The Spiritual Dimension of Moral Injury and PTSD

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Abstract This chapter aims to carefully distinguish Post-Traumatic Stress Disorder (PTSD) from Moral Injury (MI) and review the role of the spiritual dimension in the causation, healing, and prevention of both syndromes. We argue that by giving due consideration to this spiritual dimension, the U.S. military can better prepare soldiers to encounter potentially morally injurious events (PMIEs) in deployment and combat.

Keywords Post-traumatic stress disorder · Moral injury · Combat · Troops morale

1 Introduction

Moral Injury (MI) research has gained considerable traction for its potential to aid in the diagnosis and treatment of symptoms coinciding with other mental health concerns. In recent years, MI has been found to frequently coexist with most Post-Traumatic Stress Disorder (PTSD) cases among active duty and retired United States military veterans. The result has been that MI is often conflated with PTSD rather than treated as a separate syndrome. In order to better understand each syndrome and adequately care for the whole soldier, we argue there is a need to (1) clearly distinguish MI from PTSD and (2) consider the spiritual dimension that contributes to their comorbidity. As a result, this chapter will define and clearly distinguish MI from PTSD and explore the spiritual dimension of both syndromes in terms of causality, healing, and prevention. We argue that by giving due consideration to this spiritual dimension, the military can better prepare soldiers to encounter potentially morally injurious events (PMIEs) in deployment and combat.

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2 PTSD: Definition and History

In order to best distinguish MI from PTSD, we will begin with a very brief overview and history of PTSD and then summarize the diagnostic criteria for PTSD and its associated symptom clusters. As Garcia [12] outlines, PTSD was first included in the *DSM-III* in 1980 but had a much longer conceptual history in psychiatry, beginning in the late nineteenth century. It was British railway passengers that inspired the first inquiry into what we now call PTSD. Post Office employees who had suffered crashes on the poorly-constructed lines were suffering from sleep disturbances, chronic pain, and fear of railway travel—a phenomenon then called 'railway spine.' Lasiuk and Hegadoren [25] describe the effects of this phenomenon and the questions it raised as follows:

It was during these early debates concerning the etiology of railway spine that many fundamental questions about the nature of psychological trauma began to arise. Is the disorder organic or psychological in origin? Is it the event itself or the subjective interpretation of the event that is the source of the trauma? (p. 16).

These questions are important ones. Unfortunately, sustained focus on finding answers to them did not follow—at least not right away.

Van der Kolk et al. [44] and Herman [14] clarify that serious investigation into the lasting and life-altering effects of trauma has received intermittent attention and focus in psychiatry. However, the research of Myers [30, 31], Da Costa [9], and Kardiner [17] focused specifically on trauma in military contexts and laid the groundwork for PTSD's ultimate inclusion in the DSM. In fact, it is research focusing on trauma in military contexts that ushered forth a renewed interest and heightened emphasis on understanding PTSD.

The most current diagnostic criteria for PTSD entails an exposure or a history of exposure to a traumatic event or events causing patients to identify with some or all of the following symptom clusters: "intrusion," "avoidance," "negative alterations in cognition or mood," and "alterations in arousal and reactivity" [1, p. 271]. Patients who are clinically diagnosed with PTSD have experienced a disturbance of symptoms associated with these clusters, unrelated to the ingestion of any substances, and the symptoms have persisted for at least one month, "causing clinically significant distress or impairment in social, occupational, or other important areas of functioning" [1, p. 272]. Table 1 summarizes common experiences associated with each of the four symptom clusters.

These symptom clusters are essential for advancing our argument—they help clarify a distinction between PTSD and MI, highlighting the fear-based nature of PTSD. Van der Kolk [43] describes the roots of PTSD symptoms quite well:

Ideally, our stress hormone system should provide a lightning-fast response to threat, but then quickly return us to equilibrium. In PTSD patients, however, the stress hormone system fails at this balancing act. Fight/flight/freeze signals continue after the danger is over and… do not return to normal. Instead, the continued secretion of stress hormones is expressed as agitation and panic, and in the long term, wreaks havoc on their health (p. 30).

Table 1 PTSD symptom clusters and associated experiences[1]

PTSD symptom clusters	Common experiences
Intrusion	Intrusive memories, dreams, or flashbacks to events or circumstances that cue the remembrance of a traumatic event
Avoidance	Deliberate efforts to suppress or avoid feelings, thoughts, memories, and/or reminders associated with a traumatic event
Negative alterations in cognition or mood	Inability to remember features of a traumatic event, prolonged negative emotional state and/or negative beliefs about oneself, others, or the world, distorted beliefs about the cause or consequences of a traumatic event, and diminished interest in purposive activities and/or relationships
Alterations in arousal and reactivity	Difficulty concentrating and/or sleeping, hypervigilance and/or exaggerated startle response, irritability, outbursts, and impulsive, self-destructive behavior

As Van der Kolk [43] describes, patients or soldiers suffering from PTSD have an altered stress hormone system. When aroused in the face of threatening stimuli, they fail to return to equilibrium. Moreover, they will take more extreme measures to avoid triggers that elicit memories surrounding the trauma, and they tend to remain vigilant, often in fearful anticipation. They live life as if the trauma is ongoing and enduring.

