

scores of each question together (Raducha, 2016, p. 25). The higher the total score, the greater

the intensity of events experienced. For the purposes of this study, a score of nine to 15 indicated

minimal exposure to potentially morally injurious events, 16 to 28 reflected mild exposure, 29 to

40 designated moderate exposure, and 41 to 54 indicated severe exposure. These scores are

based off of the sample means and standard deviations obtained in this study, a common practice

with interpretation being to utilize one standard deviation above and below the mean to

demonstrate the middle range (Jacobson & Truax, 1991).

It should be noted that for the purposes of this study the last question on the MIES was slightly adjusted to reflect a more encompassing question regarding nationality. The original question of "I feel betrayed by others outside the U.S. military who I once trusted" was modified to "I feel betrayed by others outside the military who I once trusted." This study made use of social media and large international organization listservs for recruitment purposes and so non-U.S. military members and veterans responded as well. This minor wording modification ensured the MIES was appropriate for all participants.

Data collection and measurement

Data for this project was collected via the web-based survey tool Qualtrics and was anonymous and kept confidential. The student investigator has direct access to the data for management and analyses purposes. A self-generated username and password was required to access and download data from the online server. No one was given access to this username and password except the student investigator. Qualtrics web-based research program has safeguards in place to protect data and maintain information security.

The evaluation of the various psychometric measures occurred according to their respective scoring protocols. These protocols were manually entered into the Qualtrics system to allow for automatic and immediate scoring results.

Procedure

Participants expressed their interest in the study by opening the Qualtrics web-based survey link that immediately directed them to the electronic informed consent form (Appendix B). Before accessing the survey, individuals read through and agreed to the consent document. They then indicated their agreement to the consent document by clicking the "next" button on

the Qualtrics system. If they decided to disengage from the study, they simply exited the webpage and no negative implications of declining to participate were rendered. After agreeing to the informed consent, participants were given a list of recommended referral agencies had they wished to seek psychological support.

Participants were then directed to complete the survey. The survey could only be completed once and took approximately 30 minutes to finish. Each participant was asked two introductory questions (i.e., What is your current age? Have you ever given military service?) to determine if they were appropriate participants. Respondents younger than 18 years old were discontinued from participation in the survey. Those who had not given military service were then asked if they have formal knowledge or training in working with military members in a mental health capacity. If they did not, they were discontinued from the survey. No personally identifiable information was collected from the participants as they completed the anonymous survey. Participants had a computer-generated identification number assigned them to connect their responses together, but no personally identifiable information was requested or required at any point in this study.

Participants advanced through the respective survey at their own pace. All surveys administered to each sample group were identical in layout including the order in which the questions are asked. The demographic questions preceded the psychometric measures for the service member respondents, with the CES following, then the MIES and lastly the survey-specific moral injury perception questions. For MHP, the layout of the survey was the same without the CES and MIES being administered.

After completing the survey questions, all participants were presented with a question that indicated if they wished to submit their responses for analysis. They were required to select

"yes" to have their responses included. If they selected "no" or exited the survey, their responses were not included in the data analysis. Participants were again provided with a list of agencies for further psychosocial support if they wished to make use of them. Lastly, a page indicating they had completed their participation was displayed. At this point, the participants had fully concluded their participation in this study. After survey completion, the respondents were not contacted again by the investigators for the purposes of this study.

Plan for analysis

Quantitative analyses. This study compared military members and MHPs' attitudes and beliefs of how important they viewed the construct of moral injury to the discourse on deployment and military experiences. The quantitative analysis plan was modeled after similar studies comparing health providers' perspectives on various health-related issues with those of service members' (Gertz, Frank & Blixen, 2011; Ruelaz, Diefenbach, Simon, Lanto, Arterburn & Shekelle, 2007). Univariate analyses, such as proportions and frequencies were used to offer descriptive characteristics of the samples. Bivariate statistics including Student's independent samples t-tests, Pearson's Chi-squared tests for two independent samples, and Kolmogrov-Smirnov Goodness-of-Fit Test assisted in differentiating the relationships between the sample groups and their perceived spiritual and religious impact on their moral development, familiarity with the moral injury construct and responses to hypothetical pMIE.

The statistical program SAS® StatView® version 5.0.1 for Windows was used for all bivariate analyses. When possible, all statistical analyses were first generated in Microsoft Excel® Version 16.14.1 for Mac and then recalculated and cross referenced in StatView®. Descriptive analyses were all conducted in Excel®.

Qualitative analyses. In addition to the quantitative analyses, this study also included a qualitative component similar to Molendijk's (2018) and Held et al.'s (2018) recent works with regard to open-ended questions. Qualitative research reporting standards within the American Psychological Association (APA) and the field of psychology more broadly have historically been difficult to determine which has led to poor reporting of qualitative analyses (Levitt et al., 2018; Braun & Clarke, 2006; Boyatzis, 1998) This study's qualitative analyses reflect the APA's most recent reporting standards (Levitt et al., 2018).

The student investigator on this study had completed all required doctoral-level classwork for a Ph.D. in Clinical Psychology prior to beginning this project. She has a history of researching and providing clinical services to military members, veterans and military families. As such, her personal biases coming to the qualitative data analyses are that of someone with mental health training, professional military cultural knowledge, and a vested interest in armed forces communities. Additionally, she subscribes to her own personal set of moral beliefs which may or may not be similar to that of the study's participants. As with all of the participants, her own moral beliefs are largely indistinguishable from her interpretations and therefore can be expected to have influenced her analyses. No other coders besides the student investigator were included in these preliminary qualitative analyses.

The thematic analyses were conducted on illustrative findings from the qualitative dimensions from both the military and the MHP samples. This qualitative analysis probe will illustrate interpretations by military personnel and MHP respondents as to their perspectives on moral injury. Each individual incident of the themes was evaluated as opposed to developing themes by way of different participants or entire data set (Braun & Clarke, 2006). The themes were also not generated a priori. Instead, they were generated through the "inductive thematic

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analysis" (p. 83) approach which better allows for the themes to come from the available data as opposed to deducing themes from a predetermined theory (Braun & Clarke, 2006; Levitt et al., 2018). For transparency purposes, however, it is important to reiterate Braun and Clarke's (2006) sentiment that "researchers cannot free themselves of their theoretical and epistemological commitments" (p. 84). Therefore, the student investigator's familiarity with the moral injury academic literature likely influenced her thematic analyses. Lastly, this study's qualitative analyses worked at the "latent level" (Braun & Clarke, 2006, p. 84) of the datum which examines underlying ideas, assumptions, and conceptualizations as opposed to analyzing statements semantically.

This study's quantitative and qualitative results are used to fulfill the Doctor of Philosophy dissertation requirements for the student investigator's Clinical Psychology doctoral degree program. The findings will also be disseminated through presentations at professional conferences and potential publications in academic journals. In each case of dissemination, all published information and data will remain anonymous.

CHAPTER IV

RESULTS

Sample demographic characteristics

This study's research focus concerned comparing the attitudes and beliefs of MHP and military members regarding the concept of moral injury. To do so, both quantitative and qualitative data were collected, and thematic, descriptive and univariate analyses were employed. Student's t-tests and Chi-square tests for two independent samples were utilized most frequently. As completed in similar studies, due to the large volume of data generated through this survey in cases where the resulting data would not be disturbed or skewed through modification (e.g., race/ethnicity for military sample, total annual income for both samples), the response categorizes were amalgamated for ease of reporting (Ruelaz et al., 2007). Result categories may therefore differ slightly from survey response categories.

A total of 146 respondents accessed the web-based survey from February to April 2018. 137 respondents, 75.9% military and veteran participants (n = 104) and 24.0% MHP (n = 33), completed the survey to a useable degree for descriptive analyses purposes, generating an overall response rate of 93.8%. A summary of the two main sample groups' demographics including gender, age, ethnicity, annual household income, and highest education level completed are displayed in Table 1.

Table 1.

Summary of Total Sample Characteristics

		Military		MHP	
Demographics		n	%	n	%
Gender					
	Female	32	**30.7%**	27	**81.8%**

		Military		MHP	
Demographics		n	%	n	%
Gender					
	Male	71	**68.3%**	5	**15.2%**
	Transgender	0	**0.0%**	0	**0.0%**
	Other	0	**0.0%**	0	**0.0%**
	Chose not to provide a response	1	**1.0%**	1	**3.0%**
Age					
	18 - 33	24	**23.1%**	11	**33.3%**
	34 - 41	36	**34.6%**	8	**24.2%**
	42 - 49	19	**18.3%**	4	**12.1%**
	50 - 57	14	**13.5%**	1	**3.0%**
	58+	11	**10.6%**	9	**27.3%**
Ethnicity					
	Hispanic, Latinx or Spanish origin	5	**4.8%**	0	**0.0%**
	Multiracial	3	**2.9%**	0	**0.0%**
	Indigenous or Native American	4	**3.8%**	0	**0.0%**
	White or European descent	90	**86.5%**	31	**93.9%**
	Other ethnicities	3	**2.9%**	0	**0.0%**
	Chose not to provide a response	1	**1.0%**	2	**6.1%**
Annual Household Income					
	$0 - $40,000	12	**11.5%**	3	**9.1%**
	$41,000 - $80,000	32	**30.8%**	7	**21.2%**
	$81,000 - $120,000	28	**26.9%**	13	**39.4%**

Table 1 - continued

Demographics		Military		MHP	
		n	%	n	%
	$120,001 - $160,000	11	**10.6%**	4	**12.1%**
	$160,001 - $200,000	9	**8.7%**	1	**3.0%**
	$200,001+	9	**8.7%**	1	**3.0%**
	Chose not to provide a response	3	**2.9%**	4	**12.1%**
Highest level of completed education					
	High school or GED	4	**3.8%**	0	**0.0%**
	Some college/university classes	23	**22.1%**	0	**0.0%**

Demographics		Military		MHP	
		n	%	n	%
Highest level of completed education					
	Bachelor's degree	29	**27.9%**	0	**0.0%**
	Master's degree	34	**32.7%**	21	**63.6%**
	Ph.D./Psy.D./M.D. or equivalent	14	**13.5%**	11	**33.3%**
	Chose not to provide a response	0	**0.0%**	1	**3.0%**

Within the total military sample, a sub-set of respondents (37.5%, n = 39) identified as having both military and mental health training (MMHT) in their background. When applicable, therefore, some analyses were conducted to distinguish results between the total military sample and the MMHT sub-group. The demographic responses are similar across both the military sample and the MMHT sub-group with minor differences occurring on the variables of highest education level obtained and annual household income level. A summary of the demographic comparison between these two groups is presented in Table 2.

Table 2.

Summary of Total Military Sample Characteristics as Compared with Military and Mental

Health Training (MMHT) Sub-Sample

		Military		MMHT	
Demographics		n	**%**	n	**%**
Gender					
	Female	15	**23.1%**	17	**43.6%**
	Male	49	**75.4%**	22	**56.4%**
	Transgender	0	**0.0%**	0	**0.0%**
	Other	0	**0.0%**	0	**0.0%**
	Chose not to provide a response	1	**1.5%**	0	**0.0%**
Age					
	18 - 33	16	**24.6%**	8	**20.5%**
	34 - 41	18	**27.7%**	18	**46.2%**
		Military		MHP	
Demographics		n	**%**	n	**%**
Age					
	42 - 49	13	**20.0%**	6	**15.4%**
	50 - 57	12	**18.5%**	3	**7.7%**
	58+	6	**9.2%**	4	**10.3%**
Ethnicity					
	Hispanic, Latinx or Spanish origin	2	**3.1%**	3	**7.7%**
	Multiracial	2	**3.1%**	1	**2.6%**
	Indigenous or Native American	2	**3.1%**	2	**5.1%**
	White or European descent	56	**86.2%**	32	**82.1%**
	Other ethnicities	2	**3.1%**	1	**2.6%**
	Chose not to provide a response	1	**1.5%**	0	**0.0%**
Annual Household Income					
	$0 - $40,000	6	**9.2%**	6	**15.4%**
	$41,000 - $80,000	23	**35.4%**	9	**23.1%**
	$81,000 - $120,000	16	**24.6%**	12	**30.8%**
	$120,001 - $160,000	9	**13.8%**	2	**5.1%**
	$160,001 - $200,000	5	**7.7%**	4	**10.3%**

Table 2 - continued

	$200,001+	4	**6.2%**	5	**12.8%**
	Chose not to provide a response	2	**3.1%**	1	**2.6%**
Highest level of completed education					
	High school or GED	3	**4.6%**	1	**2.6%**
	Some college/university classes	22	**33.8%**	1	**2.6%**
	Bachelor's degree	19	**29.2%**	10	**25.6%**
	Master's degree	18	**27.7%**	16	**41.0%**
	Ph.D./Psy.D./M.D. or equivalent	3	**4.6%**	11	**28.2%**
Profession					
	Counselor	.	.	9	**23.1%**
	Peer Support Worker	.	.	1	**2.6%**
	Psychiatric Nurse	.	.	3	**7.7%**
	Psychiatrist	.	.	2	**5.1%**
	Psychologist	.	.	11	**28.2%**
	Social Worker	.	.	10	**25.6%**
	Other professional	.	.	3	**7.7%**

The majority of the MHP sample identified as female (81.8%, n = 27), between the ages of 18 - 33 (33.3%, n = 11) and were White or of European descent (93.9%, n = 31). Their average annual income was between $81,001 - $120,000 (39.4%, n = 13) and most held a master's degree (63.6%, n = 21). They reported currently spending the majority of their clinical time providing mental health services to the military or veteran population (54.5%; n = 18), specifically within the capacity of trauma therapy services (66.7%; n = 22). Table 3 provides additional demographic information from the MHP sample.

Table 3.

Summary of Mental Health Professional-related Demographic Characteristics

		MHP	
Professional-related Demographics		n	**%**
Military-related Professional Experience[a]			
	Current spouse/partner/close loved one to a service member/veteran	15	.
	Former spouse/partner/close loved one to a service member/veteran	8	.
	Attended a 1-day workshop on military mental health	11	.
	Attended a 2 or more-day workshop on military mental health	13	.
	Attended an online training workshop on military mental health	10	.
	Read a book(s) on military mental health	20	.
	Previously provided clinical services to military members or veterans	15	.
	Currently provide clinical services to military members or veterans	23	.
	Other	5	.
	Chose not to provide a response	0	.

		MHP	
Professional-related Demographics		n	**%**
51% of work time spent providing services to military/veterans			
	Yes	18	**54.5%**
	No	9	**27.3%**
	I currently provide services to military and veteran individuals/clients but spend less than half my work hours doing so	6	**18.2%**

Table 3 - continued

	Chose not to provide a response	0	**0.0%**
Currently spend the majority of your work hours providing trauma therapy services to clients?			
	Yes	12	**36.4%**
	No	11	**33.3%**
	I currently provide trauma therapy services but spend less than half my work hours doing so	10	**30.3%**
	Chose not to provide a response	0	**0.0%**

[a] Respondents allowed to select all that apply; total may equal more than 100%

In comparison to the MHP sample, the majority of the military group identified as male (68.2%, n = 71), between the ages of 34 - 41 (34.6%, n = 36), and were White or of European descent (86.5%, n = 90). They reported an average annual income of between $41,000 – $80,000 (30.8%, n = 32) and mostly held a master's degree (32.7%, n = 34). The majority of this sample also reported serving in the United States (60.6%; n = 63) Army (63.5%; n = 66) in an active duty role (70.1%; n = 73) as an enlisted member (56.7%; n = 59) in a health or protection (i.e., medical and military police occupations; 28.0%; n = 30) occupation. The military participants most frequently endorsed having served between zero to ten years ago (48.1%; n = 50) and completing at least one international deployment (86.5%; n =90). Deployments typically occurred in Asia (n = 103), with Iraq (n = 38) and Afghanistan (n = 33) tours being the most frequently reported. The majority of deployments for this sample took place between 2000 and 2010 (n = 105). The total number of deployments was not specifically asked in this survey, however many respondents indicated participating in multiple deployments. In comparison to the U.S. Department of Defense (2016; Council on Foreign Relations, 2018) statistics, this study's military sample is generally older with a higher education level than the majority of American

active duty members. This sample is representative however, by way of service branch, gender and racial/ethnic group identification. Table 4 presents a summary of the military-related demographic information gathered.

Table 4.

