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# Encountering children and child soldiers during military deployments: the impact and implications for moral injury

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**ABSTRACT**

**Background:** During a deployment, soldiers must make seemingly impossible decisions, including having to engage with child soldiers. Such moral conflicts may continue to affect service members and veterans in the aftermath of a deployment, sometimes leading to severe moral distress, anguish, and personal crises. Service providers have increasingly argued that as a diagnosis, Post-Traumatic Stress Disorder (PTSD) cannot account for these deeply personal and painful moral conflicts. In light of this, the concept of moral injury has been introduced to better capture the profound forms of guilt and shame that may be experienced by service members and veterans.

**Objective:** This paper addresses encounters with children and child soldiers during military deployments, as well as the risk for moral injury during and following these encounters, and their implications. This exploratory paper brings together existing literature on the topic to introduce, illustrate, and offer potential and promising interventions.

**Results:** Given the potential moral conflicts that may ensue, military personnel who encounter child soldiers during a military deployment may be at risk for moral injury during and following these encounters. The introduction of the concept of moral injury provides a way for these largely unnamed personal and painful moral conflicts and violations to be recognized, addressed, and with appropriate care, remedied. Although there is limited research into their effectiveness at treating moral injury, individual and group-based interventions have been identified as potentially beneficial.

**Conclusion:** As encounters with children during deployments are likely to continue, systematic research, training, healing interventions and prevention strategies are vital to support and protect children in conflict settings, as well as to ensure the mental health and well-being of service members and veterans.

## Encuentro con Niños y Niños Soldados Durante el Despliegue Militar: Impacto e Implicancias para el Daño Moral

**Antecedentes:** Durante un despliegue, los soldados deben tomar decisiones aparentemente imposibles, incluyendo el decidir qué civiles deberían ser llevados a refugios seguros, la frustración de no poder proteger a los civiles, y el tener que interactuar con niños soldados. Estos conflictos morales pueden seguir afectando a los miembros del servicio y a los veteranos después del despliegue, produciendo a veces a sufrimiento moral severo, angustia y crisis personales. Los proveedores del servicio han argumentado crecientemente que como diagnóstico, el Trastorno de Estrés Postraumático (TEPT) no puede dar cuenta de estos conflictos morales profundamente personales y dolorosos. A la luz de esto, se ha introducido el concepto de daño moral para capturar mejor las profundas formas de culpa y vergüenza que pueden experimentar los miembros del servicio y los veteranos.

**Objetivo:** Este trabajo aborda encuentros con niños y niños soldados durante despliegues militares, así como también el riesgo de daño moral durante y después de estos encuentros, y sus implicancias. Aunque hay limitada literatura disponible que aborde las complejidades de los niños soldados, despliegues militares y daño moral – particularmente las formas en que estos problemas se intersectan – este trabajo exploratorio reúne la literatura existente acerca del tema para introducir, ilustrar y ofrecer potenciales y prometedoras intervenciones a un tema infra-investigado de creciente interés.

**Resultados:** Dados los potenciales conflictos morales que pueden surgir, el personal militar que encuentra niños soldados durante un despliegue militar puede estar en riesgo de daño moral durante y después de dichos encuentros. La introducción del concepto de daño moral provee una forma para reconocer, abordar y con cuidado adecuado, remediar, estos dolorosos conflictos morales y violaciones mayormente innominadas. Aunque hay limitada investigación en su efectividad para tratar el daño moral, las intervenciones individuales como la Terapia de Procesamiento Cognitivo, Impacto de Matar, Divulgación Adaptativa y las intervenciones grupales como la Terapia de Aceptación y Compromiso y el

**HIGHLIGHTS**
- Profound moral conflicts may affect service members and veterans in the aftermath of a military deployment, sometimes leading to severe moral distress, anguish, and personal crises. The concept of moral injury has been introduced to better capture the profound forms of guilt and shame that may be experienced by service members and veterans.
- Encountering children and child soldiers during a military deployment, may present unique challenges, stress, and moral crises leading to potentially moral injurious events. In particular, *transgression-based events* which result from an individual perpetrating or engaging in acts that contravene his or her deeply held moral beliefs and expectations such as harming children, and *betrayal-based events*, which results from witnessing or falling victim to the perceived moral transgressions of others, may lead to lasting psychological, biological, spiritual, behavioural and social impairments.
- Interventions applied in both an individual-based context such as *Cognitive*

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Entrenamiento de la Fortaleza de la Resiliencia, que se basan en un modelo de soporte por pares para fomentar la vinculación, la confianza y el bienestar, han sido identificadas como potencialmente beneficiosas.

**Conclusión:** Como es probable que los encuentros con niños durante los despliegues continúen, la investigación sistemática, el entrenamiento, las intervenciones terapéuticas y las estrategias de prevención son vitales para apoyar y proteger a los niños en los escenarios de conflicto así como también para asegurar la salud mental y bienestar de los miembros del servicio y veteranos.

Processing Therapy, Impact of Killing, Adaptive Disclosure, and a group-based context such as Acceptance and Commitment Therapy and Resilience Strength Training, have been identified as potentially beneficial to addressing moral injury. However, more research is required to ascertain appropriate and effective intervention and healing strategies.

### 在军事部署期间遇到儿童和童兵：对道德伤害的影响和启示

**背景**：在部署期间，士兵必须做出看似不可能的决定，包括决定哪些平民应被送往安全避难所、无法保护平民的挫败感以及不得不与童兵接触。这些道德冲突可能会在部署后继续影响服役人员和退伍军人，有时会导致严重的道德困扰、痛苦和个人危机。服役提供者越来越多地争辩说，作为一种诊断，创伤后应激障碍 (PTSD) 不能解释这些深刻的个人和痛苦的道德冲突。有鉴于此，引入了道德伤害的概念，以更好地捕捉服役人员和退伍军人可能经历的内疚和羞耻的深刻形式。

**目的**：本文探讨了在军事部署期间与儿童和童兵的遭遇，以及这些遭遇期间和之后的道德伤害风险及其影响。虽然关于童兵、军事部署和道德伤害的复杂性的可用文献有限，尤其是关于这些问题交互的方式，这篇探索性论文汇集了关于该主题的现有文献，以介绍、说明并提供潜在的有前景干预措施给这个研究不足却日益受到关注的话题。

**结果**：鉴于可能发生的潜在道德冲突，在军事部署期间遭遇童兵的军事人员可能在这些遭遇期间和之后面临道德伤害的风险。道德伤害概念的引入为这些很大程度上无名的个人痛苦道德冲突和违规行为提供了一种被认可、解决和恰当关注、补救的方法。尽管对其治疗道德伤害的有效性研究有限，基于个体的干预措施，如认知加工疗法、杀戮的影响、适应性披露，以及团体干预措施，如借鉴一个鼓励建立联系、信任和健康的同伴支持模型的接受和承诺疗法和心理韧性能力训练，已被确定为潜在有益的。

**结论**：由于在部署期间与儿童的接触可能会继续，系统性的研究、培训、治疗干预和预防策略对于支持和保护冲突环境中的儿童以及确保服役人员和退伍军人的心理健康和福祉至关重要。

## 1. Introduction

Serving in the military is both physically and mentally challenging involving both physical and psychological stressors. Physical stressors include sleep deprivation, extreme temperatures, dehydration, challenging living conditions, risk of serious injury, while psychological stressors include decision-making under immense pressure, fear, anger, as well as geographic family separation, to name but a few. The realities of modern asymmetric warfare have brought forth additional challenges and complexities, particularly regarding ambiguity and the dangers troops face. As Brock & Lettini (2012) write:

> Troops now fight an enemy that could be anyone and anywhere. Even a child or a pregnant woman can present a lethal danger, hiding a bomb or grenade. No one is safe, but killing a civilian violates the code of conduct for war (p. 43).