Research on soldiers returning from Afghanistan has recently brought deeper insights about PTSD to the fore. Chief among these insights is the sheer frequency of the disorder. In studying soldiers deployed in Iraq and Afghanistan, Ramchand et al. [38] found that "PTSD appears to affect between 5 and 20% of previously deployed service members" (p. 28). Some estimate that nearly 23% of those who served in Afghanistan and Iraq following September 11, 2001 experience PTSD symptoms [27]. Deployment is specifically related to an increased risk of PTSD due to the frequency with which soldiers are exposed to both traditional combat events and episodes of extraordinarily abusive violence [38]. Ultimately, increased exposure to trauma yields an increased likelihood of developing PTSD.

Though exposure to trauma is, no doubt, the single most significant risk factor in the development of PTSD, it does not tell the whole story. In other words, exposure to trauma is a necessary condition for the development of PTSD; it is not sufficient. *Understanding PTSD requires making a clear distinction between the traumatic event itself and the subjective experience of a traumatic event.* Included in that subjective interpretation would be the narrative an individual uses to describe an event, attributions of blame or guilt associated with an event, moral evaluations of the event,

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[1] The PTSD symptom clusters in Table 1 are reflected exactly as they appear in the APA's DSM-5 [1, pp. 271–272]. The common experiences identified within this table also appear in the DSM-5, but our descriptions of these experiences have been summarized for inclusion in this table.

and how the experience of an event interacts with an individual's unique experiences. For example, witnessing the violent abuse of a non-combatant may affect a victim of child abuse more significantly, given their history of trauma. As Lasiuk and Hegadoren [25] note, an acknowledgment that patients who have PTSD are embodied human beings that uniquely interact with their environments is essential to properly understanding the disorder and treating it.

Furthermore, research shows several existential factors highly correlate with the development of PTSD or are demonstrated to increase the risk of development. For instance, Oren and Possick [33] suggest that "when ideology is congruent with political reality, it may serve as a powerful resilience factor in extreme stress. In contrast, when ideology clashes with reality, it is positively associated with pathological symptoms" (p. 488). In other words, ideology could be a significant risk factor in developing PTSD, especially when those ideological commitments are challenged and repudiated by the political and existential realities surrounding extreme stress or trauma. As Oren and Possick [33] suggest, the specific content of ideological commitments is essential in evaluating their ability to hinder or help to cope following the experience of an extreme stressor or trauma.

More specifically, a significant relationship between PTSD and spirituality has also emerged in the secondary literature [21, 34, 35]. Currier et al. [8] have demonstrated that adaptive and maladaptive spiritual exercises directly correlate with levels of PTSD symptomology.

Veterans who endorsed more daily spiritual experiences, practiced prayer or meditation in a more regular manner, endorsed greater levels of forgiveness (for self, others, and from God or Higher Power), incorporated positive religious coping strategies (e.g., collaborating with God or Higher Power to solve problems, look to divine realm for strength), or were engaged in a church or other community all showed lower levels of PTSD symptomatology at discharge (p. 62).

These findings show the strong correlation between spirituality, a soldier's ability to cope with traumatic stress, and the nature or degree of PTSD symptoms. Some, such as Park et al. [34, 35], argue a reciprocal relationship between spirituality and trauma exists. An individual's meaning-making process informs the way one processes trauma. Conversely, experiences of trauma profoundly impact one's existential position. Traumatic events are moments when big questions about the value of human life, mortality, the existence of God, the reality of human suffering, and so on are encountered—sometimes for the first time.

The research on psychological inflexibility and PTSD also highlights this fact. Psychological inflexibility has been shown to predict the severity of PTSD symptoms in war veterans [27]. Though psychological inflexibility is a nebulous term, drawing upon the work of Bond et al. [3] and Meyer et al. [27] define it as "the rigid dominance of psychological reactions to unwanted internal experiences over contextual factors and personal values in guiding behavior" (p. 384). Essentially, psychological inflexibility occurs when an individual lets negative emotions guide their actions and behavior over their values or goals—a proclivity ripe for the development of cognitive dissonance and mental anguish.

All of this data points to the interesting entanglement of belief—spiritual, ideological, political, or ethical—and the development of pathological symptoms or the prevention of them. It can be deduced from this data that forming balanced meaning-making values is crucial in the formation of soldiers as it informs their subjective conceptualization of traumatic events and subsequent coping with traumatic events. A deeper exploration into the concept of MI will further substantiate this speculation. In the following section, we will now turn toward this exploration of MI.

3   Moral Injury: Definition and History

MI research began in 2003 with the publication of Jonathan Shay's book, *Achilles in Vietnam: Combat Trauma and the Undoing of Character,* to describe the so-called 'character wounds' that veterans and active-duty military service members commonly face. For the purposes of this chapter, we understand MI in light of Hall et al.'s [13] definition, which is derived from a systematic review of the MI literature. They define MI as follows: "Distress (due to guilt, shame, disgust, withdrawal, self-condemnation, etc.) following situations involving moral transgressions" [13], p. 93.