Summary of Military Service-related Demographic Characteristics for Military Sample

	Military	
Service-related Demographics	n	**%**
Country Served		
United States of America	63	**60.6%**
Commonwealth countries	28	**26.9%**
Mexico	1	**1.0%**
Chose not to provide a response	12	**11.5%**
Branch of Service		
Air Force	10	**9.6%**
Army	66	**63.5%**
Marines	8	**7.7%**
National Guard	2	**1.9%**
Navy	13	**12.5%**
Other	0	**0.0%**
Chose not to provide a response	5	**4.8%**
Capacity Served In		
Active Duty	73	**70.1%**
Reserve	6	**5.8%**
Both Active Duty and Reserve	21	**20.2%**
Other	0	**0.0%**
Chose not to provide a response	4	**3.8%**
	Military	
Service-related Demographic	n	**%**
Rank Level		
Enlisted Member	59	**56.7%**
Warrant Officer	4	**3.8%**
Officer	35	**33.7%**

Table 4 - continued

	Chose not to provide a response	6	**5.8%**
Primary Occupation or Specialty			
	Combat Specialties	28	**26.9%**
	Machine and Electronic Maintenance	4	**3.8%**
	Science and Technology Information	11	**10.6%**
	Health and Protective Services	30	**28.8%**
	Transportation and Supply Services	4	**3.8%**
	No primary occupation	5	**4.8%**
	Other	17	**16.3%**
	Chose not to provide a response	5	**4.8%**
Years since service[a]			
	Currently Serving	22	**21.2%**
	0 - 10 years	50	**48.1%**
	11 - 20 years	18	**17.3%**
	21+ years	9	**8.7%**
	Chose not to provide a response	5	**4.8%**
International Deployment			
	Yes	90	**86.5%**
	No	9	**8.7%**
	Chose not to provide a response	5	**4.8%**
Location of Deployments [b]			
	Africa	7	.
	Asia	103	.
	Australia (Oceania)	1	.
	Europe	28	.
	North America	6	.
	South America	1	.
	Chose not to provide a complete response	16	.

		Military	
Service-related Demographics		n	**%**
Deployment Years[b]			
	1968 - 1989	7	.

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Table 4 - continued

1990 - 1999	26	.
2000 - 2010	105	.
2011 - 2017	29	.
Chose not to provide a complete response	20	.

[a] Calculated from the end of 2017
[b] Multiple deployments were included, total may be larger than n

Additional information regarding participation in 'resiliency training' (e.g.,

Comprehensive Soldier and Family Fitness; Deckplate Leader Operational Stress Control) and

mental health treatment was collected from the military sample. The majority of service

members reported not participating in any type of resiliency training (42.3%; n = 44). The

minority who did endorse participating, 60% (n = 40) reported it as helpful. The majority of the

military sample also endorsed engaging in service-related mental health treatment (54.8%; n =

57) with trauma-related issues or PTSD stated as their primary concern (50.8%; n = 30). For

those respondents who attended psychological services, the majority (47.5%; n = 28) found the

services "somewhat helpful." Table 5 indicates these psychological service-related responses.

Table 5.

Summary of the Military Sample's Psychological Service Utilization Responses

	Total Military	
Question	n	**%**
Have you ever received psychological therapy?		
Yes	57	**54.8%**
No	39	**37.5%**
Chose not to provide a response	8	**7.7%**
What was the main focus of therapy?		
Alcohol or substance use	0	**0.0%**
	Military	
Question	n	**%**
What was the main focus of therapy?		

Table 5 - continued

	Depression	16	**27.1%**
	Marital, family or relationship concerns	6	**10.2%**
	Traumatic events/PTSD	30	**50.8%**
	Other	5	**8.5%**
	Chose not to provide a response	2	**3.4%**
Rate how helpful therapy was			
	Not at all helpful	12	**20.3%**
	Somewhat helpful	28	**47.5%**
	Very helpful	19	**32.2%**
	Not applicable	0	**0.0%**
	Chose not to provide a response	0	**0.0%**

Combat exposure scale (CES) results

The CES was administered only to those participants in the military sample. The total mean CES score across this sample was 11.4 (SD = 10.5, n = 96) indicating a light to moderate level of combat exposure with a score range of zero to 39 (light to heavy combat exposure; U.S. Department of Veterans Affairs, 2015). As previously determined, moral injury has a moderate positive associated with combat exposure (Wisco et al., 2017; Nash et al., 2013). Therefore, identifying combat exposure ranges can assist in determining if the appropriate environment for some PMIE types were experienced by participants, as well as for generating an informative picture of the respondents.

The CES was evaluated across the assorted personal demographic variables including gender, age, ethnicity, annual household income and highest education level obtained. All variables demonstrated comparable results falling within the light combat exposure and the light to moderate combat exposure ranges for the entire military sample (M score range = 5 to 15.5).

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These findings were also reflected in the majority of the military-related demographic variables including country of service, service branch, service capacity, rank, military occupation and total years since service. The exceptions to these exposure ranges came from the Warrant Officer respondents (M = 19.3, SD = 2.5), members employed in combat specialties (i.e., Artillery, Armored, Aviation, Infantry and Special Forces; M = 17.5, SD = 11.6) and in transportation and supply services (M = 20.5, SD = 14.8). Members endorsing these three variables reported experiencing medium levels of combat exposure. See Table 6 for a summary of the total military samples CES results.

Table 6.

Combat Exposure Scale and Moral Injury Events Scale Results for Total Military Sample

		CES		MIES	
Demographics		**Score**	Interpretation	**Score**	Interpretation
Gender					
	Female	**7**	Light	**32.4**	Moderate
	Male	**13**	Light - moderate	**26.7**	Mild
Age					
	18 - 33	**12.5**	Light - moderate	**29**	Moderate
	34 - 41	**11.4**	Light - moderate	**28.1**	Mild
	42 - 49	**11.4**	Light - moderate	**25.7**	Mild
	50 - 57	**11.8**	Light - moderate	**28.2**	Mild
	58+	**8**	Light	**32.1**	Moderate
Ethnicity					
	Hispanic, Latinx or Spanish origin	**7.5**	Light	**27.5**	Mild
	Multiracial	**5**	Light	**26.5**	Mild
	Indigenous or Native American	**15.3**	Light - moderate	**49.3**	Severe
	White or European descent	**11.6**	Light - moderate	**27.7**	Mild
	Other ethnicities	**8**	Light	**28**	Mild

Table 6 - continued

		CES		MIES	
Demographics		**Score**	Interpretation	**Score**	Interpretation
Annual Household Income	$0 - $40,000	**11.6**	Light - moderate	**32.3**	Moderate
	$41,000 - $80,000	**14.9**	Light - moderate	**29.4**	Moderate
	$81,000 - $120,000	**8.9**	Light	**28.9**	Mild
	$120,001 - $160,000	**10.1**	Light - moderate	**24.3**	Mild
	$160,001 - $200,000	**7.9**	Light	**21.4**	Mild
	$200,001+	**11.2**	Light - moderate	**30.1**	Moderate
Highest Education Level	High school or GED	**12.3**	Light - moderate	**27.5**	Mild
	Some university classes	**15.5**	Light - moderate	**32.4**	Moderate
	Bachelor's degree	**9.3**	Light - moderate	**28.1**	Mild
	Master's degree	**12**	Light - moderate	**28.6**	Mild
	Ph.D./Psy.D./M.D. or equivalent	**7.2**	Light	**22.2**	Mild

Military-Related Demographics					
Country Served	USA	**11.8**	Light - Moderate	**29.8**	Moderate
	Commonwealth Countries	**10.25**	Light - Moderate	**25.7**	Mild
Branch of Service	Air Force	**9.3**	Light - Moderate	**33.6**	Moderate
	Army	**12.9**	Light - Moderate	**27.1**	Mild
	Marines	**14.4**	Light - Moderate	**38**	Moderate
	National Guard	**0**	Light	**21.5**	Mild
	Navy	**5.8**	Light	**25.5**	Mild
Service Capacity	Active Duty	**11.5**	Light - Moderate	**28.8**	Mild
	Reserve	**7**	Light	**26.8**	Mild
	Both	**12**	Light - Moderate	**27.8**	Mild
Rank Level	Enlisted Member	**14.2**	Light - Moderate	**31.8**	Moderate
	Warrant Officer	**19.3**	Moderate	**23**	Mild
	Officer	**6.4**	Light	**22.9**	Mild
Occupation	Combat Specialties	**17.5**	Moderate	**26.4**	Mild

Table 6 - continued

	Machine & Electronic Maintenance	7.5	Light	23	Mild

Military-related Demographics					
Occupation	Science & Technology Information	14.6	Light - Moderate	27.6	Mild
	Health & Protective Services	6.1	Light	29.4	Moderate
	Transportation & Supply Services	20.5	Moderate	38	Moderate
	No primary occupation	9.5	Light - Moderate	25.8	Mild
	Other	7.9	Light	29.8	Moderate
Years Since Service	Currently Serving	9.4	Light - Moderate	21.7	Mild
	0 - 10 years	13.3	Light - Moderate	32.3	Moderate
	11 - 20 years	11.2	Light - Moderate	25.9	Mild
	21+ years	5.7	Light	28	Mild

The total mean CES score across the MMHT sample was 8.9 (SD = 8.8, n = 38)
indicating a light level of combat exposure in comparison to the remaining military sample's
CES mean of 13.0 (SD = 11.2, n = 58) within the light to moderate exposure range. The MMHT
sub-sample indicated similar findings with all personal (M score range = 2 to 18.3) and military-
related demographic variables (M score range = 0 to 15.4) indicating light or light to moderate
combat exposure ranges. The one group that endorsed moderate levels of combat exposure was
those individuals employed in the transportation and supply services military occupation (M =
22, n = 1), although given the sample sub-sample size this result should be interpreted
cautiously.

With the MMHT sub-sample responses removed from the total military sample, the
remaining service members indicated mostly comparable combat exposure levels to the MMHT
respondents on all personal (M score range = 6 to 22) and military-related demographic (M score
range = 6 to 23) variables. Those respondents identifying as Hispanic or Latinx (M = 18; n = 1),

Indigenous or Native Americans (M = 22, SD = 24.0), with an annual household income of $41,000 to $80,000 (M = 18.5, SD = 12.4), serving in the Air Force (M = 23, SD = 13.2), obtaining the rank of Warrant Officer (M = 19.3, SD = 2.5), and being employed in combat specialties (M = 18.9, SD = 11.7) or in transportation and supply services (M = 20, SD = 18.0), endorsed medium levels of combat. See Table 7 for a comparative summary of the CES findings from the MMHT sub-sample with those of the remaining military participants.

Table 7.

Combat Exposure Scales Results for Military Sub-Samples

Personal Variables		MMHT		Remaining Military Members	
Gender					
	Female	**6.6**	Light	**7.6**	Light
	Male	**10.5**	Light - Moderate	**14.5**	Light - Moderate
Age					
	18 - 33	**7.75**	Light	**14.9**	Light - Moderate
	34 - 41	**8.1**	Light	**14.9**	Light - Moderate
	42 - 49	**10.7**	Light - Moderate	**11.8**	Light - Moderate
	50 - 57	**18.3**	Moderate	**9.8**	Light - Moderate
	58+	**4.5**	Light	**10.3**	Light - Moderate
Ethnicity					
	Hispanic, Latinx or Spanish origin	**4**	Light	**18**	Moderate
	Multiracial	**3**	Light	**7**	Light
	Indigenous or Native American	**2**	Light	**22**	Moderate
	White or European descent	**9.7**	Light - Moderate	**12.7**	Light - Moderate
	Other ethnicities	**10**	Light - Moderate	**6**	Light
Annual Household Income	$0 - $40,000	**14.5**	Light - Moderate	**8.7**	Light
	$41,000 - $80,000	**7.2**	Light	**18.5**	Moderate
	$81,000 - $120,000	**7.9**	Light	**9.7**	Light - Moderate

Table 7 - continued

		MMHT		Remaining Military Members
$120,001 - $160,000	**12**	Light - Moderate	**11.1**	Light - Moderate
$160,001 - $200,000	**7.7**	Light	**8**	Light
$200,001+	**8.8**	Light	**14.3**	Light - Moderate

Personal Variables		*MMHT*		*Remaining Military Members*
Highest Level of Education Completed				
High school or GED	**4**	Light	**15**	Light - Moderate
Some university classes	**9**	Light - Moderate	**15.8**	Light - Moderate
Bachelor's degree	**4.3**	Light	**13.1**	Light - Moderate
Master's degree	**13.6**	Light - Moderate	**10.5**	Light - Moderate
Ph.D./Psy.D./M.D. or equivalent	**6.4**	Light	**9.7**	Light - Moderate

Military-Related Demographics				
Country Served				
USA	**10.5**	Light - Moderate	**13.1**	Light - Moderate
Commonwealth Countries	**2.8**	Light	**12.3**	Light - Moderate
Branch of Service				
Air Force	**10**	Light - Moderate	**23**	Moderate
Army	**10**	Light - Moderate	**14.4**	Light
Marines	**9**	Light - Moderate	**16.2**	Light
National Guard	**0**	Light	**0**	Light
Navy	**5.7**	Light	**6**	Light
Service Capacity				
Active Duty	**8.9**	Light	**13.4**	Light - Moderate
Reserve	**1**	Light	**10**	Light - Moderate
Both	**11**	Light - Moderate	**12.5**	Light - Moderate
Rank Level				
Enlisted Member	**10.75**	Light - Moderate	**15.6**	Light - Moderate
Warrant Officer	**0**	Light	**19.3**	Moderate
Officer	**6.8**	Light	**5.9**	Light
Occupation				
Combat Specialties	**11.8**	Light - Moderate	**18.9**	Moderate

Table 7 - continued

	Machine & Electronic Maintenance	**0**	Light	**7.5**	Light	
	Science & Technology Information	**15.4**	Light - Moderate	**12.7**	Light - Moderate	
	Health & Protective Services	**5.8**	Light	**6.4**	Light	
	Transportation & Supply Services	**22**	Moderate	**20**	Moderate	
	No primary occupation	**11**	Light - Moderate	**9**	Light - Moderate	
	Other	**4.14**	Light	**10.8**	Light - Moderate	
Years Since Service	Currently Serving	**5.5**	Light	**14**	Light - Moderate	
	0 - 10 years	**12.9**	Light - Moderate	**13.6**	Light - Moderate	
	11 - 20 years	**7.5**	Light	**13**	Light - Moderate	
	21+ years	**5**	Light	**6.2**	Light	

Moral injury events scale (MIES) results

As with the CES, the MIES was also administered only to those in the military sample. The total mean MIES score across this entire sample was 28.3 (n = 95, SD = 12.1) indicating a mild level of exposure to PMIEs. The score range was zero to 54 demonstrating a wide breath of PMIE exposure ratings from minimal to severe. Evaluating the MIES across the same personal and military-related demographic variables as the CES most frequently resulted in a mild level of moral injury event exposure (M score range = 26.4 to 28.9), with a few variables indicating moderate exposure (M score range = 29 to 32.4). An exception to these ranges was found on the race/ethnicity variable. Those respondents who identified as Indigenous or Native American (MIES M = 49.3, SD = 2.3) reported a severe exposure level to PMIEs. See Table 7 (above) for more specified MIES analyses and interpretations.

The total mean MIES score across the MMHT sub-sample was 27.6 (n = 38, SD = 12.7) demonstrating a mild level of PMIEs. This range was also reflected in the remaining military sample's MIES average score of 28.8 (n = 57, SD = 11.8). The MMHT participants indicated similar findings with the majority of personal and military-related demographic variables representing mild (M score range = 18 to 27.6) to moderate (M score range = 29 to 38.3) PMIE levels. Five variables proved to be exceptions to the mild to moderate range for the MMHT sub-sample. Respondents with an income level of $160,001 to 200,000+ (M = 10, SD = 1.0), National Guard members (M = 9, n = 1), and those with no primary military occupation (M = 11, n = 1) all noted a minimal level of exposure to PMIEs. Indigenous or Native American participants (M = 52, n = 1), those with some university education (M = 54, n = 1) and Marines (M = 50, SD = 2.83) endorsed severe levels of PMIEs. Many of the MMHT sub-sample's MIES findings should be interpreted with caution however, as many of these results were generated from a single individual as indicated.

With the MMHT sub-sample responses removed from the total military sample, this sub-sample's MIES average score was 28.8 (SD = 11.85; n = 58) indicating mild exposure. The remaining service members indicated comparable PMIE exposure levels to the MMHT respondents with the majority of all personal and military-related demographic variables being reported in the mild (M score range = 19 to 28.9) and moderate (M score range = 30 to 38) exposure ranges. Three variables proved to be exceptions to the mild to moderate range for this sub-sample. Individuals identifying as Hispanic, Latinx or of Spanish origin (M = 14, n = 1) endorsed PMIE exposure levels in the minimal range, while Indigenous or Native American participants (M = 48, SD = 0.0), and those working in the transportation and supply services occupation (M = 41.3, SD = 7.6) indicated severe exposure. See Table 8 for a comparative

summary of the MIES findings from the MMHT sub-sample with those of the remaining military

participants.

Table 8.