While children have always been implicated in armed conflict, in contemporary deployments where there are often no clear boundaries between the frontline and the rear, civilians and combatants, professional troops often encounter children affected by war and child soldiers. A child soldier refers to:

> any person below 18 years of age who is or who has been recruited or used by an armed force or armed group in any capacity, including but not limited to children, boys and girls, used as fighters, cooks, porters, messengers, spies, or for sexual

purposes. It does not only refer to a child who is taking or has taken a direct part in hostilities. (UNICEF, 2007, p. 7)

Encounters with children affected by war and/or child soldiers may pose unique challenges to service members not only operationally, but also psychologically and morally. This may be especially apparent during and following a confrontation with a child where either harming a child soldier, or failing to protect a child, is perceived by a service member to transgress their deeply held moral beliefs and values. In some instances, decisions made by others, including superiors, may be experienced as a betrayal of what an individual service member believes to be 'right'. These moral conflicts may continue to affect service members and veterans in the aftermath of a deployment, sometimes leading to severe moral distress, anguish, and personal crises. Service providers – whether mental health professionals or clergy – have increasingly argued that as a diagnosis, Post-Traumatic Stress Disorder (PTSD) cannot account for these deeply personal and painful moral conflicts. The notion of *moral injury* has been introduced to better capture the profound forms of guilt and shame that may be experienced by service members and veterans.

This article traces the realities of encountering children and child soldiers during a deployment, as well as the implications for moral injury. Over the past several decades, literature on the reality of military

deployments and moral injury has burgeoned (Shay, 1992; 2014; Litz et al., 2009; Molendijk, 2019; Nichter, Norman, Maguen, & Pietrzak, 2021). Similarly, there is ample literature on the phenomenon of child soldiers and its implications (Betancourt et al., 2020; Denov, 2010; Wessells, 2006). However, there is minimal literature on the ways in which military deployments, moral injury, and encounters with children and child soldiers *intersect*. To better illuminate the realities and experiences of moral injury among service members and veterans who have come into contact with children and child soldiers during a deployment, a review of the available literature addressing this intersection was conducted. The review was not systematic in nature, and given the minimal available literature on moral injury and child soldiers, no exclusion criteria was implemented. Instead, the goal was to bring the two sets of literature on encounters with children and child soldiers and moral injury together – *in an exploratory way* – to introduce, illustrate, and offer potential and promising interventions to an under-researched topic of increasing concern.

The paper is divided into three sections. Section one traces the realities of combat and mental health for service members and veterans and examines the concept of moral injury. Section two addresses encounters with children and child soldiers during deployments, as well as the risk for moral injury during and following these encounters. The final section addresses some implications for support and intervention in relation to child soldiers and moral injury.

## 2. Combat and mental health: understanding moral injury

The mental anguish that is sometimes experienced during and in the aftermath of a military deployment is not a new phenomenon, but one that has affected generations of soldiers. From 'soldier's heart' to 'shell shock', to 'battle fatigue', to 'Post-Traumatic Stress Disorder' (PTSD), historically there has been changing terminology to refer to the post-deployment mental health challenges that soldiers may face. These challenges may include depression, anxiety, anger, sleep problems, substance abuse issues, guilt, grief, relationship problems, and suicide ideation to name but a few (NATO, 2016, p. vii). Over the course of time, theoretical and clinical knowledge have been building and expanding in relation to how to best support affected service members and veterans. In the aftermath of the Vietnam war, PTSD became the prominent diagnosis used to explain and treat the debilitating symptoms reported by soldiers. And yet, PTSD-based treatments with military personnel have not yielded consistent positive outcomes (Vermetten & Jetly, 2018). It has been suggested that the struggles of many veterans are not exemplified by the fear or

terror-based trauma that is the traditional basis of a PTSD diagnosis. Moreover, researchers and clinicians have articulated that PTSD cannot account for the deeply personal moral dilemmas and conflicts experienced during deployments that often lead to guilt, shame, and personal crises. Drawing on the experiences of veterans, clinicians and researchers have introduced the concept of 'moral injury' (MI) to better capture the moral pain and anguish often described. This section begins by outlining the documented mental health challenges experienced by service members and veterans across three Western nations, as well as the potential need to retool paradigms of PTSD for military personnel. The concept of moral injury is then traced – its emergence, definitions, impact, and measurement, underscoring how MI may help to complement, not replace PTSD.

### 2.1. Mental health challenges following deployment: the need to 'Retool' to capture moral conflicts

Recent empirical literature on the mental health of military personnel from Canada, United States (US), and United Kingdom (UK) demonstrate concerning levels of mental health challenges. Analyses of population-wide surveys have indicated that nearly one-fifth of Canadian Armed Forces (CAF) military personnel screen positive for one or more mental health disorders in the previous year. Rusu, Zamorski, Boulos, & Garber (2016) found that relative to the matched Canadian general population, regular force personnel had significantly higher rates of past-year major depressive episode, generalized anxiety disorder, and suicide ideation. Boulos & Zamorski (2016) found that approximately 14% of the 30,513 CAF personnel who had deployed to Afghanistan had a mental health disorder that was linked to the Afghan mission. Rusu et al. (2016, p. 53S) note the need for the CAF mental health system to be 'scaled and resourced to address the truly disproportionate burden of mental health problems relative to the Canadian general population'.

In the US, PTSD and major depressive disorder (MDD) are among the most prevalent mental disorders in US military veterans (Nichter, Norman, Haller, & Pietrzak, 2019). Epidemiological studies estimate that approximately 8–22% of US military veterans meet lifetime criteria for PTSD (Goldberg et al., 2016), while 13–16% meet lifetime criteria for MDD (Trivedi et al., 2015). Importantly, the military campaigns in Iraq and Afghanistan marked the longest sustained ground combat operations in US history, and the profound mental health effects of such operations are increasingly being documented (Currier, Drescher, & Nieuwsma, 2020). For example, Currier et al. (2020) note that service members and veterans

have been dying by suicide in the US at roughly twice the rate as non-military persons for over a decade – to the point where suicide deaths surpassed combat-related fatalities in active duty in 2012.

In the UK, Rhead et al. (2020) found that veterans of recent military operations were more likely to report common mental disorders (23% v. 16%), PTSD (8% v. 5%) and alcohol misuse (11% v. 6%) at a higher prevalence than non-veterans. Jones, Sharp, Phillips, & Stevelink (2019) found an upward trend in self-harming among active personnel and veterans from 1.9% in 2004–2006, to 3.8% in 2007–2009, to 6.6% in 2014–2016. In the same study, 9.7% of respondents had attempted suicide in their lifetime, whereas nearly 48% had experienced suicide ideation (Jones et al., 2019). The most recent data reported by Veterans Affairs shows that in 2016, 6% of veterans were suffering from PTSD, also showing an upwards trend, from 4% in 2006 (Veterans Affairs, 2020).