The notion of 'moral transgressions' should be carefully qualified. The sort of moral transgressions that result in potentially morally injurious events (PMIEs) are significant and fundamentally upend a soldier's conception of justice, violate deeply-held convictions, and challenge the notion that there is meaning in the world. For example, Shay [40] argues that soldiers face MI in the wake of betrayals of trust, unjust killing, the falling of a comrade, and so on. Such experiences posit a "violation of assumptions and beliefs about right and wrong," resulting in existential "dissonance and conflict" [26]. Typical symptoms of MI that are associated with moral transgressions include the loss of trust, shame, grief, remorse, the loss of hope, meaning, and/or purpose in life, depression, anxiety, anger, burnout, the loss of belief in God, and the heightened potential for substance abuse as well as other patterns of self-handicapping [4, 13, 16, 21].

While MI research is relatively recent, these phenomenological experiences associated with Hall et al.'s [13] definition are as old as wars themselves. Shay [40], for example, speaks of the 'character wounds' that haunted military personnel in Homer's *Iliad* and *Odyssey* and connected these wounds to similar struggles faced by U.S. veterans for whom MI remains a grave concern. Because Shay's work suggests that Homer's epics can be read as narratives that may have been written, at least in part, "for veterans as a way of communalizing their grief and trauma" and as spiritual expressions of "the universal experience of human beings at war," he maintains that these epics have something to teach us about the experience of MI today and about how to care for those who exhibit its aforementioned symptoms [2, p. 160].

Similarly, Koenig and Al Zaben [21] indicate that a deeper understanding of the MI concept is aided by the existential tension described within Homer's epics and that MI corresponds to the Ancient Greek account of *miasma*, which described the psychological impact of experiencing "moral defilement" on the battlefield (p. 2990).

Table 2 Bi-directional types of MI and their associated causes

MI symptom types	Causes
Self-directed	Something a soldier *does* or *does not do*
Other-directed	Something *done to* or *witnessed by* a soldier

Miasma, Koenig and Al Zaben [21] suggest, is "applicable to any transgression of moral values, whether applied to the perpetrator, the victim, or even the observer" (p. 2990). *Miasma,* therefore, is best understood as an ancient way of describing and extending the research on MI.

Recognizing the enduring patterns of MI from Homer's epics onward and the connection between MI and the Ancient Greek concept of *miasma* allows us to see that MI symptoms can be experienced in multiple directions. The existing literature on MI and the associated scales for its assessment corroborates this. For example, Koenig and Al Zaben [21] indicate that MI scales "typically assess self-directed symptoms (guilt, shame, self-condemnation) and other-directed symptoms (anger toward others, feelings of betrayal)" (p. 2991). That being said, research indicates that MI can be experienced as a result of something that a soldier *does* or *does not do,* something *done to* a soldier, or something *witnessed by* a soldier that causes the soldier to question matters such as meaning, purpose, hope, and transgression. We classify these bi-directional types of MI and their associated causes in Table 2, where we demonstrate in more detail *how* and *why* these four causes specifically correspond to PMIEs in military contexts.

3.1 Something Done by a Soldier

First, MI can result when a soldier *acts* in such a way that directly conflicts with personally held values and commitments. While cognitive dissonance is common when moral agents act in ways contrary to their conscience or deeply held beliefs, there could be a heightened sense of dissonance and guilt that results when individuals are feeling *forced* to act in such a way that is morally compromising and when the matter is serious and grave. The context of war makes both of these circumstances more likely. For example, the hierarchical structure of the military and its emphasis on authority, rank, and duty makes soldiers especially prone to experiencing this. Soldiers may know an order is unjust, realize they don't want to perform the order, and still feel pressured to carry it out despite this self-awareness. The tension between duty and a soldier's personally held convictions is borne out here. What does a soldier do when there is a duty to act in such a way that compromises one's personal values or conscience?

Because modern war is characterized by tactics that "often result in ambiguous, split-second decisions, in which the sanctioned course of action is not readily apparent or results in collateral harm" [18, p. 741], it is particularly rife for PMIEs. Many such

tactics appear to be relevant for understanding the context of the war in Afghanistan, where "urban combat and insurgency environments, unmarked combatants, constant civilian threats, and widespread use of improvised explosive devices (IEDs)" were typical [18, p. 741].[2]

3.2 Something Not Done by a Soldier

Second, a soldier could experience MI when they fail to act in a way consistent with their deeply held moral convictions, especially when the stakes are high. Another way of understanding this is that "acts of omission" can also be fertile ground for PMIEs [23]. Imagine a soldier who deeply values courage and self-sacrifice but who failed to tend to an injured comrade in order to escape deadly gunfire. There is no fault in saving one's own life; however, the weight of perceived cowardice is heavy. So, failure to act can weigh just as heavily on a soldier, producing the same capacity for shame and regret as an actively performed action.