Moral Injury Events Scale Results for the Military Sub-Sample

Personal Variables		MMHT		Remaining Military Members	
Gender					
	Female	**31.9**	Moderate	**33**	Moderate
	Male	**24.5**	Mild	**27.8**	Mild
Age					
	18 - 33	**24**	Mild	**32.1**	Moderate
	34 - 41	**29.1**	Moderate	**27**	Mild
	42 - 49	**23.8**	Mild	**26.7**	Mild
	50 - 57	**22.3**	Mild	**30**	Moderate
	58+	**38.3**	Moderate	**28**	Mild
Ethnicity					
	Hispanic, Latinx or Spanish origin	**32**	Moderate	**14**	Minimal
	Multiracial	**33**	Moderate	**20**	Mild
	Indigenous or Native American	**52**	Severe	**48**	Severe
	White or European descent	**26.6**	Mild	**28.4**	Mild
	Other ethnicities	**18**	Mild	**38**	Moderate
Annual Household Income	$0 - $40,000	**31.7**	Moderate	**33**	Moderate
	$41,000 - $80,000	**34.8**	Moderate	**26.8**	Mild
	$81,000 - $120,000	**25.5**	Mild	**31.7**	Moderate
	$120,001 - $160,000	**26.5**	Mild	**23.8**	Mild
	$160,001 - $200,000	**10**	Minimal	**28.2**	Mild
	$200,001+	**29**	Moderate	**32**	Moderate
Highest Education Level	High school or GED	**27**	Mild	**27.7**	Mild
	Some university classes	**54**	Severe	**31.2**	Moderate

Table 8 - continued

	Bachelor's degree	**26.8**	Mild	**28.6**	Mild
	Master's degree	**30.8**	Moderate	**26.5**	Mild
	Ph.D./Psy.D./M.D. or equivalent	**20.8**	Mild	**26.7**	Mild

Military-related Demographics

Country Served					
	USA	**29.5**	Moderate	**30.3**	Moderate
	Commonwealth Countries	**20.8**	Mild	**27.1**	Mild
Branch of Service					
	Air Force	**35**	Moderate	**19**	Mild
	Army	**24.6**	Mild	**28.4**	Mild
	Marines	**50**	Severe	**34**	Moderate
	National Guard	**9**	Minimal	**34**	Moderate
	Navy	**25.7**	Mild	**25.3**	Mild
Service Capacity					
	Active Duty	**28.8**	Mild	**28.9**	Mild
	Reserve	**22**	Mild	**30.75**	Moderate
	Both	**24.4**	Mild	**28**	Mild
Rank Level					
	Enlisted Member	**34.85**	Moderate	**30.1**	Moderate
	Warrant Officer	**0**	N/A	**26.8**	Mild
	Officer	**19.6**	Mild	**23**	Mild
Occupation					
	Combat Specialties	**32.2**	Moderate	**25**	Mild
	Machine & Electronic Maintenance	**0**	N/A	**23**	Mild
	Science & Technology	**25.3**	Mild	**33.7**	Moderate
	Information Health & Protective Services	**25.9**	Mild	**33.7**	Moderate
	Transportation & Supply Services	**28**	Mild	**41.3**	Severe
	No primary occupation	**11**	Minimal	**30.7**	Moderate
	Other	**33.1**	Moderate	**27.1**	Mild
Years Since Service					
	Currently Serving	**19.25**	Mild	**24.7**	Mild

Table 8 - continued

0 - 10 years	**33.2**	Moderate	**31.9**	Moderate
11 - 20 years	**25.8**	Mild	**26**	Mild
21+ years	**33.25**	Moderate	**23.8**	Mild

Results of the moral development scaled (MDS) questions

This section of the overall survey contained four questions designed to assess the possible correlation of a respondent's personal spiritual or religious involvement and moral development and was administered to each participant. The goal of these questions was to obtain preliminary data on how a participant's developmental history may impact their perspectives, attitudes, and beliefs concerning the moral injury construct. The first question in this series collected information on whether or not the respondent's parents or caregivers tried to instill religious beliefs into their life during childhood. The largest selection of participants in both the total military (45.2%; n = 47) and the MHP (45.5%; n = 15) groups indicated the 'yes, definitely' response; followed by the 'yes, somewhat' response at 39.4% for the military sample (n = 41) and 36.4% for the MHP (n = 12). 11.5% of military members (n = 12) endorsed "no, definitely not," while 1.9% (n = 2) were uncertain. For the MHP sample, 6.1% (n = 2) indicated "no, definitely not" and 3.0% (n = 1) were unsure. Given the small sample size of the MHP group, their results should be interpreted carefully.

The second question required the participants to select from 3 levels the role they thought spirituality or religion had in the development of their moral foundation. The highest response indicated for both samples was 'somewhat of a role' with 45.2% of service members (n = 47) and 51.5% of MHP (n = 17). 41.3% of the total military sample (n = 43) indicated that religion or spirituality played 'a significant role' in their moral development in comparison to 36.4% of MHP (n = 12). 12.5% of service members (n = 13) did not view spirituality or religion as being implicated, as did 3.0% of MHP (n = 1).

The third question had respondents indicate their current level of identification with spirituality and religion. As reflected in the previous question, the highest response indicated for both samples was affirmative with 64.4% of service members (n = 67) and 48.5% of MHP (n = 16). 26.2% of military members (n = 7) and 21.2% of MHP (n = 7) responded 'no,' while 8.7% service members (n = 9) and 18.2% MHP (n = 6) were 'unsure' or considered themselves in an 'other' category.

The last question in this moral development sequence required the participants to select the role they thought spirituality or religion had in their adult life from five different levels. For the military sample, the largest response was that spirituality or religion had 'a significant and beneficial role' (39.4%; n = 41) followed by 'somewhat of a beneficial role' at 33.7% (n = 35). The reverse response endorsement was true for the MHP sample with 21.2% (n = 7) indicating that spirituality or religion had 'a significant and beneficial role' and the larger portion of the sample, 45.5% (n = 15), noting it had 'somewhat of a beneficial role.' 19.2% of service members (n = 20) reported that spirituality or religion had 'no role at all' in comparison to 12.1% of MHP (n = 4). A smaller group within each sample also noted that religion or spirituality played a detrimental role in their adult life, with 2.9% of service members (n = 3) indicating a 'significant' impact and 3.8% (n = 4) noting 'somewhat' of a negative role. For the MHP sample, 9.1% (n = 3) specified 'a significant and detrimental role' whereas 3.0% (n = 1) reported 'somewhat' of an adverse experience.

To quantify the nominal responses to these four questions, the specific response categories were scaled and turned into a made-for-study 'Moral Development Scale' (MDS) measure (Appendix K). The purpose of this measure was to allow participants to respond to questions that would allow for the identification of possible correlations of personal spiritual or

religious involvement and moral development. Each question was scaled from zero to two, with a higher score indicating an endorsement of a higher level of personal spiritual or religious involvement. The first question in this measure was scaled from zero to three to appropriately capture the possible response levels. As this measure has not been validated and found to be scientifically reliable, these results should be interpreted cautiously. It is also recommended that this measure not be utilized outside the confines of this study without further investigation. Independent samples t-tests were run for each of the following variables, with a corresponding alpha level of .05 for all tests.

Both the MHP sample's (M = 5.64, SD = 2.67) and the total military sample's (M = 6.3, SD = 2.15) MDS scores reflected a moderate amount of possible correlation of personal spiritual or religious involvement and moral development. An independent samples t-test indicated that these results were non-significant, $t(135) = 1.74$, p = .143. Similarly, the MMHT sub-sample's MDS score (M = 6.5, SD = 2.03) also indicated a moderate amount of possible correlation and was found to be non-significant when compared with the remaining military members (M = 6.1, SD = 2.21), $t(101) = -.95$, p = .344.

Further investigation found non-significant results for the majority of the relevant personal and military-related variables for the total military sample. These variables included: race/ethnicity (p-value range = .141 to .867), education level (p-value range = .063 to .827), branch (p-value range = .082 to .912), rank (p-value range = .495 to .794), and amount of time since military service (p-value range = .302 to .954). Gender was found to be the only significant variable, indicating that female service members (M = 7.0, SD = 1.55) were more likely than males (M = 5.96, SD = 2.30) to endorse a higher possible correlation between their spiritual or religious involvement and moral development, $t(101) = -2.34$, p = .021. All the relevant

variables' analyses for the MHP sample's MDS scores were found to be non-significant. These included gender (p = .256), education level (p = .657), and how frequently one provides clinical services to military clientele (p-value range = .194 to .702). The race/ethnicity variable was not evaluated for the MHP sample as all respondents identified as White. Also, given the overwhelming non-significant findings, the MMHT's MDS responses were not analyzed separately from the total military sample.

Results of the moral injury survey (MIS) questions

This portion of the overall survey contained nine questions designed to assess the respondent's attitudes and beliefs regarding moral injury through their familiarity with terminology and applicability. The total number of military (n = 94, MMHT n = 38) and MHP (n = 30) respondents for this portion was decreased from the overall sample size due to participants ability to skip questions and expected web-based survey attrition (Hochheimer et al., 2016).

The first question in this series collected information on whether or not the respondent had ever heard the term 'moral injury' before. The largest selection of participants in both the total military (69.1%, n = 65) and the MHP (86.7%, n = 26) samples affirmed they were familiar with the term. 29.8% of the military group (n = 28) was not acquainted with the concept, compared to 13.3% (n = 4) of the MHP respondents. When analyzing the MMHT sub-sample as separate from the total military sample, 92.1% of the MMHT participants (n = 35) were familiar in comparison to 53.6% of the remaining service members (n = 30).

The second question required the participants to select all the applicable contexts in which they had previously come into contact with the notion of moral injury. As this was a "check all that apply" question, descriptive analyses were limited to frequency. Both the total military (f = 46) and MHP (f = 25) groups endorsed learning about moral injury most commonly

from academic literature. This result was reflected in the MMHT ($f = 30$) sub-sample as well, while the remaining service members indicated never having heard the term 'moral injury' before taking this survey ($f = 18$).

The third question had participants indicate their belief in the idea that individuals could develop moral injury from military or deployment experiences. The majority of the total military (89.4%, n = 84) and MHP (96.7%, n = 29) sample agreed with this statement, with 7.4% (n = 7) service members demonstrating disagreement. No MHP respondents disagreed with this notion. 94.7% of the MMHT sub-sample (n = 36) agreed, in comparison to 85.7% of the remaining military sample (n = 48). Each of the respondents who disagreed with this statement were categorized in the non-MMHT military group.

The fourth question in this portion had participants indicate their belief in the idea that moral injury could possibly be helpful in the understanding of military or deployment experiences. The majority of the total military (87.2%, n = 82) and MHP (96.7%, n = 29) sample agreed with this statement, with 11.7% (n = 11) service members disagreeing that moral injury would promote the comprehension of deployment. No MHP respondents disagreed with this idea. 89.5% of the MMHT sub-sample (n = 34) agreed, in comparison to 85.7% of the remaining military sample (n = 48). As for disagreement, 10.5% (n = 4) of MMHT participants and 12.5% (n = 7) of the remaining sample did not think the moral injury construct could enhance understanding.

The fifth question in this set of questions had participants indicate their view on the misbelief that moral injury refers to someone who lacks or no longer has morals. The majority of both samples (military = 93.6%, n = 88; MHP = 96.7%, n = 29) indicated a response of 'false,' meaning they believed that moral injury did *not* mean someone lacked morals. No MHP

respondents endorsed the 'true' response, whereas 3.2% (n = 3) of the total military sample did. 94.7% of the MMHT sub-sample (n = 36) indicated 'false' in comparison to 92.9% of the remaining military sample (n = 52). One MMHT respondent (2.6%) and two other service members (3.6%) specified they believed that moral injury did indicate one's loss of morality.

The sixth and seventh questions were similar and required participants to note their belief in the idea that moral injury could possibly be helpful to both mental health providers (question six) and military members and veterans (question seven). As with the above results, the majority of the total military (question six = 93.6%, n = 88; question seven = 92.6%, n = 87) and MHP (question six = 96.7%, n = 29; question seven = 93.3%, n = 28) samples agreed. No MHP respondents disagreed with this idea in either question while 4.3% (n = 4) of military personnel specified disagreement in both questions. 94.7% (n = 36) of the MMHT sub-sample agreed in both questions, in comparison to 92.9% (n = 52) of the remaining military sample in question six and 91.1% (n = 51) in question seven. Two (5.3%) MMHT participants and two (3.6%) remaining service members disagreed in both questions six and seven.

Question eight asked participants to opine whether they thought the label of 'moral injury' was helpful in describing a real concern. 90.4% (n = 85) of service members and 93.3% (n = 28) of the MHP respondents endorsed that they believed it was helpful. One MHP participant (3.3%) and seven (7.4%) military members disagreed. Looking at the MMHT sub-sample separately, 92.1% (n = 35) agreed, while 7.9% (n = 3) did not. For the rest of the military sample, 89.3% (n = 50) agreed that the moral injury term was useful and 7.1% (n = 4) disagreed.

The last question in this moral injury survey sub-set inquired about the possible stigmatization that the term 'moral injury' may bestow upon someone. Most participants in both samples disagreed (total military = 62.8%, n = 59; MHP = 86.7%, n = 26) and endorsed that

moral injury would not be stigmatizing. Only two (6.7%) of the MHP sample indicated that they thought stigmatization could occur which is drastically less than the 30.9% (n = 29) of service members who did. For the MMHT sub-sample, 73.7% (n = 28) did not worry about stigmatization, with 21.1% (n = 8) indicating that this was a concern for them. Even more so, 37.5% (n = 21) of the non-MMHT service members worried about stigmatization in comparison to 55.4% (n = 31) who did not.

As with the MDS, to quantify the nominal responses to these nine questions, these specific responses were scaled and turned into a 'Moral Injury Survey' (MIS) made-for-study measure (Appendix L). The purpose of this measure was to assess the participants' familiarity with and support for the construct of moral injury, leading to a better understanding of the two samples' attitudes and beliefs about this concept. Most questions were scaled from zero to one, with higher scores indicating more familiarity and support. The second question required respondents to 'check all that apply' so each endorsed response was given a score of 1, making the scale of that question from zero to eight. As this measure has not been validated and found to be scientifically reliable, these results should be interpreted cautiously. It is also recommended that this measure not be utilized outside the confines of this study without further investigation.

The MHP sample's (M = 10.3, SD = 2.68) overall MIS scores reflected a moderate level of familiarity with and support for the moral injury construct. In contrast, the total military sample (M = 8.7, SD = 2.93) MDS scores reflected a minimal level of fluency. An independent samples t-test indicated that these findings were significant, $t(122) = 2.72$, p = .0075.

Further investigation found non-significant results for the majority of the relevant personal and military-related variables for the total military sample. These variables included: gender (p = .409), race/ethnicity (p-value range = .096 to .633), *most* education levels (p-value

range = .088 to .820), branch (p-value range = .179 to .867), *some* ranks (p-value range = .149 to .774) and amount of time since military service (p-value range = .177 to .937). The education and rank variables demonstrated three significant findings. Both the master's-level (M = 9.46, SD = 2.80), $t(51)$ = 3.13, p = .0029 and doctoral-level educated service members' (M = 10.1, SD = 3.3), $t(30)$ = 3.06, p = .0047 MIS results were significant when compared to the participants endorsing having taken 'some university classes' (M = 7.2, SD = 2.04). This demonstrates that the higher formally educated service members endorsed more familiarity with and support for this construct. The third significant finding occurred between enlisted members (M = 8.1, SD = 3.01) and officers (M = 9.8, SD = 2.42), $t(87)$ = -2.633, p = .0100, with the latter having more familiarity and support for the moral injury construct.

All the relevant variables' analyses for the MHP sample's MIS scores were found to be non-significant. These included gender (p = .456), education level (p = .778), and how frequently one provides clinical services to military clientele (p-value range = .908 to .987). As with the MDS, the race/ethnicity variable was not evaluated for the MHP sample as all respondents identified similarly.

Distinguishing between the MMHT sub-sample and the remaining military sample highlighted some important findings. The MMHT sub-sample's MIS score (M = 10.3, SD = 2.59) was equivalent to that of the MHP sample and indicative of a moderate level of moral injury familiarity and support. This result was found to be drastically significant when compared to the remaining military members' scores (M = 7.6, SD = 2.52), $t(91)$ = -5.07, p = < .0001 indicating the MMHT sub-sample had more comprehension of moral injury. The variable likely contributing to this significant finding was the branch of service, and in particular members of the Marines (n = 2). Significant relationships were found between the Marines (M = 14.5, SD =

2.12) and the Air Force (M = 9.9, SD = 2.48), $t(7)$ = -2.38, p = .049, the Marines and the Army (M = 10.5, SD = 2.48), $t(21)$ = -2.18, p = .041, and the Marines and the Navy (M = 9.27, SD = 2.50), $t(7)$ = 2.66, p = .033. These findings demonstrate that the Marines endorsed higher levels of familiarity with, and support for, the moral injury construct. Analyses were not conducted with National Guard participants due to low sample size in the MMHT sub-sample. No other significant relationships were found with the MIS results based on service branch.