The high rates of PTSD, suicide, and other mental health disorders documented across these Western militaries are deeply concerning. Moreover, it raises questions as to why conditions like PTSD appear to persist in military personnel despite treatment interventions. For example, research has shown that between one-third and one-half of veterans receiving interventions for PTSD do not demonstrate clinically meaningful symptom improvement (Steenkamp et al., 2011; Vermetten & Jetly, 2018). When patients do improve, PTSD symptoms often remain high: Mean PTSD scores in trials of military-related PTSD have tended to remain at or above diagnostic thresholds following evidence-based interventions and approximately two-thirds of patients retain their PTSD diagnosis (Vermetten & Jetly, 2018). Vermetten and Jetly (2018) note that veterans often receive labels of being 'difficult to treat' or 'non-responders'.

The disconcerting rates of mental health challenges, particularly PTSD, have propelled further clinical analysis and conceptual articulation. Some scholars have suggested the need to organize PTSD into sub-categories. For example, Nordstrand et al. (2019) have documented differing mental health implications depending on whether service members were exposed to danger or non-danger events. The need to create distinct sub-groups is echoed by Shea, Presseau, Finley, Reddy, & Spofford (2017) who note that: 'in particular, there is emerging support for differential symptomatic impact from exposure to personal life threat as compared to exposure to death or serious injury of others' (p. 23). In specifying the different symptoms based on wartime experiences, research by Ramage et al. (2016), demonstrated differences in brain regions between veterans suffering from PTSD who reported danger and non-danger-based traumas.

Despite these important areas of further exploration related to PTSD, a key question has remained:

Why are service members' and veterans' PTSD symptoms not improving to a greater degree with treatment? Over the past 15 years, there has been a strong collective clinical movement suggesting that for service members and veterans, the PTSD diagnosis – as traditionally defined and assessed – does not adequately capture all clinical concerns that may emerge from exposure to combat-related events (Shay, 2014; Vermetten & Jetly, 2018). It has been argued that PTSD's focus on *fear and anxiety* may be too narrow and insufficient to address issues of lasting guilt, shame, and remorse that service members and veterans often struggle with for years (Haight, Sugrue, Calhoun, & Black, 2016; Litz et al., 2009). It has been suggested that there are unique *moral implications* associated with combat-related events that contribute to mental health challenges. As Litz & Kerig (2019, p. 344) note:

> It seems likely that there is a uniquely morally injurious phenomenology not accounted for by PTSD. This is because PTSD has been historically framed as a danger-and victimization-based disorder and the DSM 5 requires direct or indirect exposure to life-threat or sexual violence for an experience to qualify as a Criterion A event.

Similarly, Shay (2014) notes: 'pure PTSD, as officially defined … is rarely what wrecks veteran's lives, crushes them to suicide, or promotes domestic and/or criminal violence. Moral injury … does' (p. 4). Clinicians have noted that the *failure to address moral issues* has been a key obstacle to improving mental health in military personnel, to lessening their debilitating symptoms, and has been a source of lasting suffering (Haight et al., 2016). As a result, clinicians have suggested the need to further 'retool' paradigms of PTSD and other trauma-related issues as they relate to service members and veterans (Currier et al., 2020). In response, researchers and clinicians have suggested that the concept of moral injury, first introduced by Shay (1992), and the distinction between moral injury and PTSD, may help to understand, explain and address some of the complex and persistent combat-related sequelae (Jamieson, Usher, Maple, & Ratnarajah, 2020; Jinkerson, 2016). The following section outlines the concept of moral injury, and the definitions surrounding its use for military populations and beyond.

## 2.2. What is moral injury? Conceptualizations, definitions, and potentially morally injurious events

The concept of moral injury (MI) was brought to the fore by Shay (1992) – a psychiatrist who used it to describe the profound moral pain experienced by the Vietnam war veterans he worked with. Shay asserted that moral wounds impair an individual's capacity

for trust, elevate despair, suicidality, interpersonal violence, and deteriorate character.

Since Shay's initial introduction of the concept, research, and clinical work on the topic, especially over the last decade, have flourished, in many ways paving the way for a new field of study. The increased interest and pertinence of MI for military populations may also be reflective of asymmetric conflict. Contemporary warfare continues to be characterized by an intensification of ethical dilemmas, betrayal, spiritual wounds, high-stress situations, blurred lines between civilians and combatants and protracted violence. As Blinka & Harris (2016) note: 'Troops on the ground, sea or air, may experience more and more meaninglessness when there is no front, where victory remains elusive and unclear, where collateral damage occurs on a daily basis, and where perceived allies become attackers' (p. 8). In these complex conditions where ethical and moral dilemmas deepen, the risk and reality of MI may become increasingly apparent.

It is important to note, however, that there is presently no unanimous operational definition of MI (Held, Klassen, Zalta, & Pollack, 2017). In fact, in their systematic review of MI definitions, Richardson et al. (2020) note that there are currently 12 different definitions in the literature. The multiple definitions are, in many ways, indicative of the relative newness of the concept, its evolving nature, and the clinical and empirical efforts being made to fully understand, capture, streamline, and apply the concept. Richardson et al. (2020) note, however, that there are key definitions that have been the most cited in the literature, suggesting some degree of collective coherence and consonance:

- The most commonly cited definition is from Litz et al. (2009) who define MI as: 'the lasting psychological, biological, spiritual, behavioural and social impact of perpetrating, failing to prevent, bearing witness to, or learning about acts that transgress deeply held moral beliefs and expectations' (p. 697).
- Shay's (2014) definition has been the second most cited. He defines it as: 'a betrayal of what's right by someone who holds legitimate authority (eg – in the military – a leader) in a high stakes situation' (p. 183). Shay (2014) refers to MI as a 'character wound' that stems from a betrayal of justice.

In the current state of its development, MI is not a diagnosable disorder or clinical condition, and as yet, there are no established criteria for the required features of what are referred to as 'potentially morally injurious events' (PMIEs). Importantly, while everyone experiencing MI has been subject to a PMIE, not everyone subjected to a PMIE experiences MI. PMIEs are believed to occur during situations and contexts where the values that matter most deeply to an individual have been transgressed by themselves or others, resulting in feelings of despair, and possibly MI. There are two categories of morally injurious events that are believed to have the potential to lead to MI. The first category are *transgression-based events* which result from an individual *perpetrating* or engaging in acts that contravene an individual's deeply held moral beliefs and expectations. These perceived transgressions, while personal in nature, are often associated with broader cultural and societal morals, expectations, and conceptions as to what is considered 'right' and 'just'. An example of such a perceived transgression is the act of killing – a taboo that military personnel are not immune to, even in the context of war. When veterans are invited to share their thoughts and feelings after combat, many describe killing another person or people as a transformative experience that profoundly altered their perception of themselves and their world (Purcell, Maguen, Koenig, & Bosch, 2016). Given the powerful societal and moral taboos against killing another, killing is regarded as a 'prototypical perpetration-based PMIE' (Griffin et al., 2019, p. 353).

The second category of PMIEs are *betrayal-based events* which results from *witnessing or falling victim* to the perceived moral transgressions of others. These may fall into the category of acts of omission that leave profound emotional damage. Examples of betrayal-based events including being unable to act while someone is being raped or severely harmed, or witnessing an act of betrayal committed by another. In a military context, these acts of betrayal can be committed by another service member or a superior. Institutional betrayal can also occur where an individual service member experiences a perceived betrayal or violation by their military and political leadership and institutions whether through acts of commission or omission (Molendijk, 2019). Such violations are said to be experienced as particularly traumatic when members depend on the institution for their safety and well-being, and when they trust it to care for their lives (Molendijk, 2019). Another example of betrayal-based events are the potential public criticism and condemnation experienced by service members and veterans in the aftermath of a deployment, for either their actions or inactions. Accusatory public debates about soldiers' actions can aggravate soldiers' struggles, and directly and indirectly contribute to MI (Molendijk, 2018).