3.3 Something Done to a Soldier

Third, PMIEs can occur when a moral transgression is enacted upon a soldier. There are a variety of instances that could result in this particular sort of MI. For example, soldiers captured as prisoners of war could be subject to extreme torture and struggle to maintain hope amidst intense suffering; soldiers could receive unjust orders or be the recipient of unfair treatment, abuse, and so on. One can imagine the dissonance that would arise when a soldier is, for example, the victim of sexual assault while fighting in a war for 'freedom.' It is challenging to maintain fervor and hope for a cause when the actors in pursuit of it are unjust, especially when the soldier is the victim of injustice.

3.4 Something Witnessed by a Soldier

Fourth, a PMIE could result from witnessing an act or continuous behavior that causes a soldier to seriously doubt that the world is just, good, or meaningful. Much of the secondary literature on MI points to a few apt examples—seeing the death of a child, an unarmed civilian, or witnessing the torture of a prisoner of war are just a few examples. Moreover, PMIEs could be significantly more impactful and traumatic when the perpetrator is someone of higher rank, an authority figure, or someone previously thought to be an upstanding comrade. Shay's [41] understanding of MI is

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[2] Also see, Forkus et al. [10], Lancaster and Erbes [23], and Lancaster and Irene Harris [24].

particularly sensitive to this reality: "(a) a betrayal of 'what's right'; (b) by someone who holds legitimate authority; (c) in a high-stakes situation" (p. 183). While we are not employing Shay's definition for the purposes of this chapter, it does highlight how much more deeply MI of this sort can cut when an authority figure perpetrates the moral transgression.

In the next section, we summarize the connection between as well as the distinguishing features of PTSD and MI. Following this summary, which is based on our literature survey, we will turn our attention to the impact that MI and PTSD, experienced together, tend to have on the spiritual dimension of soldiers' wellbeing.

4   The Need to Distinguish PTSD and MI

Evidence from emerging research on MI suggests that there is a strong correlation between PTSD and MI, "with nearly 90% of participants [exhibiting PTSD] indicating a rating of 9 or 10 in severity (on a 1–10 scale) for at least one [MI] symptom and 50% indicating this for more than five symptoms" [19, p. 257]. While the statistical significance of PTSD and MI coinciding seems abundantly clear in most cases where PTSD is evident, there remains a need to understand the unique features of each syndrome to address symptoms pertaining to both wholly. Otherwise, there is a risk of conflating these syndromes and consequently neglecting to consider more holistic measures for healing and prevention. This is why we have begun our chapter with an analysis of the unique histories associated with PTSD and MI, *understood as distinct syndromes.*

Indeed, it has been acknowledged that some degree of "definitional overlap" exists between these two terms [19, p. 2990]. Still, most of this overlap can be understood as the result of accounts about PTSD that go beyond the bounds of its cluster symptoms and attempt to grapple with transgressions involving moral and spiritual distress without reference to the MI concept. For example, Wortmann et al. [45] indicate that the link between trauma and PTSD symptoms may be mediated by a moral and spiritual struggle entailing "negative cognitions" related to "understanding or responding to stressful events," and they do this without reference to MI. The result is that their account of PTSD includes additional cluster symptoms associated with heightened PTSD severity that are not captured by the DSM-5, such as "negative beliefs about the self (e.g., I am damaged, inadequate, or unacceptable), the world (e.g., others are dangerous and untrustworthy), and self-blame" [45, p. 2]. Notice how closely associated these themes are with the ancient account of *miasma* and the character wounds typically related to MI. What if, instead of expanding the list of PTSD symptoms to include this additional cluster, Wortmann et al. [45] had argued that emerging evidence supports the fact that MI symptoms mediate PTSD?

Our argument in this chapter is much more closely associated with that alternative way of understanding the mediating role of moral and spiritual struggle in cases of PTSD. The latest research on PTSD and MI supports this conclusion and maintains that they are best understood as "separate syndromes" with a high potentiality

for comorbidity [21, p. 2994]. Koenig et al. [19], for example, argue that the two syndromes, although overlapping, may be distinguished as follows:

PTSD is a trauma-based disorder characterized by a cluster of symptoms that include re-experiencing, hyperarousal, avoidance/numbing, and hypervigilance, while MI is a syndrome characterized by psychological and religious/spiritual symptoms of inner conflict (p. 250).

Similarly, Hall et al. [13] posit that PTSD can be distinguished from MI as a "danger- or fear-based disorder" inciting trauma, whereas MI, particularly self-directed MI, is most commonly attributed to the character wounds of "shame or guilt" as well as betrayal and the loss of hope, causing spiritual tension that corresponds to a violation of one's moral convictions (p. 93). Therefore, with the aforementioned research from our survey of the literature on PTSD and MI in mind, we have chosen to distinguish MI from PTSD by focusing in the previous section on the existential tension incurred by military personnel when assumptions about right and wrong are challenged during their service, creating moral dissonance and spiritual conflict about matters of conviction. To distinguish PTSD from MI, we focused in the PTSD section on the fear-based nature of PTSD as opposed to the conviction-based nature of MI. Now in what follows, we attempt to demonstrate how scholars such as Wortmann et al. [45] could better understand the mediating link between spiritual struggle and heightened PTSD symptoms by incorporating the emerging research on MI that supports this link while still maintaining the distinction between these two syndromes.