Besides branch of service, the other evaluated personal and military-related demographics were found to be non-significant for the MMHT sub-sample. These variables included: gender (p = .578), race/ethnicity (due to sample size t-test only ran between Hispanic, Latinx or Spanish origin and White or European decent participants; p = .727), education levels (p-value range = .524 to .878), rank (due to n, t-test only ran between enlisted members and officers; p = .918), and amount of time since military service (p-value range = .125 to .841).

Analyzing the remaining service members MIS scores with the removal of the MMHT sub-samples' results shows predominately non-significant findings with exceptions within the education level and rank variables. Within the education level variable, a significant relationship was found between those service members holding a doctoral or medical degree (M = 10.5, SD = 2.1) and those having completed some university classes (M = 7.2, SD = 2.10), $t(19)$ = 2.11, p = .049. This finding demonstrates that those more highly educated service members (n = 2) endorsed higher levels of familiarity with, and support for, the moral injury construct than those with only some university classes. All other analyses conducted based on education level were non-significant (p-value range = .117 to .924). As indicated previously, given the small sub-sample sizes these findings should be interpreted cautiously.

Student's t-tests revealed that officers (M = 9.1, SD = 1.90) reported more favorable beliefs about the moral injury construct than enlisted members (M = 7.0, SD = 2.59), $t(49) = -2.69$, p = .010. This finding was statistically significant. All other t-tests conducted based on the rank variable were non-significant (p-value range = .269 to .680).

Each of the other variables analyzed demonstrated non-significant findings for the non-MMHT military sub-sample. These variables included: gender (p = .741), race/ethnicity (due to sample size t-test only ran between Indigenous or Native American and White or European decent participants; p = .440), and amount of time since military service (p-value range = .377 to .547).

Potentially morally injurious experience scenario results

This survey included eight scenarios to which respondents were asked three follow-up questions per scenario. The scenarios were generated from previously published academic literature and personal communication the student investigator had with currently serving military members, veterans, and academic professionals (Moral Injury Project, n.d.; Harris et al., 2015; Callaway & Spates, 2016). They were analyzed both quantitatively and qualitatively, utilizing descriptive analyses, independent samples t-tests, Chi Squares, and thematic analyses. See Table 9 for the full text of each scenario and its abbreviated reference name.

77.2% (n = 71) of the total military sample (n = 92) agreed that the Navy ship scenario could possibly result in a moral injury, in comparison to 19.6% (n = 18) who disagreed and 3.3% (n = 3) who did not provide a response. For the MHP sample (n = 30), 93.3% (n = 28) agreed, 3.0% (n = 1) disagreed, and 3.3% (n = 1) chose to not provide a response. Participants were asked to rank how frequently they believed a service member might develop a moral injury from this scenario. Their choices included never, seldom, sometimes and often. 3.3% (n = 3) military

members endorsed 'never,' 14.1% (n = 13) indicted 'seldom,' and equally, 41.3% (n = 38) of this

sample endorsed either 'sometimes' or 'often.' Similar responses were determined with the MHP

sample with none supporting the 'never' response, 10.0% (n = 3) indicating 'seldom,' 46.7% (n

= 14) endorsing 'sometimes,' and 40% (n = 12) responding with 'often.' The MMHT sub-

sample's descriptive statistics for each scenario were not analyzed independently; however, their

specific independent t-tests and Chi Square results will be presented below.

Table 9.

Scenarios

Scenario Number	Scenario Content	Abbreviated Name
1	A Navy ship is deployed to rescue civilians from a shipwreck in an ocean. The Navy ship is only able to rescue 75% of the number of civilians in the water, the other 25% of the civilians must be left behind.	"Navy ship"
2	An Army medic lacks the resources to assist severely injured civilians after a battle that included small arms fire, and thereby knowingly leaves many <u>civilians</u> to suffer or die.	"Medic and civilians"
3	An Army medic lacks the resources to assist severely injured enemy combatants after a battle that included small arms fire, and thereby knowingly leaves many <u>enemy combatants</u> to suffer or die.	"Medic and enemy combatants"
4	An Army medic lacks the resources to assist severely injured comrades after a battle that included small arms fire, and thereby knowingly leaves many <u>comrades</u> to suffer or die.	"Medic and comrades"
5	A soldier comes across a known enemy combatant who is unarmed and holding his young child. The soldier makes the decision to eliminate the enemy combatant. In the shooting, both the enemy combatant and child are killed.	"Enemy combatant with child"
6	A military member is sexually assaulted by a similar ranking comrade whom they trusted.	"Sexual assault"

Table 9 - continued

7	A military member is deployed internationally. They learn that their comrades have been exploiting local children for sexual favors in return for water, food and blankets. They themselves have not engaged in these activities but worry about whether to report the observation or not.	"Exploited children"
8	A service member is the latest in several generations of his/her family to voluntarily join to fight in the war on terror. After deploying various times and experiencing many comrades being killed or permanently injured, the service member is discouraged. They begin to believe the battles serve alternative purposes (e.g., the financial interests of large corporations; for oil; a show of mighty force, etc.) than for freedom and democracy for their country. They have no way of addressing this concern.	"Alternative purposes for war"

84.6% (n = 91) of the total military sample (n = 91) agreed that the medic and civilian scenario could possibly result in a moral injury. This was compared to 14.3% (n = 13) of service members who disagreed and 1.1% (n = 1) who did not provide a response. For the MHP sample, 96.7% (n = 29) agreed, none disagreed, and 3.3% (n = 1) chose to not provide a response. For the ranking question, 3.3% (n = 3) military members endorsed 'never,' 13.2% (n = 12) indicated 'seldom,' 39.6% (n = 36) of this sample endorsed 'sometimes,' and 44.0% (n = 40) selected 'often.' Again, no MHP participants supported the 'never' response, 3.3% (n = 1) indicated 'seldom,' 56.7% (n = 17) endorsed 'sometimes,' and 36.7% (n = 11) responded with 'often.'

Results for the medic and enemy combatant scenario showed that the majority of both the total military (n = 89; 76.4%, n = 68) and MHP (83.3%, n = 25) samples believed this PMIE exposure could result in moral injury. A larger portion of service members (22.5%, n = 20) than MHP (13.3%, n = 4) believed that it would not. 7.9% (n = 7) of military personnel indicated one would 'never' develop a moral injury after experiencing this scenario, compared to the 36% (n = 32) who indicated one would 'seldom' develop an injury, the 41.6% (n = 37) who noted 'sometimes,' and the 13.5% (n = 12) who indicated 'often.' No MHP participants supported the

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'never' response, 33.3% (n = 10) indicated 'seldom,' 53.3% (n = 16) endorsed 'sometimes,' and 10% (n = 3) responded with 'often.'

92.1% (n = 82) of the total military sample (n = 89) agreed that the fourth scenario involving the medic and their comrades could possibly result in a moral injury. Comparatively, 7.9% (n = 7) of service members disagreed. For the MHP sample, 93.3% (n = 27) agreed, none disagreed, and 6.7% (n = 2) chose to not provide a response. For the ranking follow-up question, the results showed that 1.1% (n = 1) of military members endorsed 'never,' 7.9% (n = 7) indicated 'seldom,' 11.2% (n = 10) of this sample endorsed 'sometimes,' and the strong majority of 79.8% (n = 71) selected 'often' as the degree to which a service member may develop a moral injury. As with each of the previous scenarios, no MHP participants supported the 'never' response, 3.3% (n = 1) indicated 'seldom,' 20% (n = 6) endorsed 'sometimes,' and 70% (n = 21) responded with 'often.'

Results for the enemy combatant with child scenario showed that the majority of both the total military (n = 88; 92%, n = 81) and MHP (90%, n = 27) samples believed this PMIE exposure could result in moral injury. Again, a larger portion, albeit a small number, of service members (5.7%, n = 5) than MHP (3.3%, n = 1) believed that it would not. 2.3% (n = 2) military personnel indicated one would 'never' develop a moral injury after experiencing this situation, compared to the 8% (n = 7) who indicated one would 'seldom' develop an injury, the 27.6% (n = 24) who noted 'sometimes,' and the 60.9% (n = 53) who indicated 'often.' No MHP participants endorsed the 'never' or 'seldom' responses, 13.3% (n = 4) indicated 'sometimes,' and 76.7% (n = 23) endorsed 'often.'

80.7% (n = 71) of the total military sample (n = 88) agreed that the sixth scenario regarding a sexual assault could potentially produce moral injury. Comparatively, 17% (n = 15)

disagreed. 63.3% (n = 19) of the MHP sample endorsed moral injury development whereas 23.3% (n = 7) disagreed. The findings based off the ranking follow-up question revealed that 8% (n = 7) of the military personnel endorsed 'never,' 12.5% (n = 11) indicated 'seldom,' 10.2% (n = 9) of this sample endorsed 'sometimes,' and the majority of 68.2% (n = 60) selected 'often.' One MHP respondent (3.3%) supported the 'never' response, 16.7% (n = 5) indicated both the 'seldom' and 'sometimes' level, while 46.7% (n = 14) responded with 'often' as the degree to which a service member may develop a moral injury.

The seventh scenario queried about exploited children and both the total military (n = 87; 85.1%, n = 74) and the MHP (86.7%, n = 26) samples demonstrated similar levels of agreement that this situation would cause moral injury. 11.5% (n = 10) of service members and 6.7% (n = 2) of MHP disagreed. 6.9% (n = 6) of the total military sample endorsed that this situation would 'never' lead to moral injury, 16.1% (n = 14) thought it 'seldom' might, 23% (n = 20) noted 'sometimes' and the majority of 51.7% (n = 45) indicated this experience would often lead to psychological distress. As with the majority of the previous scenarios, none of the MHP sample believed one would never develop a moral injury after this event. 3.3% (n = 1) endorsed the 'seldom' response, 53.3% (n = 16) believed it may 'sometimes' lead to moral injury, and 36.7% (n = 11) believed moral injury would often occur.

Like the seventh scenario, the final scenario regarding alternative purposes for war resulted in similar results for the total military (n = 67; 75.9%, n = 66) and MHP (76.7%, n = 23) samples with both endorsing agreement that this situation could lead to moral injury. 21.8% (n = 19) military members and 13.3% (n = 4) MHP did not think it could. Similar results were found on the follow-up ranking question for both samples. 7.1% (n = 6) of service members responded with 'never,' 17.6% (n = 15) believed moral injury would 'seldom' develop, 38.8% (n = 33)

indicated 'sometimes,' and 31.8% (n = 27) thought moral injury may 'often' follow this experience. Paralleling the pattern of these findings, no MHP participants responded with 'never,' 26.7% (n = 8) agreed that moral injury may seldomly occur, the largest collection of professionals (40%, n = 12) endorsed 'sometimes,' and 20% (n = 6) believed moral injury may 'often' ensue.

Chi-square analyses were conducted on the follow-up question of whether or not the respondents believed moral injury could occur following the specified scenario. The results from both the total military sample in comparison to the MHP respondents (χ^2 (7) = 1.59, p = .979) and the MMHT sub-sample as compared to the remaining service members, (χ^2 (7) = 1.89, p = .966) were found to be non-significant. The two-sample Kolmogorov–Smirnov Goodness of Fit Test was initially planned to assist in testing for the normality of the two samples responses to the ranking questions following the scenarios. However, after running an initial analysis the resulting distributions were not significantly different (D(2) = .438, p = >.999). Therefore, Student's independent samples t-tests were selected instead.

In order to utilize t-tests on the collected nominal data, 'dummy' variables were established to generate ordinality. The 'never' response became a score of zero, 'seldom' became one, 'sometimes' was made into a score of two, and an 'often' response became equal to three. T-tests were then conducted utilizing these ordinal data.

The results of the t-tests ran between the total military and MHP samples were non-significant for the following scenarios: Navy ship (p = .530), medic and civilians (p = .523), medic and enemy combatants (p = .388), medic and comrades (p = .898), sexual assault (p = .584), exploited children (p = .490), and alternative purposes for war (p = .696). The fifth scenario which involved the enemy combatant with a child example was found to be significant.

In this scenario the total military sample (M = 2.49, SD = .747) less frequently indicated their belief that a service member would 'often' develop a moral injury from the described situation as compared to the responses provided by the MHP (M = 2.85, SD = .362) sample, $t(111) = 2.43$, p = .017.

As with the total military sample in contrast to the MHP respondents, the MMHT sub-sample's t-tests were found to be non-significant when compared to the remaining service members. The non-significant findings per scenario are as follows: Navy ship (p = .278), medic and civilians (p = .183), medic and enemy combatants (p = .055), medic and comrades (p = .943), enemy combatant with child (p = .320), sexual assault (p = .683), exploited children (p = .830), and alternative purposes for war (p = .329).

Qualitative results for scenario questions

In line with qualitative research standards, the qualitative component of this study did not set out to prove the research hypotheses as previously stated for the quantitative data (Taylor & Ussher, 2001). Instead, the focus of the qualitative survey questions and thus, qualitative analysis, was to provide a more robust and flexible picture to the overall exploratory research goal of providing an initial comparison between MHP and service members in regard to their attitudes and beliefs about the moral injury construct. Due to the large volume of qualitative data, illustrative thematic analyses are provided for three of the PMIE scenarios to provide a "rich and detailed, yet complex, account of data" (p. 78) for which thematic analyses are known while simultaneously being aware of and avoiding the "'anything goes' critique" which has often burdened qualitative research (Braun & Clarke, 2006, p. 78; Antaki, Billig, Edwards & Potter, 2002). Prior to the administration of the qualitative questions, a small number of military (n = 10) and MHP (n = 3) respondents elected to discontinue their participation.

Before developing themes, the student investigator read through the entire data sets for the scenarios. Both the total military and the MHP sample's typed responses to the scenario follow up question: "Explain briefly why someone might or might not develop a moral injury after the above event?" were reviewed. Next, initial codes for the military members' responses to the scenarios were developed, followed by the MHP responses. No comparisons between samples' codes were conducted during the initial coding phase. After the initial codes were developed, larger themes were sought into which the codes would understandably fit. The codes were then categorized into the larger themes ensuring that each response could meaningfully cohere into a theme. It became apparent during thematic analysis that some codes also required sub-codes. For a visual depiction of the relationship between themes, codes and sub-codes, see Figure 1. After the themes had initially been generated, they were reviewed and those without support (e.g., limited data) or non-distinct themes were discarded or collapsed into one theme. Themes were then named and defined, and once again reviewed in relation to the sample's entire collection of responses to each particular scenario. Any final adjustments to themes, codes or sub-codes occurred at this time. This entire process was repeated for each samples' responses to the presented scenarios.
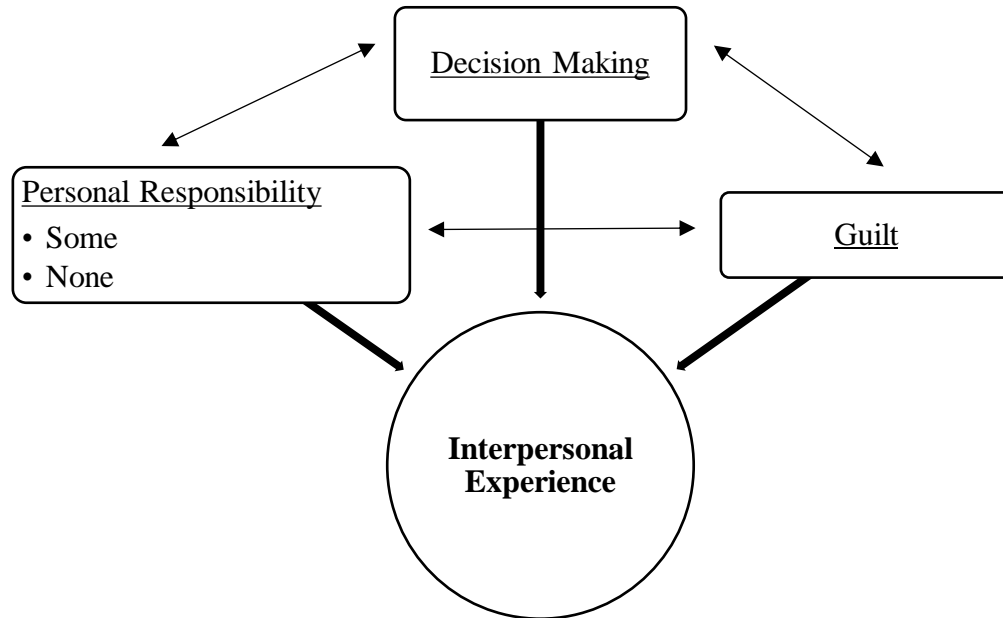
Figure 1. Initial thematic map for first theme of Scenario #1. Demonstrates one theme (Interpersonal Experience), three codes (Personal Responsibility, Decision Making, and Guilt) and one set of two sub-codes for the Personal Responsibility code (Some and None).