Research is beginning to track the prevalence of MI in active-duty military personnel, as well as in veterans. A study by Nichter et al. (2021) on MI and suicidal behaviour among a sample of 1321 US combat veterans show that 36.3% of veterans report at least one PMIE. Moreover, PMIEs were associated with increased risk for suicidal behaviour, above and beyond the risk related to combat exposure, PTSD

and depression. In their study of moral injury in 564 US combat veterans, Wisco et al. (2017) found that 10.8% combat veterans reported committing transgressions themselves, whereas 25.5% reported witnessing transgressions by others. In another study, Jordan, Eisen, Bolton, Nash, & Litz (2017) found that 25% of 867 active-duty US Marines cited perpetration and/or betrayal items on a measure for MI. Easterbrook et al. (2022) found that exposure to stressful deployment experiences, particularly those involving moral-ethical challenges, sexual trauma, and childhood maltreatment were found to increase levels of MI in Canadian Armed Forces personnel.

Symptoms of MI are said to often be misdiagnosed or mistaken for PTSD (Jamieson et al., 2020). However, PTSD and MI can comorbidly exist. Koenig et al. (2018) found that >50% of veterans with PTSD symptoms had four or more symptoms of MI in the severe range, and almost 60% of veterans with PTSD had five or more symptoms of MI. Although they may have some overlapping features, many authors nonetheless suggest that PTSD and MI are distinct constructs (Jinkerson, 2016). In this sense, the introduction of MI complements PTSD, not replaces it, ensuring the inclusion of vital moral components to address the unique realities of contemporary warfare and its aftermath.

## 2.3. The impact of moral injury

Currier et al. (2020) note that there is a lack of consensus about the specific symptoms or outcomes that may signify the state of being 'morally injured'. Furthermore, as noted by Griffin et al. (2019), 'the lack of a gold-standard, theoretically grounded, content-valid measure of morally injurious outcomes is a major limitation of the current literature'. (p. 356). Nonetheless, the literature has addressed the wide-ranging psychological, social, and/or spiritual implications specific to MI as well as following exposure to PMIEs. Though not conclusive, as evidenced by the above challenges, research has suggested that mental and behavioural health problems are more closely linked to moral injury than just exposure to PMIEs (Griffin et al., 2019).

On a *psychological level*, an individual experiencing moral injury 'may begin to view him or herself as immoral, irredeemable, and un-reparable [if they are the perpetrator] or believe that he or she lives in an immoral world [if they are a witness]' (Litz et al., 2009, p. 698). Those experiencing MI may be distinguished from those suffering from PTSD due to the inappropriate levels at which they carry guilt, as well as their experience of deep emotional shame (Farnsworth, Drescher, Nieuwsma, Walser, & Currier, 2014, p. 250). The review of the literature on the impact of moral injury conducted by both Fleming

(2021) and Burkman, Maguen, & Purcell (2021) document a variety of negative psychological symptoms including intense guilt and shame, as well as increased suicidal ideation. Collectively, these symptoms were described as 'unique distress' (Fleming, 2021, p. 3014) by one research team, while another summarized them as 'deep emotional stress or conflict' (Farnsworth et al., 2014, p. 250). During qualitative interviews with health and religious professionals who work with service members and veterans, respondents pointed to psychological symptoms of MI such as 'depression; anxiety; anger; reenactment; denial; occupational dysfunction; and exacerbated preexisting mental illness' as well as, 'self-deprecation, including guilt, shame, self-loathing, feeling damaged, and loss of self-worth'. (Drescher et al., 2011, p. 11)

An individual may also experience shame, guilt, distrust, anger, grief, contempt, loss of meaning, self-condemnation, and disgust following exposure to PMIEs (Jamieson et al., 2020; Farnsworth et al., 2014). Furthermore, among US military personnel and veterans, a considerable body of research has shown that exposure to PMIEs is associated with varied psychiatric symptoms and that individuals exposed to PMIEs appear to be at greater risk for developing psychiatric symptoms than those not exposed (Griffin et al., 2019, p. 351). This is echoed in research by Nieuwsma et al. (2021) who document multiple negative psychological impacts experienced by US military veterans who have experienced moral injury either through transgression or omission. In a national sample of 564 US veterans of the Iraq and Afghanistan wars, Wisco et al. (2017) found that exposure to PMIEs was associated an increased risk of mental disorders and suicidal ideation and attempts, after controlling for sociodemographic characteristics, trauma history, and prior psychiatric diagnosis.

Those experiencing MI and those who have been exposed to PMIEs are also at risk of significant negative *social implications*, impacting relationships and rupturing social bonds with family, friends, and the broader community (Nash & Litz, 2013). Research documenting the social symptoms of individuals experiencing MI note the tendency to withdraw socially (Fleming, 2021; Nash & Litz, 2013), as well as a variety of negative outcomes, notably 'avoiding intimacy, anger and aggression, reduced trust in other people and cultural contracts' (Farnsworth et al., 2014, p. 250). A study by Drescher et al. (2011) looking into common symptomology seen by practitioners working with veterans experiencing MI documented 'sociopathy, problems fitting in; legal and disciplinary problems, and parental alienation from their child' (p. 11). Collectively, this research highlights how the social worlds of individuals experiencing MI are negatively impacted. Additionally, findings from qualitative studies have suggested a

range of potential interpersonal and social problems that are associated with exposure to PMIEs. Active-duty military personnel have described perceived or actual rejection by family or friends, resentment due to feeling misunderstood by civilians, and loss of trust in military command, romantic partners, government or society in general, and social withdrawal (Griffin et al., 2019; Burkman et al., 2021). The significance of the negative social implications of MI and exposure to PMIEs is further highlighted by Griffin et al. (2019), who posits that interventions should acknowledge and incorporate community-based endeavours, emphasizing the importance of connection between others and their community during the healing process.

*Spiritual and religious struggles*, as well as turmoil with God or a higher power have also been linked to MI. Koenig & Al Zaben (2021) note that 'the moral values that have been transgressed in MI are frequently based on the religious beliefs of the individual or the cultural environment in which those individuals were raised' (p. 3002). Reviews of current interventions used by practitioners treating individuals with moral injury have documented symptoms related to spiritual and religious struggles such as a loss of faith, as well as the potential effectiveness of less standard/scientific treatment models such as spiritually-integrated psychotherapies (Fleming, 2021; Jones et al., 2022). Relatedly, individuals experiencing a specific type of MI described as complex, may experience 'spiritual conflict' and/or a 'loss of faith' and may benefit from spiritual/religious interventions (Fleming, 2022, p. 1040). Possible spiritual and existential symptoms documented by Nash & Litz (2013) include a 'loss of religious faith, loss of trust in morality, loss of meaning and fatalism' (p. 369). As evidenced by Jones et al.'s (2022) scoping review into the treatment of MI, there is a growing emphasis on treating the religious/spiritual impact of MI. The emphasis on religion-based, chaplaincy interventions is further echoed by Carey et al. (2016) in their scoping review of spiritual care and the role of chaplains in relation to MI. In qualitative interviews of health care providers and religious professions providing care to individuals experiencing MI, Drescher et al. (2011) report that nearly half the practitioners speaking to patients reported spiritual struggles such as 'giving up or questioning morality, spiritual conflict, profound sorrow, fatalism, loss of meaning, loss of caring, anguish, and feeling haunted' (p. 11). Collectively, the spiritual and/or religious struggles experienced by individuals with MI can be understood as a breaking point in one's existential reality. What was believed to be 'true' is no longer viable moving forward because of what the individual has done or witnessed, or even not done in the past.