5   Toward a Better Understanding of the Spiritual Dimension of MI and Its Association with Heightened PTSD Symptoms

Despite the emerging link between the spiritual dynamics of MI and heightened PTSD symptoms, there remains a lack of consensus in the secondary literature regarding how one ought to understand the impact that spirituality and MI have on PTSD symptom severity. In addition to the problematic conflation of PTSD and MI, we suggest that this lack of consensus exists for two other important reasons. First, accounts of the whole soldier are only beginning to emphasize a spiritual dimension that is set apart from the body and mind but which has implications for both. Second, the literature on MI is only beginning to acknowledge the spiritual nature of the existential tension that has been historically associated with MI. We address each of these problems briefly in turn. Following our account of these two problems, we seek to clarify the mediating link between the spiritual struggle of MI and heightened PTSD symptom severity.

5.1   The Need to Emphasize the Spiritual Dimension of Soldiers

In recent years, the Military Health System [28, 29] has made considerable attempts to think holistically about former and active-duty service members' human nature as a way of promoting their wellbeing. They have done this via their Total Force Fitness (TFF) program. Yet, much of the focus of TFF still seems to emphasize how various phenomena impact soldiers' bodies and minds—with the vast majority of the attention being focused on psychological resilience. For this reason, Potts [37] argued that the military ought to revise its two-dimensional understanding of soldiers as inhabiting bodies and minds with a tri-dimensional understanding of soldiers as occupying a physical, mental, and spiritual dimension. Doing so, argues Potts [37], helps us to see and attend to the unique needs that make up soldiers' spiritual dimension, such as the need for "transcendent connection," "meaning/purpose," "moral values/beliefs," and "spiritual practices" like prayer and contemplation which help to mitigate symptoms associated with trauma and PMIEs. Potts [37] demonstrates that once the spiritual dimension is set apart from the mental and physical, it is also easier to see how this core dimension of every soldier impacts all of the other elements of TFF as outlined by the Military Health System [28]. We maintain that this need to emphasize the distinctiveness of soldiers' spiritual dimension and its significance for their spiritual health—not to mention their physical and psychological resilience—remains.

Others have also recently accounted for the frequent neglect of the spiritual dimension of our humanity within military research that attempts to understand the whole soldier. Pearce et al. [36] and Koenig and Al Zaben [21], for example, maintain that there is a spiritual dimension of every person which appears to be minimized or overshadowed by the psychological dimension in explanations of trauma, what mediates it, and how to mitigate it. We agree with these scholars that this minimal understanding of the spiritual dimension of soldiers helps to make sense of the diminished significance of spirituality in general as it pertains to MI research and common symptoms experienced after PMIEs, which we review in the next sub-section.

5.2   The Need to Acknowledge the Spiritual Implications of MI and PMIEs

Much like the need to acknowledge a spiritual dimension to every soldier, there remains a need to recognize what has been described as the "spiritual core" of MI syndrome [21, p. 2990]. While emergent MI research is beginning to reveal that there is a spiritual struggle that must be seen [5, 7, 11, 16, 22], however, earlier MI research often minimized or even excluded this so-called spiritual struggle [8, 26, 32]. Following Koenig and Al Zaben [21], we acknowledge the spiritual core of

morally injurious events and assert its relevance in treating comorbid cases of MI and PTSD.

Another way of stating this problem is as follows. While it has been widely recognized that MI symptoms can be experienced in multiple directions (self- and other-directed), it is also crucial to acknowledge the ways that MI syndrome can impact multiple dimensions of the human person—not only the body and mind but also the spirit. Because the psychological dimension tends to overshadow the spiritual dimension in military and therapeutic research, most MI scale measurements have focused on the psychological impact of this syndrome and its concomitant impact on the human body (sleep problems, headaches, physical disability brought about by substance abuse, and so on). Until recently, minimal efforts have been made to understand the impact that MI has on the spiritual dimension of military personnel and what can be done to care for them in this regard.

The gold standard for assessing and measuring self- and other-directed symptoms of MI and the impact of both on all three dimensions of soldiers is the Moral Injury Symptom Scale—Military Version in both its long (45-item) and short (10-item) forms [19, 20]. We focus here on the novel findings that this scale reveals about the connection between MI and spiritual disintegration. In particular, recent research utilizing The Moral Injury Symptom Scale—Military Version demonstrates how MI often causes veterans and active-duty military personnel to struggle with and potentially even lose their religious or spiritual faith and values [19]. For example, following a PMIE, "some may conclude that they live in an immoral world or that they are immoral, irredeemable, and un-repairable" [19, p. 250]. Others who experience PMIEs may struggle to forgive or live with hope for the future [19, pp. 258–259]. PMIEs have especially been associated with a diminished sense of objective meaning in life and a loss of belief in God, as the MI stemming from these events often entails a "life-defining trauma that may challenge one's assumptions about oneself and the world" [18, p. 742]. Findings from this holistic scale measurement for assessing MI suggest that the spiritual underpinnings of this syndrome have implications for former and active duty service members who are coping with trauma.