The first scenario to be qualitatively analyzed was the Navy ship scenario. Four main themes were developed for the total military sample (n = 81) including Interpersonal Experience, Military Training, Military Dynamics, and Miscellaneous. The Interpersonal Experience theme resulted in three codes and two sub-codes (see Figure 1). Both the Military Training theme and the Military Dynamics theme had two codes with the Leadership code having two sub-codes. The Miscellaneous theme had no codes. Examples of service members' written statements for each theme, code or sub-code are provided in Table 10.

Table 10.

Selected Quotes from Service Members for Scenario #1 Themes, Codes, and Sub-codes

Themes	*Codes*	*Sub-Codes*	*Quotes*
Interpersonal Experience			

Table 10 - continued

	Personal Responsibility		
		Some	"*Feeling that they could have done more. Feeling that they killed the people left behind.*"
		None	"The fact is there is only enough space for 75% of individuals to be saved. There is nothing that one can do to change that. It is not a choice it is a reality of the situation. There is not the option to save more people, so no choice is given."
	Decision Making		"*Why is one life worth saving over others?*"
			"*Why is it up to us to decide their fate?*"
	Guilt		"*I believe their* [sic] *could be guilt felt for leaving people behind.*"
Military Training			
	"No one left behind"		"*Leave someone behind in a dangerous situation? No, that's not what we do. This situation has actually caused my heart to speed up, and I'm upset with the whole thing. even just thinking about this is unnerving. Leave them behind?*"
	Alternative service member behavior		"*We serve all - some service members would likely jump off the boat to ensure as many civilians were saved as possible*"
Military Dynamics			
	Leadership		
		Support For	"*Servicemembers* [sic] *are trained to obey their superiors unquestioning their authority. If there's* [sic] *is only enough room for 75%, so be it.*"
		Issues With	"*I would have serious doubts about the decision factors made by the Chain of Command.*"
	Logistics and Resources		"*This event would never occur, enough support would be dispatched to rescue everyone*"
Miscellaneous			"*I don't think moral injury is exclusive to people who have done a morally wrong thing. I think it can occur after doing what is morally right, but still experiencing someone else's death. I know of one vet who was a sniper and still sees the faces of people he killed. All 'clean' kills as far as the law goes, but still, not something he can forget doing.*"

The MHP responses (n = 25) to the first scenario generated three themes: Personal

Variables, Military Factors and Miscellaneous. The Personal Variables theme resulted in three

codes including Values, Decision Making and Emotions. Both the Military Factors and

Miscellaneous themes had no codes. Examples of MHP participants' written statements for each

theme or code are provided in Table 11.

Table 11.

Selected Quotes from MHP Sample for Scenario #1 Themes and Codes

Themes	Codes	Quotes
Personal Variables		
	Values	*"Any event that can lead to a values conflict has the potential for negative lasting effects depending on how someone copes with uncomfortable past decisions."*
	Decision Making	*"One might think that he or she has the responsibility to "play God" in determining who lives and who dies in such a situation."*
	Emotions	*"Those who had a harder time experiencing empathy or who* [had] *been desensitized to human suffering might follow authority with less moral distress."*
		"A person could experience guilt and shame around leaving another human being to die."
Military Factors		*"Service members are trained to never leave anyone behind - especially innocents."*
		"It depends on how they perceive of the situation given their training and belief in what constitutes the rules of the mission and obligations set by their command and battalion."
		"Many, if not most, will not ascribe the inability to save everyone to the situation and be OK. They will be caught between their values about life and a perfectionist standard for the value of the mission."
Miscellaneous		*"It's an unhelpful term. Isn't it broadly classified under cognitive dissonance anyway?"*

The second scenario to be qualitatively analyzed was scenario five which involved an enemy combatant with a child. This was the only scenario found to be statistically significant between the two samples according to Student's t-test. Three main themes were developed for the total military sample (n = 68) including Child Factor, Rules of Engagement, and Personal Variables. The Child Factor theme was comprised of three codes, including Innocent, Future Enemy and Key Factor. Both the Rules of Engagement and Personal Variables themes had two codes each including Legal Concern and Alternative Actions within the Rules of Engagement theme and History and Guilt codes within the Personal Variables theme. No sub-codes were generated for this scenario. Examples of service members' written statements for each theme or code are provided in Table 12.

Table 12.

Selected Quotes from Service Members for Scenario #5 Themes and Codes

Themes	Codes	Quotes
Child Factor		
	Innocent	*"Not only did he take the life of an enemy, he also took the life of an innocent child."*
	Future Enemy	*"it can be viewed as the child was going to be a future combatant"*
	Key Factor	*"The child would cause the conflicting emotion, not the enemy combatant. The enemy chose the fight, but the child did not"*
		"I have never known a vet who wasn't disturbed by the death of children, no matter what the circumstances."
Rules of Engagement		
	Legal Concern	*"This event crosses into the legal realm, and it is likely this soldier will be charged with a crime for killing a* [sic] *unarmed combatant"*
		"This is murder and the soldier would face trial as it was not an enemy combatant. There was no weapon. This is against Geneva Convention."

Table 12 - continued

Personal Variables	Alternative Actions	*"There are multiple other ways to handle this situation. The soldier could detain the enemy combatant and killing the child is inexcusable."*
	History	*"Individual training and childhood raising will directly affect this perception, as will Rules of Engagement for each nation."*
		"It would depend on their personal code, how they identify with being a father/mother and the hope of that young child becoming something other than a future enemy combatant."
	Guilt	*"Guilt over needless murder."*

The MHP responses (n = 23) to the fifth scenario produced four themes: Child Factor, Interpersonal Interpretations, Professional Stories, and Miscellaneous. The Child Factor theme resulted in two codes including Innocent and Wrong. The other themes did not have codes or sub-codes. Examples of MHP participants written statements for each theme or code are provided in Table 13.

Table 13.

Selected Quotes from MHP Sample for Scenario #5 Themes and Codes

Themes	*Codes*	*Quotes*
Child Factor		
	Innocent	*"I think it would due to the child being killed in the incident and the likely belief that the service member would see the child as an innocent bystander that had their life taken from them."*
	Wrong	*"Killing children is a relatively universal moral "wrong""*
Interpersonal Interpretations		*"Most people hold moral standards that it is inappropriate/ unacceptable to kill a child. Having to make an on the spot decision to let a child die in order to possibly ensure the safety of others may be a logical choice but it would still violate deeply held values for many people."*
		"Depends on the soldier's mindset that led to the killing - if he is secure in the thought that he made the only decision he could given his perceived threat, then he would be less likely to develop moral injury. However, most people in this situation would

Table 13 - continued

	probably second guess their reaction to an unarmed combatant."
	"It depends on the values conflict and ability to cope with difficult past decisions. The more morally ambiguous situations may contribute to getting stuck more easily, because it is less clear whether a value was or was not violated."
Professional Stories	*"Veterans I work with moral injury often have stories involving kids."*
	"Having worked with Veterans with similar experiences, I believe they would experience moral injury related to having killed the child."
Miscellaneous	*"Children are innocent.... or may be just as lethal."*

The last scenario to be qualitatively analyzed and presented in this document was scenario eight which involved alternative purposes for war. Four main themes were developed for the total military sample (n = 60) including Exploitation and Complicity, Government, Military Leadership, and Expected Outcome. No codes or sub-codes were generated by this sample's responses for this scenario. Examples of service members' written statements for each theme or code are provided in Table 14.

Table 14.

Selected Quotes from Service Members for Scenario #8 Themes

Themes	Quotes
Exploitation and Complicity	*"Being exploited for economic gain by others in powerful positions is morally outrageous. As a Viet Nam veteran, I feel I was similarly used."*
	"Continuejng [sic] to fight when it feels wrong creates guilt and resentment. Anger that you wee [sic] part of it."
	"I have wondered what is [sic] was all for. Why my buddy who had a wife and child did not get to see his daughter grow up but I can come home to nobody"
Government	*"Being disenchanted with the government and the system would be very hard to talk about with other family members who believe in the cause."*
	"This is me. I harbor great disdain and mistrust of our political system. I believe a lot of veterans who live on the fringes of our society fit into this category. Most

Table 14 - continued

Military Leadership	*of us joined the service for altruistic reasons. When the honor that we served for is betrayed, it hurts. Our political machine offers little in the way of accountability for policy decisions that cost a lot but benefit nothing."* *"Its* [sic] *disheartening when you realize the higher levels have no plan or desire for actual victory and fighting the war becomes a foreign policy objective in itself."*
Expected Outcome	*"You can always bring your concerns forward to your chain of command, even if they personally disagree with your comments."* *"...happens...for example: Afghanistan the war is continuous. Why are we putting in the effort, but the best thing I ever did professionally, but war is never good."* *"We all know as soldiers in the end its* [sic] *about the money"*

The MHP responses (n = 21) to the eighth scenario similarly produced four themes: Personal Views, A Just War, Loss of Life, and Miscellaneous. The Personal Views theme resulted in two codes including Of Self and Of Others. The other themes did not generate any codes or sub-codes. Examples of MHP participants' written statements for each theme or code are provided in Table 15.

Table 15.

Selected Quotations from MHP Sample for Scenario #8 Themes and Codes

Themes	Codes	Quotes
Personal Views		
	Of Self	*"This is a bit more of an ethical crisis, but this persons* [sic] *identity is likely greatly tied to his service member status. This could cause him to question his own goodness or the "rightness" of himself and his family's involvement."*
	Of Others	*"The service member might begin to question her/his patriotism as well as guilt and shame associated with not being aware, earlier, of what is now being perceived as a betrayal by one's own trusted government resulting in the death of comrades"* *"Depending on their educational level and insight with increasing amounts more likely to generate such beliefs yes it would be*

Table 15 - continued

A Just War	*construed as having sold out on what is right and done the dirty work of higher powers seeking their own gain."* *"Violation of the ideal of just war -- we supposedly do not kill others for corporate interests."*
Loss of Life	*"A person may feel as though they are fooled, that they took life for no reason. That while in combat it was justified, but later after developing the opinion that it wasn't they may feel some cognitive dissonance about why they thought it was justified at the time."* *"I think it could if the losses of comrades are seen as the result of going against beliefs they stood for or that their battalion stood for"*
Miscellaneous	*"If this person feels that their friends'/comrades' deaths/permanent injuries and their own actions during war were for an unjust cause, they would be more likely to develop moral injury."* *"It did not take long for soldiers to figure this out in 2003. As the oil fields burned. And carnage ensued."*

These analyses are illustrative of important qualitative features of the data drawn from the present survey. They demonstrate the level of thoughtfulness by respondents and their insights into the moral injury construct. Table 16 presents a summary of derived initial codes from the remaining scenarios included in the survey.

Table 16.

Initial Themes and Codes for Military and MHP Samples' Responses to the Scenarios

	Military		MHP	
	Themes	Codes	Themes	Codes
Scenario 1	Interpersonal Experience	Responsibility	Personal Variables	Values Decision Making Emotions
	Military Training	"No one left behind" Alternative service member behavior	Military Factors Miscellaneous	
	Military Dynamics	Leadership Logistics and Resources		

Table 16 - continued

		Miscellaneous		
Scenario 2		Military Training Leadership Failures Logistics and Low Resources Guilt and Doubt Civilians at Fault Leave No One Behind Unfortunate Reality		Lack of Resources Military Training Leave No One Behind Anger
Scenario 3		Preserve All Life/Duty to Care Enemy Life Dehumanization No Fault Leadership Failure Geneva Convention		War is War Humans are Humans Lack of Resources Military Training
Scenario 4		Survivor's Guilt Brother-/Sisterhood of Service Emotional Tie Leadership Loyalty and Responsibility		Guilt and Shame Anticipated Outcome Brother-/Sisterhood of Service Responsible for Life
Scenario 5	Child Factor	Innocent Future Enemy Key Factor	Child Factor	Innocent Wrong
			Interpersonal Interpretation	
	Rules of Engagement	Legal Concern Alternative Action	Professional Stories Miscellaneous	
	Personal Variables	History Guilt		

Table 16 - continued

Scenario 6	Broken Trust		Institutional
	Leadership		Betrayal
	Crime		Betrayal of Trust
	Betrayal		PTSD, No Moral
			Injury
			Scenario Edits
Scenario 7	Stress of Reporting		Harming Children
	Innocent Children		Prior Values
	Guilt		Loss of Trust
	Legality		Protecting
	No Decision,		Comrades
	Report It		
Scenario 8	Exploitation	Personal Views	Of Self
	and Complicity		Of Others
	Government		
	Military	A Just War	
	Leadership	Loss of Life	
	Expected	Miscellaneous	
	Outcome		

CHAPTER V

DISCUSSION

This study provided an initial comparison of the attitudes and beliefs regarding the moral injury construct as held by service members and MHP. A distinction between military members with and without additional mental health training was also incorporated to further provide a detailed assessment. The hypothesis that MHP respondents would be initially more familiar with the moral injury concept was supported.

As this was an exploratory study, findings from this research offer insights into the ongoing academic investigation of moral injury by way of contributing knowledge to differing groups' perspectives (e.g., personal versus professional), to whether or not investigative attention on moral injury should continue, and to how much effort should be put forth into tasks such as construct validation and psychological treatment development. The second hypothesis put forth in this study was also supported through the quantitative and qualitative findings. The strong majority in each sample expressed support for continued investigative work to occur to better understand and address military moral injury resulting from deployment experiences.

Summary of findings

Combat Exposure Scale and Moral Injury Events Scale findings. The mean CES score for

this study's military sample was 11.4 which indicates an average light to moderate level of

exposure. This is a comparable range to other studies that have also utilized a combination

sample of multigenerational active duty and veteran participants (Van Voorhees et al., 2012;

Wisco et al., 2017). As determined previously in the literature, moral injury has a moderate

positive association with combat exposure and is assistive in understanding participants' combat

and deployment experiences (Wisco et al., 2017; Nash et al., 2013). The CES results in this study

served a descriptive function by generating an informative picture regarding deployment

experiences, moral injury concept familiarity, and helping to contextualize the qualitative

scenario responses offered by the service members. The range of CES scores (zero to 39) for

participants in this study demonstrated a breadth of combat experiences.

Similarly, the MIES was utilized predominately for informative purposes. As this is a

new measure that is still in its infancy, noteworthy results were not generated based on MIES

findings alone. However, as with the CES, a broad breadth of PMIEs were demonstrated by this

sample with a score range (zero to 54) indicating minimal to severe PMIE exposure. These

experiences added to the descriptive nature of this study by better contextualizing the qualitative

statements offered through the qualitative scenario responses.

Moral development scale findings. This study administered a made-for-study scale of four

questions which aimed to identify possible correlations of one's personal spiritual or religious

involvement and their moral development. There were no major differences between the military

and the MHP samples with regard to the measure overall. Furthermore, all evaluated personal

variables within the samples themselves as well as the military-related variables assessed within

the military sample demonstrated similarly minor and non-significant differences. The gender variable for the military sample was the one exception. T-test results demonstrated that this significant (p = .021) finding indicated female service members were more likely to report a correlation between their religious or spiritual involvement and their moral development.

As one's social, cultural, and spiritual histories have been suggested as some of the most crucial factors that arise when faced with PMIEs, this result indicates that special attention should be paid to women service members who will likely have differing responses to and consequences from PMIEs than their male counterparts (Farnsworth et al., 2014; Litz et al., 2009). This becomes especially important as the number of female U.S. service members continues its trend of increasing (U.S. Department of Defense, 2016). This finding does not indicate that spiritual or religious involvement is a risk or a protective factor for moral injury as that is beyond the scope of this study. Instead, it identifies that this is likely an important variable to consider in future research.

This result is also important because it mirrors previous findings within the general population worldwide. Previous studies have demonstrated that more women than men globally tend to engage more frequently in religious or spiritual behaviors and identify more commonly as religious or spiritual (Pew Research Center, 2016). This study's replication that service women had a stronger correlation between spirituality or religion and moral development serves to further support the notion that there are cross-cultural similarities that occur regarding morality and presumably, moral injury.

Moral injury survey findings. In addition to the MDS, this study also collected information through another made-for-study scale. The MIS scale was comprised of nine questions which aimed to detect a possible correlation between familiarity with the moral injury academic

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literature and favorable support for the construct. As hypothesized, the MHP respondents were determined to be significantly (p = .0075) more familiar with and supportive of the presented moral injury information than the total military sample, as per Student's t-test findings.

The military respondents who held master (p = .0029) or doctoral degrees (p = .0047) were much more conversant about moral injury than those who had taken only some university-level courses. It is important to note that the most recent demographic findings from the overall U.S. military indicate that 91.2% of enlisted service members have *at most* taken some university classes (U.S. Department of Defense, 2016). Coupling this with the frequency with which members have endorsed PMIE exposure, this is a crucial finding to be noted (Wisco et al., 2017). This study's discovery that higher educated service members are more fluent with the available moral injury information suggests the likelihood that the majority of the military remains unaware and unknowledgeable about moral injury. This is a finding that is both noteworthy and disconcerting.