Brémeault-Phillips et al. (2019, p. 2) note that when exposed to PMIEs, a person's 'core self, ideals, and perceptions of reality can be shattered and their spirit 'broken', leaving them spiritually and existentially struggling'. Brémeault-Phillips, Pike, Scarcella, & Cherwick (2019) go on to argue that when a person is unable to resolve spiritual and religious struggles, they can experience compromised psychological, social, physical and spiritual functioning, poor recovery from MI, increased mental health symptoms, disconnection from self and others, and greater risk of mortality. Other research has documented that longer periods of spiritual and religious struggle tend to create greater risk of experiencing negative health outcomes (Exline, Grubbs, Pargament, & Yali, 2014).

## 3. Encountering children during deployment: the potential for moral injury

For professional troops, contemporary missions take place in contexts where insurgencies, asymmetric conflict, and atrocities committed by political, religious, social militants have become commonplace. What also makes contemporary missions distinct from the past, are the unprecedented levels of interaction between military personnel and local populations. Military personnel are required to take on an array of roles – whether combat, humanitarian and stabilization roles – often concurrently (Thompson, 2015). Moreover, these roles occur in contexts where cultural practices between service members and local populations may differ significantly (Thompson, 2015). Although some of these features are not entirely new, recent conflicts have arguably brought more of these issues into play at the same time than in the past.

While children have always been implicated in armed conflict, it is in this complex context, where there are blurred lines between the frontline and the rear, civilians and combatants, that children have become increasingly embedded within the theatre of war. Children may be part of the background periphery, as civilians, where they can come into contact with professional troops on a daily basis. However, they also may be participants in conflict, where they can be involved in a multiplicity of roles – whether through force or non-force – as child soldiers. An example is the Hitler Youth and child recruitment into the *volksstrum*. More recently, attention to child soldiers has focused on Sub-saharan Africa. While there are no reliable statistics to substantiate the true numbers of child soldiers in contemporary armed conflicts, these children now fight almost exclusively in the poorest nations on earth. Currently, the vast majority of armed groups and forces recruiting children are now spread across North Africa, the Sahel, the Horn of Africa, the Middle East, and South and South East Asia. The United Nations estimates that 56 non-state armed groups and seven state armed forces were recruiting and using children in 2017 (UN, 2018).

Child soldiers have been part of the operational landscapes for professional troops deployed to conflicts in Afghanistan, Bosnia, Central African Republic, Darfur, Democratic Republic of Congo, Kosovo, Iraq, Mali, Northern Ireland, Rwanda, Sierra Leone, Somalia, South Sudan, and Sri Lanka, to name but a few (Jones, 2016; Meijer, 2011; Mircica, Hickmott, Kilbey, Hughes, & McManus, 2011; NATO, 2021). Despite the presence of children in theatres of war, and its importance as an issue, there is a profound lack of research, data, or literature addressing professional troops' encounters with children during a deployment. The minimal literature that is available has asserted that militaries in the US, UK, and Canada remain unprepared to deal with child soldiers (Hughes, 2006; Coombs, 2018; Jones, 2016).

In spite of this lack of literature, the following section examines the challenges service members face when encountering children affected by armed conflict, and confronting child soldiers. The section below first explores the moral values and conceptions that professional troops carry with them to a mission that may influence encounters with children. It then identifies the PMIEs that may occur during encounters with children.

## 3.1. Children in the theatre of war: potential morally injurious events

Within Western societies, cultural paradigms and deeply held beliefs have long associated children and childhood with innocence, vulnerability, passivity, helplessness, and the need for protection (Burman, 1994; Brocklehurst, 2016). The longstanding views of child vulnerability represent some of the most fundamental and deeply held personal moral values and convictions (Burman, 1994). While few issues in society garner consensus, the perception of children as innocent and in need of protection is one that is generally accepted, supported, and sought after. Moreover, to actively harm children or fail to protect them may be perceived as grave moral violations: there are powerful social taboos against child maltreatment in Western societies. These values reflect a sense of 'idealized' childhood that have long shaped contemporary Western discussions, expectations and perceptions of children (Berents, 2020).

This section traces situations that may constitute PMIEs involving children and child soldiers. What defines these situations as PMIEs is that they *violate* an individual's core moral values and beliefs, specifically surrounding childhood innocence, gender and conflict, and/or professional soldiering. These violations may be perceived as so grave that they may lead to MI. Two types of PMIEs are described. First, transgression-based events are addressed where child soldiers pose an immediate and violent threat. Second, betrayal-based events are considered, specifically, the implications of failing to protect children during a

deployment, as well as the role of institutional betrayal, and public condemnation in the aftermath of a deployment. As armed conflicts increasingly include interactions with children (Jinkerson, 2016), the likelihood of service members engaging children in combat or witnessing similar events grow. While this paper is focused on deployments where moral injury occurs following encounters with children and child soldiers, moral injury may also occur outside of deployments.

### 3.1.1. Transgression-based events: encountering child soldiers

The situation of encountering a child soldier who poses an immediate threat to the life of a service member or unit, in many ways, represents a 'quintessential' PMIE. Confronting a child soldier not only requires an instant response in a high-stress situation, but also can have long-term negative implications for service members' mental health:

> As you stare at him, you picture yourself in a flash, age ten, playing war games in the woods. For a split second you must decide your own fate, the fate of villagers under your protection, and of those children in front of you. Do you treat this person aiming his weapon at you as a soldier or a child? If you do nothing, dozens will be slaughtered, and you put your own life at risk. If you fire to frighten or disarm, you begin a doomed and bloody shootout. Fire back to kill, as you would at an adult, and you will save a village, but at what cost? … I was a soldier. A peacekeeper. A general. Years have now passed since I stood among the corpses of a human destruction that rivalled anything Dante could have imagined. The smells, the sights, the terrible sounds of the dying in Rwanda have been damped down in my psyche to a dull roar through constant therapy and an unrelenting regimen of medication. (Dallaire, 2011, pp. 1–2)

Addressing these issues, this section explores the potential responses of shock, hesitation, and the use of lethal force when encountering a child soldier.

Shock refers to the intense psychological reaction to the confrontation of something totally unexpected (Meijer, 2011). As a result of shock, a professional soldier may not engage or to return fire against a threatening child soldier. This British soldier recalled how members of his team were shocked when they realized children were capable of committing violent acts:

> In spite of being paratroopers they actually quite like kids, they can have a laugh and joke with them, they discovered very soon they couldn't … I think that was part of the shock actually, when they realized that kids could get up to no good in a very dangerous way (cited in Jones, 2016, p. 283).