Connecting The Spiritual Implications of MI to Heightened PTSD Symptom Severity

Where MI and PTSD coexist, Shay [40] indicates that "character wounds" tend to loom, and we argue that the significance of these wounds for one's spiritual well-being is striking. Research suggests that this is particularly acute in cases of MI that are caused by predominantly self-directed patterns of shame and guilt stemming from soldiers' perceived personal transgressions, although evidence also supports the conclusion that other-directed patterns of MI similarly prompt a spiritual struggle to hold onto hope, meaning, and even belief in God or others who are good, which can heighten fear-based cluster symptoms associated with PTSD [21].

While much focus has already been placed on the psychological struggles of PTSD and MI, there remains a need to understand some of the implications of the common spiritual struggles that tend to be associated with these comorbid syndromes. Important to mention here are the findings which suggest that the spiritual trauma associated with PMIEs and MI often exacerbates symptoms of PTSD, particularly

Table 3 The connection between MI, PTSD, and spiritual disintegration

Action →	Moral injury symptoms →	PTSD symptoms →	Spiritual disintegration
Self-directed PMIEs	Spiritual conviction about personal transgressions results in guilt, shame, and self-condemnation	Re-experiencing and ruminating about personal transgressions is associated with depression and the greatest risk for suicidal ideation severity	Soldiers often struggle with the loss of faith, loss of meaning or purpose in life, and exhibit reservations about reconnecting with God and/or spiritual community based on feelings of unworthiness
Other-directed PMIEs	Betrayals and other forms of unethical conduct on behalf of another violate individual spiritual codes, resulting in distrust, anger, and the struggle to forgive them	Ruminating on actions taken by another leads to hyperarousal and hypervigilance in settings where the individual harmed must place trust in others	Soldiers often struggle to hold onto hope, meaning, and faith in God or a belief in others who are good and trustworthy

when the spiritual component of veterans and active-duty service members' questions and concerns go unaddressed [18, 13]. In cases where spiritual trauma is combined with psychological trauma, Pearce et al. [36] indicate that "individuals with spiritual struggles report lower recovery rates from PTSD and a greater need for VA (Veterans Affairs)—approved mental health services" (p. 2). To demonstrate this, in Table 3 we build on earlier research conducted by Bryan et al. [6], Pearce et al. [36], and Kelley et al. [18] to delineate the bi-directional pattern of MI scenarios that tend to trigger PTSD, and we highlight at a high level what the existing research has found as it pertains to the spiritual disintegration associated with each pattern of PTSD that is mediated by either self-directed or other-directed morally injurious convictions.

Given the nature of MI syndrome, which research points to as a frequent mediator of PTSD symptoms and a trigger for greater PTSD severity, we have suggested that it would be prudent for the U.S. military to consider more carefully the spiritual needs of soldiers as outlined by Potts [37]. Moreover, we have argued that the emerging research on the spiritual underpinnings of MI will be helpful to attend to so that the military has a clearer conception of the common ways that PMIEs and MI syndrome trigger spiritual disintegration and prevent healing from traumatic events. Now, in the next section, we turn our attention to the only known spiritually integrated approach for treating comorbid cases of PTSD and MI, which was recently developed by a clinical psychologist, an active-duty military psychologist, a psychiatrist, and a VA chaplain [36]. Rather than reinventing the wheel, it is our hope that highlighting this important and nuanced form of cognitive processing therapy in what follows will prompt the U.S. military to use what has been developed by their own experts.

5.3 How to Alleviate Comorbid Cases of MI and PTSD Holistically

Emerging research on treating cases of PTSD that are mediated by MI suggests that the spiritual dynamics associated with PMIEs pose a significant barrier to recovery from PTSD. Perhaps this is why only about 20–30% of individuals suffering from these comorbid syndromes make a full recovery [36, p. 1]. Given the historically minimal understanding of the spiritual dimension and its implications for overall wellbeing within military culture, the most common forms of therapy that are utilized by the U.S. military to treat these comorbid syndromes have focused on psychologically-based treatments that are primarily functionalist as opposed to spiritual in their approach. Pearce et al. [36] explain this as follows:

Although moral injury is intimately connected with spiritual beliefs and values, these are typically not addressed in secular approaches, not to mention spiritual struggles and loss of religious faith due to trauma, which are typically not addressed at all. Instead, secular approaches focus on thinking errors, dysfunctional cognitions, erroneous underlying assumptions, and rational justifications, not on spiritual resources, spiritual struggles, and the spiritual ramifications of trauma and their interconnection with symptoms of PTSD. *In addition, among approaches that do address spirituality in the treatment of PTSD, moral injury is typically not addressed, particularly for individual treatment* (p. 2).

The clinical methodology that Pearce discusses here favors a primarily functionalist conception of the human person. Thus, the solution is a form of cognitive behavioral therapy that focuses on correcting beliefs and dysfunctional cognitions. Failure to account for the spiritual or existential dimension of a person results in a skewed clinical approach. It fails to acknowledge an individual's need to restore meaning and purpose following the trauma they have endured.