Furthermore, a distinction was found between service ranks with respect to their knowledge-base of moral injury. It was determined that officers had significantly (p = .01) more familiarity and support for this concept than did enlisted members. This is a key observation given that military leadership is considered a critical component to both the possible prevention and exacerbation of moral injury symptoms (Fransworth et al., 2014; Litz et al, 2009; Shay, 2014). Understandably, many of the qualitative remarks offered by both the service members and the MHP respondents were related to military leadership and the Chain of Command.

Moreover, when a distinction was made between military members with and without additional professional mental health training, the MMHT sub-sample was drastically and significantly (p < .0001) more familiar with and knowledgeable about moral injury than the

remaining service members. This verifies that those in mental health fields, both with and without a personal history of military service history, are far more well-informed about moral injury than non-MMHT individuals. This does not mean that service members are not aware of PMIEs or of moral injury, as was documented in this study's qualitative findings, but that the current academic information is not being adequately disseminated to all relevant military populations. The majority of service members themselves did not seem to be widely versed in the available knowledge of moral injury unless they had a vested interest in the mental health field. This is problematic for an emerging concept such as moral injury which is highly related to deployment experiences.

A potential confounding variable for the MMHT sub-sample was related to branch of service. It was found that Marine MMHT respondents (n = 2) repeatedly demonstrated significantly higher levels of knowledge in comparison to the Navy, Army, and Air Force members. However, due to the extremely low sub-sample size, this result should be utilized with caution.

Looking at the remaining military sample, those who did not also have mental health training, highlighted similar results as previously discussed. Service members with a doctoral or medical degree were more supportive of the concept of moral injury than those who had taken some university courses (p = .49), as were officers in comparison to enlisted members (p = .01). All other findings were non-significant across the total military sample as well as the MMHT and remaining service member sub-samples. Collectively, these results underscore the previously noted importance of further investigation studying the variables of education level and service rank (Wisco et al., 2017).

Scenario findings. The scenarios presented in this study were evaluated predominately in a quantitative manner with an illustrative qualitative analysis offered. All but one of the ranking responses to these scenarios were deemed non-significant according to t-tests. In these rankings, respondents had to identify how frequently themselves (administered to military participants) or a generic service member (administered to MHP respondents) could develop a moral injury after experiencing that specific scenario. The significant ($p = .017$) exception was the enemy combatant with a child scenario in which MHPs were more likely to assess that service members would endorse 'often' developing moral injury from that event than service members themselves did.

According to Chi Square results, the majority of both samples endorsed that someone could develop a moral injury from this situation; however, the discrepancy lies in how frequently the two groups believed that this would happen. The qualitative thematic analysis sheds light on a possible explanation for the differing opinions: it appears that a small number of military members commented that the child in the scenario may become a future enemy combatant. This theme indicates that a service member endorsing this belief would experience less moral distress than would someone who believes that all children are innocent. Furthermore, the MHP respondents frequently cited professional stories of military members and veterans they provided services to who were disturbed by situations involving children being injured or killed. Given the frequency of these professional encounters as well as the frequency with which the service member sample endorsed the Child are Innocent theme sheds light on understanding this quantitative result.

**Present findings and prior research on mental health professionals'
attitudes and beliefs regarding moral injury**

The findings of this study in regard to the MHP respondent results are closely related to

many of the findings from Drescher et al.'s (2011) qualitative study. Both studies garnered small

samples of MHP participants (n = 33 and n = 21 respectively) although the present study

recruited a much larger collection of MMHT (n = 39) than Drescher et al. (2011; n = 5). This

study found that 96.7% of the MHP sample endorsed that moral injury could develop from

military or deployment experiences, as well as that moral injury is a helpful term in addressing

military concerns (military sample numbers were 89.4% and 87.2% respectively).

Correspondingly, Drescher et al.'s (2011) sample unanimously believed that moral injury is a

needed term when addressing complex military-related experiences and that it is a distinct

concept from PTSD which warrants its own investigative attention. Additionally, comparable

themes such as betrayal and leadership failures were found among the MHP samples' qualitative

responses of both studies.

**Present findings and prior research on service members' attitudes and beliefs regarding
moral injury**

As discussed earlier, the literature is limited when it comes to sharing the lived

experiences, attitudes, and beliefs of service members in regard to deployment-related moral

injury (Meagher & Pryer, 2018). Although responding to hypothetical and diverse scenarios, this

study's thematic analyses in general echoed sentiments put forth by other veterans regarding

such topics as guilt, leadership failures, perpetration, and loss of faith in the cause or mission

(Boudreau, 2011; Nez, 2011; Meagher & Pryer, 2018; Reppenhegen, 2015, February 1; Brenner

et al., 2015; Molendijk, 2018; Vargas et al., 2013; Held et al., 2018).

Some of the collected qualitative comments from this study directly depict respondents'

self-identification with post-deployment morality struggles similar to what Boudreau (2011) and

Reppenhegen (2015, February 1) have modeled in their own writing. This self-identification has also been demonstrated by some of the members interviewed by Brenner et al. (2015), while the term "moral failure" (p. 6) was preferred by Molendijk's (2018) sample but nonetheless indicative of a similar sentiment. One veteran in the present study echoed these previous findings by commenting:

> My experience with moral injury came from times while deployed where my Chain of Command stopped myself and my comrades from assisting allies or operating alongside allies who had been injured for the sake of political reasons, and/or to save face or reputation to those above them. Unacceptable.

Service members who are currently in or have been immersed in a culture that traditionally discourages anything it perceives as a weakness (e.g., displays of emotions besides anger), should be encouraged to self-identify with a mental health issues if applicable. Within the appropriate social context, self-identification with a problematic concern can further motivate an individual to overcome barriers to care, engage in help-seeking behaviors and idealistically, to also begin healing (Hoge et al., 2004; Cornish et al., 2014; Cadaret & Speight, 2018; Kim et al., 2016). Therefore, the findings of this study demonstrate a commonality among various military members' personal experiences that has comparably been reflected in the literature.

Some respondents also endorsed experiencing seemingly identical situations to Boudreau (2011). For instance, one service member noted that "Ordering other soldiers to eliminate questionable combatants haunts me. I'll never know if the people were confirmed enemy combatants" (in response to "Is there anything else you'd like to add about your perspective on moral injury?"). This self-disclosure mirrors one of the personal examples provided by Boudreau (2011) in which he gave orders to a sniper to shoot a man "armed only with a shovel" (p. 747). It also correspondingly reflects Reppenhegen's (2015, February 1) experiences as a sniper.

Boudreau (2011) also highlighted some coping strategies employed by service members

in order to manage the unfamiliar and unexpected "hurt" (p. 746) or "senselessness" (Molendijk,

2018, p. 5) that stems from PMIEs. Specifically, Boudreau (2011) and Held et al.'s (2018)

participants referenced substance and alcohol misuse, a topic that was also echoed by some of

the service members in this sample. For example, one shared:

> I think that it [moral injury] is a very personal injury that is real.
> I left for war a religious person and came back a person not
> knowing what to believe. I constantly question, relive, reply [sic]
> events, and try to find answers to what I was doing there and did
> I do the "right" thing. Trying to deal with life after war I started
> drinking a lot to deal with things and lived a life far from my morals
> prior to war.

Evidently for this respondent, alcohol consumption became the coping mechanism by

which they endeavored to salve the damage done to their personal moral compass as a result of

their deployment experiences. Recent research can be used to highlight that this service member

is one of many who have utilized alcohol to cope with the repercussions of PMIEs (Battles et al.,

2018).

In summary, there were various similarities that were presented in the qualitative data

that reflected the limited publicized opinions of service members struggling with moral injury.

As one of the goals of this study was to highlight any shared experiences of the sampled military

personnel, it is evident that there are many overlapping occurrences in which service members

found moral injury to be a helpful and suitable concept. This strongly suggests that contributing

additional personal perspectives to the literature is both advisable and necessary as the

professional community moves forward in researching moral injury.

Additionally, it must be noted that there exists a lack of personal diversity variables

represented in the record of those whose voices have been published or recognized (nationality, race, gender, and Judeo-Christian biases). Continuing to promote inclusivity within the study of moral injury will better serve both the military community and the mental health profession as they each move toward a better comprehension of moral injury (Callaway & Spates, 2016; Wortmann et al., 2017).

Limitations and directions for future research

There are several limitations to this study and its findings that should be carefully noted by those interested in further research regarding moral injury. The first limitation relates specifically to the study's online survey methodology and general design issues with questionnaire research. It should be recognized that self-selected, convenience samples were utilized in the recruitment. Cogent arguments have been made that any interpretations and inferences made from survey data such as this are applicable only to this study's specific sample. Therefore, these results may not be generalizable but instead be restrictive since the probability of each individual's participation cannot be known (Fowler, 2014). An attempt to address this concern was made through means to obtain a representative sample especially for the military sample with clear demographic demarcations. However, this attempt was only partially successful. The demographic characteristics of this study's military sample revealed they were comparable to the total U.S. military by way of service branch, gender and racial status identification, but not by age or education level (U.S. Department of Defense, 2016; Council on Foreign Relations, 2018). As level of education has previously been noted as a likely compounding factor for moral injury, follow up studies are recommended to address this issue (Currier, Holland & Malott, 2015).

A second limitation related to survey methodology is that, as with all self-report measures, caution must be taken when interpreting the resulting data. As participants respond to their experiences subjectively, it is to be expected that they are then unable to provide an objective perspective. Thus, respondents may either inadvertently or purposely misrepresent their experiences, beliefs or attitudes regarding moral injury. Both under- and over-reporting of experiences is a concern for any research utilizing self-reported data.

The third and related limitation focuses on the anonymous aspect of online research and breadth of reach that may develop response errors. As it is by design that the researcher is blind to the respondents, it is plausible that respondents could have misrepresented themselves, their demographics, or any other reported information. Response errors in anonymous online research might include the misunderstanding or misinterpretation of questions, distorting answers to look favorable to the researcher, answering with malicious intent to misrepresent or skew results, and providing random responses (Fowler, 2014). As well, it is feasible that certain participants who should have been excluded from participation may have been able to participate due to selecting the correct inclusion criteria responses (e.g., 18 years or older). Given the nature of internet research, the possibility for misrepresentation increases and may impact overall results (Wright, 2005).

In addition to the aforementioned limitations focusing on online survey methodology, the relatively small MHP sample size (n = 33) that responded to this survey should also be noted. Despite numerous recruitment attempts to increase MHP participants numbers, this sample size remained small. As with the convenience sample limitations, a small sample size restricts the ability to generalize the results. Thus, MHP results should be evaluated with regard to this specific sample.

The last area of noteworthy limitation in this study is in reference to its exploratory nature. Previous research on military-related moral injury has predominately focused on the perspectives of the MHP population. Therefore, information about service members' attitudes and beliefs is limited at best. Consequently, the data obtained in this study should be interpreted as exploratory, and therefore employed cautiously when used as a foundation for future investigative work.

Overall, this study provided additional investigative data to the limited literature on the attitudes and beliefs of military members and MHPs in regard to the moral injury construct. The need for additional research and information, including both quantitative and qualitative findings, on this topic was supported by both populations. As research continues, the further inclusion of service members' lived experiences and applicable knowledge is clearly required. Additional possible future directions of inquiry include moral injury construct validation, increased emphasis on diversity variable inclusion, personal interviews, case study presentations, and continued psychological treatment development utilizing interdisciplinary collaboration. Attention paid to the evolving nature of warfare (e.g., guerilla war, cyber war, use of drones; Press, 2018) will also likely become necessary to attend to as the investigation on moral injury progresses.

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APPENDIX A

Western Michigan University Human Subjects Institutional Review Board (HSIRB)
Approval Letter

WESTERN MICHIGAN UNIVERSITY

Date: February 7, 2018

To: Amy Naugle, Principal Investigator
        Karis Callaway, Student Investigator for dissertation

From: Daryle Gardner-Bonneau, Ph.D., Vice Chair   *Daryle J. Gardner-Bonneau*

Re: HSIRB Project Number 17-12-12

This letter will serve as confirmation that your research project titled "From the Boots on the Ground: Military Members' Attitudes and Beliefs of the Moral Injury Construct as Compared to Mental Health Providers" has been **approved** under the **exempt** category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note: This research may **only** be conducted exactly in the form it was approved. You must seek specific board approval for any changes in this project (e.g., *you must request a post approval change to enroll subjects beyond the number stated in your application under "Number of subjects you want to complete the study"*)." Failure to obtain approval for changes will result in a protocol deviation. In addition, if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

Reapproval of the project is required if it extends beyond the termination date stated below.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: **February 6, 2019**

Consent Document

Western Michigan University
Department of Psychology

Principal Investigator:	Amy Naugle, Ph.D.
Student Investigator:	Karis L. Callaway, M.A.
Title of Study:	From the Boots on the Ground: A Comparison of the Attitudes and Beliefs of Military Members Versus Mental Health Professionals Regarding the Moral Injury Construct

You have been invited to participate in a research project titled *From the Boots on the Ground: A Comparison of the Attitudes and Beliefs of Military Members Versus Mental Health Professionals Regarding the Moral Injury Construct*. This project is supervised by Dr. Amy Naugle and conducted by Karis Callaway, M.A. This consent document will explain the purpose of this research project and will explain the time commitment, the procedures used in the study, and the risks and benefits of participating in this research project. Please read this consent form carefully and ask any questions you may have. Questions can be e-mailed to karislaine.callaway@wmich.edu.

What are we trying to find out in this study?
The purpose of this anonymous survey is to compare the perspectives of military members and veterans with mental health professionals on the concept of moral injury. No previous education in understanding moral injury is needed to participate in this study. Moral injury is a concept that refers to the psychological consequences that may occur after one feels a betrayal of "what's right" during high-stakes situations, such as an incident occurring during one's military deployment. These consequences (e.g., shame, guilt, social isolation) are often not included in the current understanding psychological traumatic experiences being fear-based, and therefore may be poorly recognized, understood and addressed by professionals.

Who can participate in this study?
Any service member, veteran, or mental health professional with familiarity with military culture, who is over the age of 18 and can read English can participate. Participation is anonymous. Individuals who have both a military service background and professional mental health experience are encouraged to participate as well.

Where will this study take place?
The study will take place online.

What is the time commitment for participating in this study?
If you choose to participate, you are committing to complete a survey that takes approximately 40 minutes. This is a one-time only commitment and you will not be contacted again in relation to this study.

What will you be asked to do if you choose to participate in this study?
You will be asked to fill out a survey regarding your demographics (e.g., ethnicity, education

level), familiarity with military culture either through personal or professional experiences, and present perspectives on the concept of moral injury. You will also be asked to respond to potential morally injurious situations.

Additionally, military and veteran participants will be asked questions regarding their military and deployment history through two short, psychometric measures. These measures require a response before moving forward in the survey to maintain validity.

All other survey questions for all participants may be waived. Responses from uncompleted questionnaires will be reported to indicate the total number of non-completed surveys as calculated by the survey administration system. Partial survey's will be reviewed and available responses may be included in analysis, unless specified not to do so by the respondent on the last question of the survey. Each submitted survey, completed or not, will remain anonymous and will not be linked with your personal information in any way.

What information is being measured during the study?
We will be measuring the responses of the military population as compared to mental health professionals in relation to their perspectives of military-related moral injury.

What are the risks of participating in this study and how will these risks be minimized?
There are no known risks to completing such a survey, except minor psychological discomfort that is to be expected when answering questions about possible distressing events (e.g., deployment related experiences). If you are concerned that you need treatment or intervention services, you may contact the following national services:

National Suicide Prevention Hotline	1-800-273-8255
	www.suicidepreventionlifeline.org
Lifeline for Vets	1-888-777-4443

What are the benefits of participating in this study?
The potential benefits of this research include: 1) self-awareness of personal experiences and how these experiences may have affected you, 2) advancing the academic knowledge of the construct of moral injury and morally injurious events, and 3) contributing to informing mental health professionals and researchers, and military personnel on this topic.

Are there any costs associated with participating in this study?
Time is the only direct cost associated with participating with the study. The survey will take approximately 40 minutes to complete.

Is there any compensation for participating in this study?
No compensation is provided for your participation.

Who will have access to the information collected during this study?
This online survey is completely anonymous. Minimal demographic information is collected to assist in statistical analysis (e.g., age, gender, race, marital status, military branch of service, deployment locations, etc.). There are no personal identifiers required to complete this survey

and there is no way of connecting you to your responses. All of the information collected from you is confidential (e.g., your name will not be collected or appear on any documents on which information for the study is recorded). Any physical copies of forms will be retained for at least three years in a locked file in the principal investigator's laboratory at Western Michigan University. The data may be used in conference presentations or manuscripts for publication in peer-reviewed journals, but your identity will not be reported.