The trauma associated with shock during child soldier encounters cannot be underestimated. As this soldier recounted:

> We had been stoned by kids before, seen the gunmen using women and children as human shields … but

this was the first time someone had sent a child to physically attack us. It was extremely difficult for me to calm myself and the company down, particularly as one or two of the younger [soldiers] were understandably traumatized by the experience. My initial reaction was to go back in and hand out some retribution, but that would have countermanded our earlier success (cited in Mircica et al., 2011, pp. 5–8).

Gender may also be an important factor to consider in relation to shock. The common association of girls with frailty and victimization may contribute to the element of shock and surprise when confronting armed girl soldiers. As this British soldier noted:

we were all male soldiers generally speaking … I think they will be more shocked by … a girl being used [for the purposes of armed violence] (Jones, 2016, p. 278).

Hesitation may also be a response to an encounter with a child soldier:

Do you kill children who kill? Do you kill children who are there under duress, who have been stolen from their families, their schools, their churches or villages, lined up with a few of their friends and killed to establish discipline? Do you kill a child who is enticed not for a desire to kill, but due to the effects of drugs; children who do not realise the full impact of what they are facing or the consequences of their actions? (cited in Dallaire Initiative, 2012, p. 42).

Brocklehurst (2007) explains the consequences of hesitation: the 'child status may cause an almost operational paralysis by troops unwilling to open fire on them' (p. 374). In her study of British soldiers, Jones (2016) found that given their status as children, soldiers she interviewed often expressed feelings of compassion, and empathy, and in some cases, hesitated to return fire. Jones also found that soldiers in her sample sometimes altered their individual practices or changed their tactics to avoid endangering children. Moreover, soldiers' status as fathers appeared to, at times, influence how they perceived and responded to the child soldiers they encountered, despite their military training. This British soldier noted: 'I guess especially if you have little children, you are thinking of your own children or little brothers or something like that' (Jones, 2016, p. 279).

For professional soldiers, hesitation may lead to a failure to protect and defend oneself and others in the line of fire. Major Chris Hunter (2008) details his experience of hesitation and ultimately being injured during a patrol when a child threw a grenade at his vehicle:

A lad in his early teens comes running out of a shop and lobs a grenade at our vehicle. I could shoot him easily but he's already done what he is going to do, and *I realise I definitely can't bring myself to kill a child*. There's a shuddering explosion next to the vehicle and we are knocked sideways by the blast. Then silence (Hunter, 2008, p. 78, emphasis added).

Minimal research has addressed the use of lethal force against child soldiers and its impact on service members. Limited clinical experience suggests that confronting child soldiers is often experienced as traumatic (Mircica et al., 2011). In fact, Meijer (2011) notes that killing children may be experienced as more traumatic than the killing of adults. He writes: 'personnel who have engaged in combat or killed children find this experience to be particularly traumatic. When it is experienced as traumatic, *it is often experienced as more traumatic than similar, non-child exposure*' (Meijer, 2011, pp. 2–4, emphasis added).

In addition, killing a child is likely to impact not only the individual service member, but also members of their unit. Mircica et al. (2011) write: 'even when a soldier kills a child in self-defence, the impact of killing someone who is traditionally viewed as in need of protection can impact upon unit morale' (pp. 5–20). In Sri Lanka, for example, Indian troops fighting the Liberation Tamil Tigers of Eelam (LTTE) experienced serious losses of morale as they frequently found themselves engaged in battles against children, particularly girls, who populated the ranks of the LTTE (US Marine Corps, 2002).

### 3.1.2. Betrayal-based events: failing to protect a child and institutional betrayal

Betrayal-based events may arise from witnessing or falling victim to a perceived moral violation committed at the individual, institutional, and/or societal levels. This section addresses the betrayal-based events that occur at each of these three levels. At the individual level, for a service member, acts of omission – 'doing nothing' in the face of an injustice – can be as powerful, psychologically detrimental and potentially morally injurious, as acts of commission. Molendijk (2019) provides the example of a Dutch soldier's harrowing moral distress following his inability to protect a child in Afghanistan. The soldier recounted that when he was stationed at a house compound, every night that he was on watch duty he heard an adolescent male of about 14 crying. The child was what Western soldiers often refer to as a 'chai-boy' – those sold to wealthy powerful men for entertainment and sex. The soldier recalled:

And then, I often thought to myself, he's calling for help. And you couldn't do anything. You couldn't say, like, let's just take him with us and protect him. And then you're sitting at your post in the evening and you just hear the kid crying. It was a harrowing sound. And then … you feel … so fucked up. And then, you come back, and then one of your colleagues who takes your place tells you that that kid shot himself in the head with an AK that day. And then you think to yourself, I should have done something. But, I wasn't allowed to. And later you come home, and you start to look into it—maybe I should have done that sooner— but then you start to hear that this was out of the question under the Taliban regime. Boys who are being abused, you get killed for that.

And we just put a police chief there, under *our* NATO regime, and it can just happen again (cited in Molendijk, 2019, p. 267).

When referring to this incident, the same Dutch soldier explained:

These things are so contradictory, *they eat at you* (cited in Molendijk, 2019, p. 267, emphasis added).

Demonstrating the long-term fallout of such betrayal-based events, Molendijk (2019) reported that ten years after the incident, the Dutch soldier wrote the following on his Facebook page:

I/we didn't do nothing to stop the injustice this boy was subjected to … instead I obeyed like a good soldier (p. 267).

While the above example highlights the individual soldier's perceived moral violation and distress from failing to protect a child, it simultaneously draws attention to the reality of institutional betrayal. As noted earlier in the paper, institutional betrayal refers to situations where service members and veterans report experiencing moral betrayal by their military and political leadership and institutions. According to Molendijk (2019), the allusion to institutional betrayal expressed by the Dutch soldier is illustrative of other Dutch service members and veterans' experiences, particularly those deployed to Bosnia. Molendijk (2019) found that Dutch service members and veterans who were deployed to Bosnia reported a profound sense of abandonment and institutional betrayal by the United Nations and their own government. In response, Molendijk notes that a still growing group of 200 former peacekeepers filed a legal claim accusing the Dutch state of knowingly having sent Dutch soldiers on a 'mission impossible' in Srebrenica and of having failed to admit it after having done so.

## 4. Supporting service members and veterans with moral injury: a review of interventions

There is a limited but growing body of literature on interventions for military personnel living with MI. While some of the interventions were developed in response to experiences of PTSD, research presented below suggests that they could also benefit individuals with MI, including those who have MI as a result of encountering children during military service. This section outlines two categories of interventions prominent in the literature: individual-based interventions and group-based interventions. Importantly, current interventions or supports for MI do not specifically address encounters with children. However, given these intervention's focus on shame and guilt, which are important factors in encounters with children, general interventions for MI are likely to be pertinent

when considering encounters with children. Nonetheless, addressing the unique features and implications of PMIEs involving children would be essential.

### 4.1. Individual-based supports

Individualized supports and interventions to address military-related trauma have included *Cognitive Processing Therapy, Impact of Killing, Adaptive Disclosure*, which are summarized below.