Secular approaches that fit the bill of Pearce et al.'s [36] critique above include all four trauma-focused talk therapy treatments for PTSD that the U.S. Department of Veterans Affairs [42] includes on its mental health awareness website. We list the VA's therapeutic treatments for only PTSD in Table 4—since these appear to be the only available options for individuals facing comorbid syndromes of PTSD and MI combined (in addition to medication):

Indeed, upon reviewing the list of psychotherapeutic treatment options available to veterans and active-duty service members, as they are reflected in Table 4, it seems evident that [36] are correct to assert that neither spirituality nor MI is typically addressed in the treatment of PTSD. Thus, these researchers appropriately conclude that "there is a need for empirically based individual treatments for PTSD that target MI that make explicit use of a patient's spiritual resources, particularly given the evidence that such resources predict faster resolution of PTSD" [36, p. 2]. In what follows, therefore, we reaffirm Pearce et al. [36] conclusion and highlight their revisionist approach to the treatment of comorbid cases of PTSD and MI, which they refer to as "Spiritually Integrated Cognitive Processing Therapy" (SICPT).

Table 4 PTSD treatment options available to veterans and active duty soldiers[3]

3–4 month therapies for PTSD recommended by the VA	Description of treatment
Cognitive processing therapy (CPT)	CPT teaches you how change the upsetting thoughts and feelings you have had since your trauma
Prolonged exposure for PTSD (PE)	PE teaches you to gradually approach trauma-related memories, feelings, and situations that you have been avoiding since your trauma
Eye movement desensitization and reprocessing (EMDR)	EMDR helps you process and make sense of your trauma while paying attention to a back-and-forth movement or sound (like a finger waving side to side, a light, or a tone)
Written exposure therapy (WET)	WET helps you find new ways to think about your trauma and its meaning through writing assignments you complete during sessions. This is a brief, 5-session therapy

As Pearce et al. [36] describe, SICPT differs from CPT in five critical ways. First, it directly targets MI in the treatment of PTSD. Second, it specifically targets MI, "challenging erroneous interpretations of trauma by focusing on cognitive restructuring using clients' spiritual/religious resources (i.e., spiritual beliefs, practices, sacred writings, values, and motivations) to challenge maladaptive thinking patterns" [36, p. 2]. Third, it acknowledges the need for moral repair and seeks to establish that repair through, "the spiritual concepts and rituals of compassion, grace, spiritual guided imagery, repentance, confession, forgiveness, atonement, blessing, restitution, and making amends," [36, p. 3]. Fourth, it encourages patients to seek support through immersion in a spiritual community. Finally, it normalizes spiritual struggles—loss of faith in God, anger with God, shame for sin, etc. [36, p. 3]. Ultimately, SICPT presents a radically different way of understanding the human being as a body-mind-soul composite. In taking MI seriously, it directly addresses the underlying source of dysfunctional narratives that couch a patient's experience of trauma. It does all of this without overly-spiritualizing trauma or dismissing the influence of psychopathology.

Moreover, these scholars have created tradition-specific manuals for utilizing SICPT, which include one for the spiritual but not religious, as well as manuals for Christians, Muslims, Buddhists, Jews, and Hindus. We want to affirm the treatment of comorbid cases of MI and PTSD using tradition-specific manuals of treatment whenever possible. Again, these tradition-specific manuals acknowledge the incredibly unique position of each person who encounters trauma. Truly, these manuals are a refreshing contrast to what we call the 'treatment-in-a-vacuum' clinical orientation. Instead of treating patients as mechanistic responders to objective traumatic events,

[3] The PTSD therapies and descriptions in Table 3 are reflected exactly as they appear on the U.S. Department of Veterans Affairs [42] website.

it positions them as socially and dialogically informed—members of communities with unique spiritual orientations and beliefs.

It is important to note that caring for the spiritual dimension of patients who are suffering from the combined syndromes of MI and PTSD requires healthcare practitioners to realize that "spirituality has the potential to be a positive and protective resource or an exacerbating factor for PTSD or both" [36, p. 2]. In either case, however, it should be noted that our suggestion to care for the religious and spiritual dimension of veterans and active-duty military personnel who suffer from the combined syndromes of MI and PTSD does not run counter to their own wishes. As Koenig et al. [19] indicate—when asked whether they would be open to receiving care for the spiritual dimension of their struggles—"over 70% [of 427 veterans and active-duty military] participants surveyed responded in the affirmative" (p. 263).

That being said, for patients who do not identify as spiritual or religious, Pearce et al. [36] believe attending to the spiritual matters of MI as a way of alleviating PTSD symptoms will not work. However, we diverge from Pearce et al. [36] in this regard. Though arguing for a very particular use and application of the word 'spiritual' is outside the scope of this chapter, we contend that a broad, pluralistic understanding of the term is appropriate here for the identification of what may be considered a dimension that houses universal human concerns. Spiritual matters can include "transcendent connection," "meaning and purpose," "moral values/beliefs" and "spiritual practices" [37]. Thus, while a traditional conception of 'spiritual' is often associated with organized religion or individual beliefs about the transcendent realm, we should use the term more liberally in this context to describe something common to all soldiers on the basis of their human nature. Applying any narrower of a scope to the understanding of 'spiritual' casts aside the reality that there are deep, existential needs present in those who do not identify as spiritual or religious—needs that are readily on display as they suffer from instances of MI. Thus, it would also be beneficial to develop an agnostic SICPT manual for those who neither identify as spiritual nor affiliate with a particular religious tradition.