What if you want to stop participating in this study?
You can choose to stop participating in the study at any time for any reason. You will not suffer any prejudice or penalty by your decision to stop your participation. You will experience no consequences if you choose to withdraw from this study.
Should you have any questions prior to or during the study, you can contact the primary investigator, Dr. Amy Naugle at amy.naugle@wmich.edu. You may also contact the Chair of the Western Michigan University Human Subjects Institutional Review Board at 269-387-8293 or the Vice President for Research at 269-387-8298 if questions or problems arise during the course of this study.

This study was approved by the Western Michigan University Human Subjects Institutional Review Board (HSIRB) on 02/07/2018. Please do not participate in this study if the date is older than one year.

Please click the >> button in the lower right-hand corner of the screen to indicate you have read this informed consent document. Clicking this button demonstrates that you understand the risks and benefits and that you agree to take part in this study.

Participating in this survey online indicates your consent for use of the anonymous answers you supply.

APPENDIX C

Outline of Survey Flow

Administered to all participants

Informed consent and referral agencies → Current Age → Have you ever given military service?

"No"

"Yes"

Do you have training, education or experience in military culture or military-related mental health concerns?

Military demographic and general demographic questions

Mental health training assessed

Combat Exposure Scale

Moral Injury Events Scale

"No"

"Yes"

End survey

Mental health professional demographic and general demographic questions

Administered to all participants

Moral injury explanation, MDS, MIS, Scenarios → List of referral agencies → Do you wish to submit your answers?

APPENDIX D

List of Referral Agencies

If you feel discomfort as a result of any of the following questions and wish to seek additional support, please contact any of the agencies below:

National Suicide Prevention Hotline
1-800-273-8255
www.suicidepreventionlifeline.org

Lifeline for Vets
1-888-777-4443

Thank you for your participation in this survey.

APPENDIX E

Combat Exposure Scale (CES)

Please select the answer that best describes your combat experiences. If you have had multiple deployments, please consider them overall as you answer the following questions.

1. Did you ever go on combat patrols or have other dangerous duty?
   - No
   - 1-3x
   - 4-12x
   - 13-50x
   - 51+ times

2. Were you ever under enemy fire?
   - Never
   - Less than 1 month
   - 1-3 months
   - 4-6 months
   - 7 months or more

3. Were you ever surrounded by the enemy?
   - No
   - 1-2x
   - 3-12x
   - 13-25x
   - 26+ times

4. What percentage of the soldiers in your unit were killed (KIA), wounded or missing in action (MIA)?
   - None
   - 1-25%
   - 26-50%
   - 51-75%
   - 76% or more

5. How often did you fire rounds at the enemy?
   - Never
   - 1-2x
   - 3-12x
   - 13-50x

- 51 or more

6. How often did you see someone hit by incoming or outgoing rounds?
- Never
- 1-2x
- 3-12x
- 13-50x
- 51 or more

7. How often were you in danger of being injured or killed (i.e., being pinned down, overrun, ambushed, near miss, etc.)?
- Never
- 1-2x
- 3-12x
- 13-50x
- 51 or more

APPENDIX F

Moral Injury Events Scale (MIES)

Please circle the appropriate number to indicate how much you agree or disagree with each of the following statements regarding your experiences at any time since joining the military

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
1. I saw things that were morally wrong.	1	2	3	4	5	6
2. I am troubled by having witnessed others' immoral acts.	1	2	3	4	5	6
3. I acted in ways that violated my own moral code or values.	1	2	3	4	5	6
4. I am troubled by having acted in ways that violated my own morals or values.	1	2	3	4	5	6

5. I violated my own morals by failing to do something that I felt I should have done.	1	2	3	4	5	6
6. I am troubled because I violated my morals by failing to do something I felt I should have done.	1	2	3	4	5	6
7. I feel betrayed by leaders who I once trusted.	1	2	3	4	5	6
8. I feel betrayed by fellow service members who I once trusted.	1	2	3	4	5	6
9. I feel betrayed by others outside the military who I once trusted.	1	2	3	4	5	6

APPENDIX G

Introduction to Moral Injury Construct

Moral injury is a concept that has recently gained attention in the academic literature as related to, yet distinct, concept from Posttraumatic Stress Disorder (PTSD). Moral injury refers to the psychological aftermath experience of a betrayal of "what's right" during a high-stakes situation. This betrayal can occur either because of a personal action or inaction or at the hands of another individual who holds genuine authority over you.

The term moral injury is used to identify sustained negative "…emotional, psychological, behavioral, spiritual and social…" consequences brought on by "…acts that transgress deeply held moral beliefs and expectations…" The symptoms of moral injury likely include guilt, shame, anger, re-experiencing, avoidance, emotional numbing, an inability to trust others, despair, suicidality and interpersonal violence. These symptoms must have appeared only after the moral injury event took place and not beforehand.

Survey – Military Member and Veteran Version

1. What is your current age?
   - Younger than 18 (discontinue survey)
   - 18 – 25
   - 26 – 33
   - 34 – 41
   - 42 – 49
   - 50 – 57
   - 58 – 65
   - 66+

2. Have you ever been a member of the military in any country?
   - Yes
   - No (sent to mental health professional survey)

3. Are you currently or have you ever been a mental health professional?
   - Yes
   - No
   - I choose not to provide an answer

4. If yes, in what capacity?
   - Social Worker
   - Psychologist
   - Psychiatrist
   - Psychiatric Nurse
   - Counselor (e.g., substance abuse, pastoral)
   - Peer Support Worker
   - Other professional
   - I choose not to provider a response

5. How would you identify your gender?
   - Female
   - Male
   - Transgender
   - Other
   - I choose not to provide a response

6. How would you ethnically and/or racially identify?
   - Hispanic, Latinx or Spanish origin
   - Multiracial

- Middle Eastern or North African
- Black or African American
- Indigenous or Native American
- Asian descent
- White or European descent
- Pacific Islander
- Other (fill in the blank)
- I choose not to provide a response

7. What is your present estimated annual household income?
   - $0 - $20,000
   - $21,000 - $40,000
   - $41,000 - $60,000
   - $61,000 - $80,000
   - $81,000 - $100,000
   - $100,001 - $120,000
   - $120,001 - $140,000
   - $140,001 - $160,000
   - $160,001 - $180,000
   - $180,001 - $200,000
   - $200,001+
   - I choose not to provide a response

8. What is your highest level of completed school?
   - High school or GED
   - Some college/university classes
   - Bachelor degree
   - Master's degree
   - Ph.D./Psy.D./M.D. or equivalent
   - I choose not to provide a response

9. In your childhood, would you say your parents/caregivers tried to instill spiritual or religious beliefs into your life?
   - Yes, definitely
   - Yes, somewhat
   - I'm not sure
   - No, definitely not
   - Other
   - I choose not to provide a response

10. Rank how much of a role you think spirituality or religion played in the development of your moral foundation:
    - A significant role

- Somewhat of a role
- No role at all
- I choose not to provide a response

11. Currently, would you say you identify with a religion or are a spiritual person?
- Yes
- No
- Not sure
- Other
- I choose not to provide a response

12. Rank how much of a role you think spirituality or religion has played in your life as an adult:
- A significant and beneficial role
- A significant and detrimental role
- Somewhat of a beneficial role
- Somewhat of a detrimental role
- No role at all
- I choose not to provide a response

13. Country/countries which you were a member of their armed forces:
- (fill in the blank)
- I choose not to provide a response

14. Branch of service:
- Army
- Navy
- Air Force
- Marines
- National Guard
- Other
- I choose not to provide a response

15. In what capacity did you serve?
- Active Duty
- Reserve
- Both
- Other
- I choose not to provide a response

16. What was the highest rank level you earned while serving?
- Enlisted member
- Warrant Officer
- Officer

- I choose not to provide a response

17. During your service, what was your primary occupation specialty/job?
    - Artillery
    - Armor
    - Aviation
    - Electronics (e.g., warfare; systems repair)
    - Engineer
    - Infantry
    - Mechanics and Equipment Maintenance
    - Medical
    - Military Intelligence
    - Military Police
    - Signal Corps
    - Special Forces
    - Transportation
    - No primary occupation, I served in multiple jobs for similar lengths of time
    - Other (fill in the blank)
    - I choose not to provide a response

18. As of 2017, how many years has it been since you served in the military?
    - I am currently serving
    - 0 – 10 years
    - 11 – 20 years
    - 21 – 30 years
    - 31 – 40 years
    - 41+ years
    - I choose not to provide an answer

19. While serving in the military, did you ever deploy internationally?
    - Yes
    - No (skip to Moral Injury Questions)

20. If yes, where and in what year(s)?
    - (fill in the blank)
    - I choose not to provide a response

21. While serving in the military, did you ever receive any type of "resiliency training"? (e.g., Comprehensive Soldier and Family Fitness (CSF2); Deckplate Leader Operational Stress Control)
    a. Yes
    b. No
    c. Not sure

d. I choose not to provide a response

22. If yes, did you find the "resiliency training" helpful?
    a. Yes
    b. No
    c. I choose not to provide a response

23. Have you ever received psychological, counselling, or mental health treatment for a service-related issue?
    a. Yes
    b. No
    c. I choose not to provide a response

24. What was the main focus of those services?
    a. Marital, family, or relationship
    b. Alcohol or substance use
    c. Traumatic events/Posttraumatic Stress Disorder
    d. Depression
    e. Other
    f. I choose not to provide a response

25. Rate how helpful these services were for you:
    - 1 (Not at all helpful)   2 (Somewhat helpful)   3 (Very helpful)
    - Not applicable
    - I choose not to provide a response

[CES measure]

[MIES measure]

Moral injury is a concept that has recently gained attention in the academic literature as related to, yet distinct, from Posttraumatic Stress Disorder (PTSD). Moral injury refers to the psychological aftermath experience of a betrayal of "what's right" during a high-stakes situation. This betrayal can occur either because of a personal action or inaction or at the hands of another individual who holds genuine authority over you.

The term moral injury is used to identify sustained negative "…emotional, psychological, behavioral, spiritual and social…" consequences brought on by "…acts that transgress deeply held moral beliefs and expectations…" Its symptoms likely include guilt, shame, anger, re-experiencing, avoidance, emotional numbing, an inability to trust others, despair, suicidality and interpersonal violence. These symptoms must have appeared only after the moral injury event took place and not beforehand.

Please keep this information in mind as you answer the following questions.

1. Before this survey, had you ever heard the term "moral injury" before

   - Yes
   - No
   - I choose not to provide a response

2. In what contexts have you heard "moral injury" used? (Check all that apply)
   - Heard a military member used it in passing
   - Academic literature (e.g., research article)
   - Veterans Affairs hospital/staff member used it
   - Non-Veteran Affairs health provider used it
   - Read it in literature written by a serving member
   - Social media (e.g., Facebook, Twitter, etc.)
   - News outlet
   - Other
   - I've never heard the term before
   - I choose not to provide a response

3. What is your opinion of moral injury? (Check all that apply)
   - I'd never heard the term before
   - I don't know enough about it to have an opinion
   - It's a mental health diagnosis
   - It's a fake label made up by mental health professionals
   - It doesn't exist
   - It's a variation of Posttraumatic Stress Disorder (PTSD)
   - Psychological consequences of a betrayal of "what's right" during a high-stakes situation
   - It means someone is immoral
   - Other
   - I choose not to provide a response

4. Do you believe someone could develop a moral injury from military and/or deployment experiences?
   - Yes
   - No
   - I'm not sure
   - I choose not to provide a response

5. Do you think the term moral injury could be a helpful term in understanding some military and/or deployment experiences?
   - Yes
   - No
   - I choose not to provide a response

6. Do you think medical and mental health professionals exaggerate or tend to make up or unnecessarily create a disorder out of unpleasant military experiences
   - Yes
   - No
   - I choose not to provide a response

7. Moral injury means someone lacks morals.
   - True
   - False
   - I choose not to provide a response

8. Could the idea of moral injury be valuable to mental health professionals as they work with veterans/service members struggling with mental health concerns?
   - Yes
   - No
   - I choose not to provide a response

9. Could the idea of moral injury be valuable to military members?
   - Yes
   - No
   - I choose not to provide a response

10. Moral injury is the psychological aftermath one may experience after a betrayal of "what's right" during a high-stakes situation; or by committing/not acting in a situation that contradicts deeply held moral beliefs. Do you think this description of moral injury adequate?
    - Yes
    - No
    - I choose not to provide a response

11. Is the term or label "moral injury" useful/helpful as a description of a real concern?
    - Yes
    - No
    - I choose not to provide a response

12. Is the term or label "moral injury" stigmatizing, meaning does it assign a negative label to someone?
    - Yes
    - No
    - I choose not to provide a response

13. Pretend you experienced a morally injurious event during your military service. Who would you be MOST LIKELY to turn to for social support first?
    - Family member
    - Significant other

- Friend
- Religious authority figure/Spiritual guide
- Military chaplain
- Comrade
- Superior officer
- Primary physician
- Mental health professional
- Other
- I choose not to provide an answer

14. Pretend you experienced a morally injurious event during your military service. Who would you be LEAST LIKELY to turn to for social support first?
    - Family member
    - Significant other
    - Friend
    - Religious authority figure/Spiritual guide
    - Military chaplain
    - Comrade
    - Superior officer
    - Primary physician
    - Mental health professional
    - Other
    - I choose not to provide an answer

15. Morally injurious events are those experiences that could potentially lead an individual to question their morals or what they assumed was "right." They are assumed to precede the development of a moral injury. Read and respond to the scenarios below as if YOU had experienced it:

    A Navy ship is deployed to rescue civilians from a shipwreck in an ocean. The Navy ship is only able to rescue 75% of the number of civilians in the water, the other 25% of the civilians must be left behind. In your opinion, could this situation classify as a morally injurious event?

    - Yes
    - No
    - I choose not to provide a response

16. Rate how frequently you think YOU would develop a moral injury after the above event:
    - Never
    - Seldom
    - Sometimes
    - Often

- I choose not to provide a response

17. Explain briefly why you might or might not develop a moral injury after the above event?

18. An Army medic lacks the resources to assist severely injured <u>civilians</u> after a battle that included small arms fire, and thereby knowingly leaves many civilians to suffer or die. In your opinion, could this situation classify as a morally injurious event?
- Yes
- No
- I choose not to provide a response

19. Rate how frequently you think YOU would develop a moral injury after the above event:
- Never
- Seldom
- Sometimes
- Often
- I choose not to provide a response

20. Explain briefly why you might or might not develop a moral injury after the above event?

21. An Army medic lacks the resources to assist severely injured <u>enemy combatants</u> after a battle that included small arms fire, and thereby knowingly leaves many enemy combatants to suffer or die. In your opinion, could this situation classify as a morally injurious event?
- Yes
- No
- I choose not to provide a response

22. Rate how frequently you think YOU would develop a moral injury after the above event:
- Never
- Seldom
- Sometimes
- Often
- I choose not to provide a response

23. Explain briefly why you might or might not develop a moral injury after the above event?

24. An Army medic lacks the resources to assist severely injured <u>comrades</u> after a battle that included small arms fire, and thereby knowingly leaves many comrades to suffer or die. In your opinion, could this situation classify as a morally injurious event?
- Yes
- No

- I choose not to provide a response

25. Rate how frequently you think YOU would develop a moral injury after the above event:
    - Never
    - Seldom
    - Sometimes
    - Often
    - I choose not to provide a response

26. Explain briefly why you might or might not develop a moral injury after the above event?

27. A soldier comes across a known enemy combatant who is unarmed and holding his young child. The soldier makes the decision to eliminate the enemy combatant. In the shooting, both the enemy combatant and child are killed. In your opinion, could this situation classify as a morally injurious event?
    - Yes
    - No
    - I choose not to provide a response

28. Rate how frequently you think YOU would develop a moral injury after the above event:
    - Never
    - Seldom
    - Sometimes
    - Often
    - I choose not to provide a response

29. Explain briefly why you might or might not develop a moral injury after the above event?

30. A military member is sexually assaulted by a similar ranking comrade whom they trusted. In your opinion, could this situation classify as a morally injurious event?
    - Yes
    - No
    - I choose not to provide a response

31. Rate how frequently you think YOU would develop a moral injury after the above event:
    - Never
    - Seldom
    - Sometimes
    - Often
    - I choose not to provide a response

32. Explain briefly why you might or might not develop a moral injury after the above event:

33. A military member is deployed internationally. They learn that their comrades have been exploiting local children for sexual favors in return for water, food and blankets. They themselves have not engaged in these activities, but worry about whether to report the observation or not. In your opinion, could this situation classify as a morally injurious event?
    - Yes
    - No
    - I choose not to provide a response

34. Rate how frequently you think YOU would develop a moral injury after the above event:
    - Never
    - Seldom
    - Sometimes
    - Often
    - I choose not to provide a response