### 4.1.1. Cognitive processing therapy

Cognitive Processing Therapy (CPT) aims to alleviate PTSD symptoms by challenging dysfunctional cognitions ('stuck points') to produce more balanced and realistic beliefs. While this intervention was developed specifically for PTSD, it is also being used to treat MI. CPT focuses on cognitions developed as a result of trauma and the role that inaccurate or distorted cognitions have on beliefs, emotional responses and behaviour. For those experiencing MI, a common symptom is 'distorted perceptions and associated exaggerated emotions' (Schuster Wachen, Evans, Jacoby, & Blankenship, 2020, p. 145). As such, a therapy such as CPT, which is aimed at negative cognitions, could benefit individuals with MI. The researchers further point to the frequency of traumatic events experienced by service members that have the potential to represent ruptures in individuals' moral codes as a reason to incorporate CPT into the treatment of MI (Schuster Wachen et al., 2020). Given that 'stuck points' can be related to both transgression and betrayal-based events, CPT may be appropriate when treating MI. According to one research team: 'guilt, self-blame, and betrayal are topics that have been addressed in CPT since its inception' (Held et al., 2017, p. 380). As a result of the focus on these symptoms, the researchers believe the intervention is appropriate for those experiencing MI. To further support the use of CPT as an intervention for MI, another research team notes that although 'CPT was not developed as a primary treatment for moral injury, it has been shown to be effective in a number of populations in which moral injury is prevalent' (Schuster Wachen et al., 2020, p. 147).

CPT is typically conducted 1–2 times per week in an individual format and is divided into three phases: education, processing, and challenging. In Phase One, participants are provided with psychoeducation about the symptoms of PTSD and the development and maintenance of PTSD from a social-cognitive perspective. The goal is to learn about the connection between thoughts and emotions and how to recognize beliefs that result from the traumatic event. Phase Two involves the processing of the traumatic event through engagement with memory, verbally or written. Phase Three further examines clients 'stuck points'

concerning the trauma, in order to both identify and challenge them. The goal is to generate healthier, more accurate beliefs in relation to the self, other and the world (Schuster Wachen et al., 2020).

CPT is associated with statistically significant reductions in trauma-related guilt – a known sign of MI (Griffin et al., 2019). However, Jamieson et al. (2020) note that when used with military populations, CPT dropout rates are high and success rates are low. Koenig et al. (2017) argue that such high dropout rates may in part be caused by the failure of practitioners to address the spiritual nature of MI symptoms, especially among service members and veterans. In response, the research team has put forward a spiritually-oriented CPT, which is specifically aimed to reduce the inner conflict (guilt/shame but also loss of faith) experienced by service members and veterans experiencing MI (Koenig et al., 2017). In echoing the position of Koenig et al. (2017), Pearce, Haynes, Rivera, & Koenig (2018) posit that one of the barriers to recovery from PTSD, is the neglect of spiritual beliefs and ideologies within interventions. Given the correlation between MI and spiritual beliefs or values, the researchers developed a spiritually-integrated CPT, that not only targets the more spiritual aspects of MI, but also utilizes an individual's own spiritual resources within the treatment (Pearce et al., 2018).

For those with MI stemming from PMIE's with children, work by Held et al. (2017) point to the potential benefit of individual-based CPT. In one of their case studies, a veteran who killed children while in the line of duty reported 'reduced feelings of guilt and shame' (Held et al., 2017, p. 387) following a 12 session CPT course of treatment that utilized that as the index trauma.

### 4.1.2. Impact of killing

Among military veterans of multiple service eras, killing in war is associated with increased risk of MI, as well as PTSD, alcohol abuse, suicide, and post-war functional difficulties (Burkman et al., 2021). Burkman et al. (2021) provide examples of some of the common cognitions related to the guilt, shame, self-blame, and self-loathing veterans associated with killing. These include: 'I worry about what my family and friends would think of me if they knew I killed someone' (shame); 'I deserve to suffer for killing' (self-blame); 'I am forever tainted because of killing' (self-loathing); 'Nothing seems important after killing' (loss of meaning); and 'No good person would have done what I did' (moral violation). Given that MI is frequently associated with acts of transgression or betrayal, Impact of Killing (IOK) treatment focuses on self-forgiveness. While not abdicating perpetrators for what they did, or did not do, the treatment works to emphasize that the individuals' past actions 'do not define who a person will be moving forwards'

(Burkman et al., 2021, p. 205). In the therapeutic context, there is a high propensity to avoid the topic of killing, despite it being a source of distress and impairment for veterans and service members. Burkman et al. (2021) note that killing may be seen as an inappropriate therapeutic discussion topic and clients may be concerned about being judged by service providers who are likely to be civilians. Also, service members and/or veterans may feel social stigma because given that they were trained to kill, the aftermath of killing should not bother them. The stigma and taboo associated with speaking about the killing of a child may be even more pronounced than the killing of an adult.

The IOK treatment programme was developed in response to the research findings that veterans who kill in war are at a uniquely high risk of negative mental health outcomes (Burkman et al., 2021). According to Burkman et al. (2021), the treatment aims specifically at treating 'the guilt, shame, self-sabotaging behaviors, functional difficulties, and more and spiritual distress directly associated with killing' (p. 204). Moreover, a fear-based approach, normally used to address PTSD, does not always fit with experiences of killing in war. IOK was designed to help reduce mental health symptoms, functional impairment, and improve adjustment among those veterans and service members who had taken a life in war.

IOK is an individual, cognitive–behavioural treatment consisting of 6–8 weekly sessions lasting from 60–90 minutes and focuses on key themes related to MI including the physiology of combat stress, killing responses in war, acceptance, cognitive restructuring, self-forgiveness and reconnecting with spirituality in a meaningful way. The first session takes an educational approach concerning the biological, psychological and social aspects of killing in war and how these aspects can relate the development of moral injury. Later sessions build on this, exploring meaning, self-blaming cognitions, and opportunities to develop self-forgiveness. Sessions also include the development of an action plan to make amends.

There has been some evaluated success of IOK. In a randomized controlled trial, 33 veterans with PTSD who received IOK treatment reported significantly reduced PTSD symptoms and generalized distress and improved quality of life relative to a wait-list control (Maguen et al., 2017). Moreover, in a qualitative impact evaluation of 28 veterans (one of which had killed a child), participants noted the positive impact of discussing their actions in greater depth and in a supportive and non-judgemental environment as helpful in revaluating some of their own negative self-judgements, leading towards self-forgiveness (Purcell et al., 2016). Participants specifically pointed to the value of the treatment in focusing 'on moral injury and its attention to the spiritual dimensions of postwar healing and reintegration' (Purcell et al.,

2016, p. 670). While there is a lack of research into the effectiveness of IOK in cases where the killing was specifically of children, the emphasis of the treatment on guilt and shame associated with killing suggests that could be a potentially promising intervention for such cases.

### 4.1.3. Adaptive disclosure

Adaptive Disclosure (AD) promotes individual therapeutic change by targeting recognized mechanisms of moral repair, including a secular confession designed to open up the possibility for compassion, forgiveness and reparation. In AD, clinicians are trained to accept, rather than question the responsibility-taking that tends to be endemic in military culture (Griffin et al., 2019). AD involves first disclosing the morally injurious event in a safe therapeutic context and then participating in a therapist-facilitated imagined dialogue with a forgiving and compassionate moral authority about the event, and the self-harm it has caused to the service member or veteran. AD involves an eight-step programme which draws upon an individual cognitive–behavioural-Gestalt intervention. The eight steps include: Connection, Preparation and Education, Modified Exposure, Examination and Integration, Dialogue with a Benevolent Moral Authority, Reparation and Forgiveness, Fostering Connection, and Planning for the Long Haul. While commonly used to treat PTSD, AD specifically targets PMIE's or experiences that can lead to MI such as 'distress related to violation of one's moral code' (Gray et al., 2012, p. 409).