6 Suggestions for Future MI and PTSD Prevention

Though there is much cause for hope given the increase in spiritually informed treatments of PTSD like SICPT, there is still much work necessary to create spiritually informed prevention modes. This is curious given the research suggesting that ideological commitments and spiritual praxis are major factors contributing to an individual's prospect of recovery and response to PTSD treatment. Additionally, research demonstrating that PTSD symptoms where MI looms are likely to be more severe would also seem to inspire deeper discovery into the prevention of MI—particularly self-directed MI. However, there is little to no research on potential preventive measures. Though a careful consideration of all potential spiritually-informed preventive measures is impossible given the restraints of time and space, we would

like to suggest that one way to systematically decrease the severity of PTSD symptoms among military personnel would be to take intentional measures to reduce instances of MI. In what follows, we will detail what preventative MI measures may entail.

6.1 Preparing for Emotional Battles

When a soldier trains in boot camp, they learn how to push themselves to extreme limits, tackling impressive feats of physical and mental fortitude. These practices are in anticipation of what they will face in eventual deployment. They may have to function and make prudent decisions with little to no sleep, while malnourished, and in the face of intense fear. They need to be physically and mentally fit as they encounter these and other significant challenges and difficulties. They train accordingly. Research on MI and PTSD over the last decade has made it apparent that most if not virtually all deployed soldiers will experience PMIEs. The military should address this and attempt to prepare soldiers for that reality in the same way it addresses the physical and mental stressors of deployment—intentionally. What would it look like to prepare and fortify soldiers for their eventual encounter with PMIEs? We have two suggestions: (1) establishing existential security and (2) training in emotional regulation and cognitive framing.

We suggest that establishing existential security contains two parts. First, it requires addressing big questions on the meaning of life, purpose (especially in the context of military conquests), and the systematic exploration of ethical questions beyond the scope of compliance. We contend that failure to confront these fundamental existential questions as central to the human experience compounds the existential tension encountered in trauma and could increase the risk of self-directed MI. Equipping soldiers with a vocabulary to describe their experiences related to life's big questions ensures they are not blindsided by PMIEs during deployment or combat and forced to reconcile their values with the reality of war for the first time. This gives soldiers a voice in naming and explaining the horrors of war *qua* human beings.

The second aspect of establishing existential security involves encouraging and promoting the practice of healthy spiritual exercises. Just as SICPT involves integrating the spiritual praxis as a mode of treating PTSD compounded by MI, we suggest taking up spiritual praxis as a form of strength training for combat and deployment. Examples here include participation in faith-based community groups, prayer, meditation, devotionals, rituals, engagement with sacred writings, yoga, and so on. We obviously do not propose the endorsement of any particular religious tradition here but do suggest the systematic encouragement of religious praxis more broadly, given the positive impact of regular spiritual praxis in healing PTSD. Further consideration of what shape this should take beyond the placement of military chaplains and offering of religious services would be an essential next step for future research to consider.

Now, let us consider our second suggestion—training in emotional regulation and cognitive framing. Our perspective here necessarily follows from our exploration of successful PTSD and MI treatment. If effective healing focuses on repairing dysfunctional cognition of traumatic events, it would make sense to prime soldiers to accept and frame their experiences in healthy ways *before* they happen, thereby better equipping them to narrate their experiences when they do happen. For example, if soldiers were to confront predispositions to shame or avoidance prior to exposure to a PMIE, we suspect it would significantly diminish the likelihood of self-inflicted MI occurrences. Efforts to incorporate training of this sort should not be considered ancillary but necessary given the high probability of exposure to PMIEs that soldiers face. The specific content, structure, and practical implementation mark additional paths for future research.

7 Conclusion

This chapter has covered substantial ground regarding the history, causes, healing, and prevention of PTSD and MI. Our research strongly suggests a clear delineation between PTSD and MI to heal patients suffering from these comorbid syndromes more fully and holistically—by considering their physical, psychological, and spiritual needs. We argue that recognizing the spiritual dimension of MI is an important step in promoting the healing of patients who suffer from severe PTSD symptoms and advocate using SICPT as a promising treatment method that observes the unique spiritual struggles of soldiers and how they can help or hinder response to treatment. Finally, we propose the prevention of MI through establishing existential security prior to deployment and the systemic implementation of training in emotional regulation and cognitive framing. We suggest these preventive measures to better equip soldiers for PMIEs and to help them move through these experiences with an attenuated resilience. In the end, it is our hope that this research, which largely builds on concerns outlined by Potts [37], will prompt further reflection on care for the whole soldier and lead to revisionary insights that can enhance the U.S. military's TFF program.

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