35. Explain briefly why you might or might not develop a moral injury after the above event?

36. A service member is the latest in several generations of his/her family to voluntarily join to fight in the war on terror. After deploying various times and experiencing many comrades being killed or permanently injured, the service member is discouraged. They begin to believe the battles serve alternative purposes (e.g., the financial interests of large corporations; for oil; a show of mighty force, etc.) than for freedom and democracy for their country. They have no way of addressing this concern. In your opinion, could this situation classify as a morally injurious event?
    - Yes
    - No
    - I choose not to provide a response

37. Rate how frequently you think YOU would develop a moral injury after the above event:
    - Never
    - Seldom
    - Sometimes
    - Often
    - I choose not to provide a response

38. Explain briefly why you might or might not develop a moral injury after the above event?

39. Is there anything else you'd like to add about your perspective on moral injury (e.g., additional scenario)? (Max 200 words)

40. Did you complete these questions yourself?
   - Yes
   - No

41. Do you wish to submit this survey and have your responses recorded?
   - Yes
   - No

APPENDIX I

Survey – Mental Health Professional Version

1. What is your current age?
    - Younger than 18 (discontinue survey)
    - 18 – 25
    - 26 – 33
    - 34 – 41
    - 42 – 49
    - 50 – 57
    - 58 – 65
    - 66+

2. Have you ever been a member of the military in any country?
    - Yes (sent to military survey)
    - No

3. Do you have training, education or experience with military culture or military mental health areas?
    - Yes
    - No (discontinue survey)

4. Please select your military-related professional experience (check all that apply)
    - Current spouse/partner/close loved one to a service member/veteran
    - Former spouse/partner/close loved one to a service member/veteran
    - Attended a one-day workshop on military mental health
    - Attended a two to three-day workshop on military mental health
    - Attended a 4 or more-day workshop on military mental health
    - Attended an online training workshop on military mental health
    - Read a book(s) on military mental health
    - Previously provided clinical services to military members or veterans
    - Currently provide clinical services to military members or veterans
    - Other
    - I choose not to provide a response

5. Do you currently spend the majority of your work hours providing services to military and veteran individuals/clients?
    - Yes
    - No
    - I currently provide services to military and veteran individuals/clients but spend less than half my work hours doing so
    - I choose not to provide a response

6. Do you currently spend the majority of your work hours providing trauma therapy services to clients?
   - Yes
   - No
   - I currently provide trauma therapy services but spend less than half my work hours doing so
   - I choose not to provide a response

7. How would you identify your gender?
   - Female
   - Male
   - Transgender
   - Other
   - I choose not to provide a response

8. How would you ethnically and/or racially identify?
   - Hispanic, Latinx or Spanish origin
   - Multiracial
   - Middle Eastern or North African
   - Black or African American
   - Indigenous or Native American
   - Asian descent
   - White or European descent
   - Pacific Islander
   - Other
   - I choose not to provide a response

9. What is your present estimated annual household income?
   - $0 - $20,000
   - $21,000 - $40,000
   - $41,000 - $60,000
   - $61,000 - $80,000
   - $81,000 - $100,000
   - $100,001 - $120,000
   - $120,001 - $140,000
   - $140,001 - $160,000
   - $160,001 - $180,000
   - $180,001 - $200,000
   - $200,001+
   - I choose not to provide a response

10. What is your highest level of completed school?
    - High school or GED

- Some college/university classes
- Bachelor's degree
- Master's degree
- Ph.D./Psy.D./M.D. or equivalent
- I choose not to provide a response

11. In your childhood, would you say your parents/caregivers tried to instill spiritual or religious beliefs into your life?
- Yes, definitely
- Yes, somewhat
- No, but my family did
- No, definitely not
- Other
- I choose not to provide a response

12. Rank how much of a role you think spirituality or religion played in the development of your moral foundation:
- A significant role
- Somewhat of a role
- No role at all
- I choose not to provide a response

13. Currently, would you say you identify with a religion or are a spiritual person?
- Yes
- No
- Not sure
- Other
- I choose not to provide a response

14. Rank how much of a role you think spirituality or religion has played in your life as an adult:
- A significant and beneficial role
- A significant and detrimental role
- Somewhat of a beneficial role
- Somewhat of a detrimental role
- No role at all
- I choose not to provide a response

Moral injury is a concept that has recently gained attention in the academic literature as related to, yet distinct, concept from Posttraumatic Stress Disorder (PTSD). Moral injury refers to the psychological aftermath experience of a betrayal of "what's right" during a high-stakes situation. This betrayal can occur either because of a personal action or inaction or at the hands of another individual who holds genuine authority over you.

The term moral injury is used to identify sustained negative "…emotional, psychological,

behavioral, spiritual and social…" consequences brought on by "…acts that transgress deeply held moral beliefs and expectations…" The symptoms of moral injury likely include guilt, shame, anger, re-experiencing, avoidance, emotional numbing, an inability to trust others, despair, suicidality and interpersonal violence. These symptoms must have appeared only after the moral injury event took place and not beforehand.

Please keep this information in mind as you answer the following questions.

42. Before this survey, had you ever heard the term "moral injury" before?
- Yes
- No
- I choose not to provide a response

43. In what contexts have you heard "moral injury" used? (Check all that apply)
- Heard a military member used it in passing
- Academic literature (e.g., research article)
- Veterans Affairs hospital/staff member used it
- Non-Veteran Affairs health provider used it
- Read it in literature written by a serving member
- Social media (e.g., Facebook, Twitter, etc.)
- News outlet
- Other
- I've never heard the term before
- I choose not to provide a response

44. What is your opinion of moral injury? (Check all that apply)
- I'd never heard the term before
- I don't know enough about it to have an opinion
- It's a mental health diagnosis
- It's a fake label made up by mental health professionals
- It doesn't exist
- It's a variation of Posttraumatic Stress Disorder (PTSD)
- Psychological consequences of a betrayal of "what's right" during a high-stakes situation
- It means someone is immoral
- Other
- I choose not to provide a response

45. Do you believe someone could develop a moral injury from military and/or deployment experiences?
- Yes
- No
- I'm not sure
- I choose not to provide a response

46. Do you think the term moral injury could be a helpful term in understanding some military and/or deployment experiences?
- Yes
- No
- I choose not to provide a response

47. Do you think medical and mental health professionals exaggerate or tend to make up or unnecessarily create a disorder out of unpleasant military experiences?
- Yes
- No
- I choose not to provide a response

48. Moral injury means someone lacks morals.
- True
- False
- I choose not to provide a response

49. Could the idea of moral injury be valuable to mental health professionals as they work with veterans/service members struggling with mental health concerns?
- Yes
- No
- I choose not to provide a response

50. Could the idea of moral injury be valuable to military members?
- Yes
- No
- I choose not to provide a response

51. Moral injury is the psychological aftermath one may experience after a betrayal of "what's right" during a high-stakes situation; or by committing/not acting in a situation that contradicts deeply held moral beliefs. Do you think this description of moral injury adequate?
- Yes
- No
- I choose not to provide a response

52. Is the term or label "moral injury" useful/helpful as a description of a real concern?
- Yes
- No
- I choose not to provide a response

53. Is the term or label "moral injury" stigmatizing, meaning does it assign a negative label to someone?
- Yes
- No

- I choose not to provide a response

54. Pretending your client experienced a morally injurious event during your/their military service. Who would they be MOST LIKELY to turn to for social support first?
    - Family member
    - Significant other
    - Friend
    - Religious authority figure/Spiritual guide
    - Military chaplain
    - Comrade
    - Superior officer
    - Primary physician
    - Mental health professional
    - Other
    - I choose not to provide an answer

55. Pretending your client experienced a morally injurious event during their military service. Who would they be LEAST LIKELY to turn to for social support first?
    - Family member
    - Significant other
    - Friend
    - Religious authority figure/Spiritual guide
    - Military chaplain
    - Comrade
    - Superior officer
    - Primary physician
    - Mental health professional
    - Other: _____
    - I choose not to provide an answer

56. Morally injurious events are those experiences that could potentially lead an individual to question their morals or what they assumed was "right." They are assumed to precede the development of a moral injury. Read and respond to the scenarios below:

    A Navy ship is deployed to rescue civilians from a shipwreck in an ocean. The Navy ship is only able to rescue 75% of the number of civilians in the water, the other 25% of the civilians must be left behind. In your opinion, could this situation classify as a morally injurious event?
    - Yes
    - No
    - I choose not to provide a response

57. Rate how frequently you think a service member would develop a moral injury after the above event:

- Never
- Seldom
- Sometimes
- Often
- I choose not to provide a response

58. Explain briefly why someone might or might not develop a moral injury after the above event?

59. An Army medic lacks the resources to assist severely injured <u>civilians</u> after a battle that included small arms fire, and thereby knowingly leaves many civilians to suffer or die. In your opinion, could this situation classify as a morally injurious event?
- Yes
- No
- I choose not to provide a response

60. Rate how frequently you think a service member would develop a moral injury after the above event:
- Never
- Seldom
- Sometimes
- Often
- I choose not to provide a response

61. Explain briefly why someone might or might not develop a moral injury after the above event?

62. An Army medic lacks the resources to assist severely injured <u>enemy combatants</u> after a battle that included small arms fire, and thereby knowingly leaves many enemy combatants to suffer or die. In your opinion, could this situation classify as a morally injurious event?
- Yes
- No
- I choose not to provide a response

63. Rate how frequently you think a service member would develop a moral injury after the above event:
- Never
- Seldom
- Sometimes
- Often
- I choose not to provide a response

64. Explain briefly why someone might or might not develop a moral injury after the above event?

65. An Army medic lacks the resources to assist severely injured <u>comrades</u> after a battle that included small arms fire, and thereby knowingly leaves many comrades to suffer or die. In your opinion, could this situation classify as a morally injurious event?
- Yes
- No
- I choose not to provide a response

66. Rate how frequently you think a service member would develop a moral injury after the above event:
- Never
- Seldom
- Sometimes
- Often
- I choose not to provide a response

67. Explain briefly why someone might or might not develop a moral injury after the above event?

68. A soldier comes across a known enemy combatant who is unarmed and holding his young child. The soldier makes the decision to eliminate the enemy combatant. In the shooting, both the enemy combatant and child are killed. In your opinion, could this situation classify as a morally injurious event?
- Yes
- No
- I choose not to provide a response

69. Rate how frequently you think a service member would develop a moral injury after the above event:
- Never
- Seldom
- Sometimes
- Often
- I choose not to provide a response

70. Explain briefly why someone might or might not develop a moral injury after the above event?

71. A military member is sexually assaulted by a similar ranking comrade whom they trusted. In your opinion, could this situation classify as a morally injurious event?
- Yes
- No
- I choose not to provide a response

72. Rate how frequently you think a service member would develop a moral injury after the above event:
- Never
- Seldom
- Sometimes
- Often
- I choose not to provide a response

73. Explain briefly why someone might or might not develop a moral injury after the above event?

74. A military member is deployed internationally. They learn that their comrades have been exploiting local children for sexual favors in return for water, food and blankets. They themselves have not engaged in these activities but worry about whether to report the observation or not. In your opinion, could this situation classify as a morally injurious event?
- Yes
- No
- I choose not to provide a response

75. Rate how frequently you think a service member would develop a moral injury after the above event:
- Never
- Seldom
- Sometimes
- Often
- I choose not to provide a response

76. Explain briefly why someone might or might not develop a moral injury after the above event?

77. A service member is the latest in several generations of his/her family to voluntarily join to fight in the war on terror. After deploying various times and experiencing many comrades being killed or permanently injured, the service member is discouraged. They begin to believe the battles serve alternative purposes (e.g., the financial interests of large

corporations; for oil; a show of mighty force, etc.) than for freedom and democracy for their country. They have no way of addressing this concern. In your opinion, could this situation classify as a morally injurious event?

- Yes
- No
- I choose not to provide a response

78. Rate how frequently you think a service member would develop a moral injury after the above event:
- Never
- Seldom
- Sometimes
- Often
- I choose not to provide a response

79. Explain briefly why someone might or might not develop a moral injury after the above event?

80. Is there anything else you'd like to add about your perspective on moral injury (e.g., additional scenario)? (Max 200 words)

81. Did you complete these questions yourself?
- Yes
- No

82. Do you wish to submit this survey and have your responses recorded?
- Yes
- No

Online Recruitment Advertisement

ONLINE SURVEY RESEARCH PARTICIPANTS NEEDED

You are invited to complete an online survey for a Western Michigan University's Psychology Department research project. This project is designed to compare military members' and veterans' perspectives on the concept of 'moral injury' with those held by mental health professionals. Moral injury is a new research area focused on psychological consequences that may occur after a betrayal of "what's right" during high-stakes situations, such as a military deployment. In addition to service members, this survey is open to any mental health professional with formal training in the military culture (e.g., attended a professional workshop, work with military clients, work in a VA-setting) who is aged 18 or older. Mental health professionals who have also personally served in the military are invited to participate as well.

If you choose to participate, you will be asked to respond to survey questions about your perspectives on moral injury. **No previous understanding of moral injury is needed.** The survey will take approximately 30 minutes to complete and your responses will be anonymous and kept confidential.

Clicking the survey link below will take you to a page asking you to read through a consent form. This consent form explains the purpose of this research, the type of questions you will be asked, the amount of time it may take, and the risks and benefits of your participation. At the end of the form you can click "AGREE" to consent to the use of the answers you provide and to begin completing the survey.

[survey link]

Thank you for your time and interest.

Moral Development Scale Questions

This made-for-study measure identifies possible correlations of personal spiritual or religious involvement and moral development for each participant. It is comprised of the four questions administrated to gauge respondents' personal views on their own experiences.

1. In your childhood, would you say your parents/caregivers tried to instill spiritual or religious beliefs into your life?
   - Yes, definitely = 3
   - Yes, somewhat = 2
   - I'm unsure = 0
   - No, definitely not = 1
   - Other = 0
   - I choose not to provide a response = 0

2. Rank how much of a role you think spirituality or religion played in the development of your moral foundation:
   - A significant role = 2
   - Somewhat of a role = 1
   - No role at all = 0
   - I choose not to provide a response = 0

3. Currently, would you say you identify with a religion or are a spiritual person?
   - Yes = 2
   - Unsure = 0
   - No = 1
   - Other = 0
   - I choose not to provide a response = 0

4. Rank how much of a role you think spirituality or religion has played in your life as an adult:
   - A significant and beneficial role = 2
   - A significant and detrimental role = 2
   - Somewhat of a beneficial role = 1
   - Somewhat of a detrimental role = 1
   - No role at all = 0
   - I choose not to provide a response = 0

Scoring Interpretation
0 - 1 = Insufficient information
2 - 3 = Minor amount of possible correlation of personal spiritual or religious involvement and moral development

4 – 6 = Moderate amount of possible correlation of personal spiritual or religious involvement and moral development

7 - 9 = Major amount of possible correlation of personal spiritual or religious involvement and moral development

APPENDIX L

Moral Injury Survey Questions

This made-for-study measure identifies a possible correlation between familiarity with the moral injury academic literature and favorable support for the construct.

_____

1. Before this survey, had you ever heard the term "moral injury" before?
   - Yes = 1
   - No = 0
   - I choose not to provide a response = 0

2. In what contexts have you heard "moral injury" used? (Check all that apply; 1 score indicated per documented response)
   - Heard a military member used it in passing = 1
   - Academic literature (e.g., research article) = 1
   - Veterans Affairs hospital/staff member used it = 1
   - Non-Veteran Affairs health provider used it = 1
   - Read it in literature written by a serving member = 1
   - Social media (e.g., Facebook, Twitter, etc.) = `
   - News outlet = 1
   - Other = 1
   - I've never heard the term before = 0
   - I choose not to provide a response = 0

3. Do you believe someone could develop a moral injury from military and/or deployment experiences?
   - Yes = 1
   - No = 0
   - I'm not sure = 0
   - I choose not to provide a response = 0

4. Do you think the term moral injury could be a helpful term in understanding some military and/or deployment experiences?
   - Yes = 1
   - No = 0
   - I choose not to provide a response = 0

5. Moral injury means someone lacks morals.
   - True = 0
   - False = 1
   - I choose not to provide a response = 0

6. Could the idea of moral injury be valuable to mental health professionals as they work with veterans/service members struggling with mental health concerns?
   - Yes = 1
   - No = 0
   - I choose not to provide a response = 0

7. Could the idea of moral injury be valuable to military members?
   - Yes = 1
   - No = 0
   - I choose not to provide a response = 0

8. Is the term or label "moral injury" useful/helpful as a description of a real concern?
   - Yes = 1
   - No = 0
   - I choose not to provide a response = 0

9. Is the term or label "moral injury" stigmatizing, meaning does it assign a negative label to someone?
   - Yes = 0
   - No = 1
   - I choose not to provide a response = 0

Interpretation
0 – 4 = Vaguely familiar with the moral injury construct
5 - 8 = Minimally familiar with the moral injury construct
9 - 11 = Moderately familiar with the moral injury construct
12 – 16 = Highly familiar with the moral injury construct, likely well-versed in the moral injury academic literature