In an open trial of AD among 44 active-duty Marines with PTSD, significant reductions of PTSD symptoms and maladaptive posttraumatic cognitions were observed, as was a significant increase in a measure of posttraumatic growth (Gray et al., 2012). Specifically, AD has led to a decrease in both 'negative believes about the self' and 'negative believes about the world' (Gray et al., 2012, p. 413), both indicative of the rupture of one's moral code, either through transgression or betrayal. In a case study evaluating AD with a combat veteran experiencing MI, the participant documented feeling less hopeless and more engaged in his life following the treatment (Laifer, Amidon, Lang, & Litz, 2015). In non-inferiority randomized control trial of service members, AD was shown to be non-inferior to CPT in reducing PTSD symptoms (Litz et al., 2021). Specifically, though a secondary endpoint, participants documenting experiencing less depression and improved functioning following the AD treatment, indicative of MI-related improvement. AD's focus on forgiveness, compassion, and repair through disclosure of taboo events, and its potential to assist those who have experienced PMIEs or MI as a result of child soldier encounters may be particularly relevant.

## 4.2. Group-based supports to address moral injury

Given the importance of group bonding and the emphasis on peer support within military culture, many practitioners and researchers have noted the benefits of using group-based treatments for MI (Blinka & Harris, 2016). Interventions include *Acceptance and Commitment Therapy* and *Resilience Strength Training,* which draw upon a peer-support model to encourage bonding, trust, and wellness.

### 4.2.1. Acceptance and commitment therapy

This approach to therapy focuses away from treating cognitions to an emphasis on expanding skills and flexibility to deal with life's challenges. In Acceptance and Commitment Therapy (ACT), participants are supported in 'mindful awareness of their experience and acceptance techniques' (Nieuwsma et al., 2015, p. 196). The aim of ACT is to develop psychological and behavioural flexibility to promote non-judgemental acceptance of internal experiences and committed action. ACT focuses on changing one's relationship to pain and the function of pain in one's life. In following, the intense pain of MI can serve as an essential reminder of deeply held personal values and help lead to recovery. ACT is typically administered over the course of 12 sessions and includes three pillars: openness, awareness and engagement. ACT guides individuals in counteracting their ineffective behaviours by re-engaging in meaningful areas of their life. Healing is said to be promoted through accepting the reality of past events, and by opening up to difficult emotions embedded in moral pain. The treatment encourages a compassionate approach towards self. Multiple researchers have pointed to the emphasis of ACT on individuals' values as a reason for the treatment's potential effectiveness in treating MI (Walser & Wharton, 2020; Farnsworth, Drescher, Evans, & Walser, 2017). Through processes of mindfulness and acceptance, behaviour change and commitment, clients are invited 'to open their experiential self while still being engaged in a life guided by meaning' (Walser & Wharton, 2020, p. 179). Borges (2019) points to evidence suggesting the feasibility of ACT among veterans, noting the beneficial impact for those suffering from moral pain, suicide ideation, and depression. Additionally, as this intervention does not forgive or diminish past acts, but instead encourages experiencing deeply the emotions associated with these acts (Walser & Wharton, 2020; Farnsworth et al., 2017), a group setting may be particularly appropriate for healing. The potential connection experienced by group members, especially if they share a common background as veterans or service members, may increase their likelihood of opening up and sharing negative emotions.

While there remains a dearth of random control trials looking into the effectiveness of treating MI with AC, there has been research suggesting the benefits of the modality. Farnsworth et al. (2017) evaluated the feasibility and acceptance of ACT for MI in a group treatment format. In this uncontrolled qualitative research, group members generally reported experiencing benefits from ACT, particularly in the realms of creating a new relationship with their thoughts and reconnecting to their values. Furthermore, a case study of a single individual receiving ACT through a telehealth platform, documented significant improvements in the participant's value-based living and motivations (Borges, 2019). In a group study of the effectiveness of ACT with 33 veterans, results indicated improvements in valued living and the experience of transgression-based MI (Bluett, 2017).

### 4.2.2. Resilience strength training

Resilience Strength Training (RST) is a peer specialist programme that incorporates a military squad model of group trust and bonding that is characteristic of military culture in order to address problems specific to MI, including loss of meaning or faith, loss of trust, self-isolation and the failure of relationships. The programme design was informed by research on the spiritual and religious aspects of MI, on mindfulness and the adaptive disclosure model addressed above. RST normally includes two facilitators and four to eleven participants. The programme uses guided meditation, journaling, and the visual arts, all of which offer access to self-expression and inner awareness (Kopacz et al., 2016).

Barth, Lord, Thakkar, & Brock (2020) conducted a 60-hour pilot RST programme, which included 97 male and female veterans between the ages of 24 and 73. In their pilot programme, mindfulness breathing was used to enable calm, empathic listening and to support group members to stay present and engaged during intense emotional sharing. Visual-creative strategies for self-disclosure were used, including having participants create a mask of their military face, explain it to the group and use it as a visual memory of their experiences. Members were encouraged to share only what they felt comfortable sharing to others. Prior to shared meals, participants engaged in yoga, sitting meditation or labyrinth walking. The goal of these activities was to learn self-calming skills and stress release strategies.

Once MI memories were processed, writing, art, and reflective conversations encouraged explorations of forgiveness and gratitude, meaning, self-acceptance, and life purpose. Facilitators guided conversations about faith, suffering and forgiveness, while respecting diversities of religions and beliefs. Towards the end of the training, participants were asked to reflect on their moral meaning systems as they integrated their MI experiences. Participants shared what they learned and gained from each other, as well as how they will enact their recovery through restoring relationships, civic engagement, or public service and received a certificate upon completion of the programme.

Barth et al. (2020) found that RST significantly improved participants' post-traumatic growth, perceived meaning in life, propensity to trust, dispositional optimism, positive attitudes towards themselves, personal self-esteem, and sleep quality, while decreasing their dependence on both alcohol and sleep medications. The improvements related to self-perception and participants' social orientation, in part evidenced by their reaching out to significant others and important people in their lives during the course of the intervention, speak to the appropriateness of the intervention for use with individuals experiencing MI. Though this pilot programme did not specify or differentiate for MI stemming from incidents with child soldiers, the qualitative results suggest a potential effectiveness. These improvements were more pronounced immediately after the RST programme, but remained significant on most measures 6 months after the training had ended. The limited literature on encounters with child soldiers and their link to PMIEs and MI have pointed to post-deployment feelings of loss of meaning or faith, loss of trust, and self-isolation (Molendijk, 2019; Dallaire, 2011). This programme's focus on these element highlights their potential utility in addressing the complexities involved with encounters with children and child soldiers.

## 5. Conclusion

During a deployment, service members and veterans must make seemingly impossible decisions, including deciding which civilians should be delivered to safe havens, the frustration of not being able to protect civilians, and having to engage with child soldiers. In some instances, decisions made by others, including superiors and/or broader military institutions, may be experienced as a betrayal of what an individual service member or veteran believes to be 'right'. These perceived moral conflicts deserve attention, as do the guilt, shame and personal crises that they may incite. The introduction of the concept of moral injury provides a way for these largely unnamed personal and painful moral conflicts and violations to be recognized, addressed, and with appropriate care, remedied. The diverse individual and group-based interventions developed to support the unique realities of moral injury highlight the multidisciplinary efforts and commitment being put forward to address the psychological, social and spiritual dimensions of MI.

And yet, more empirical and clinical research attention is clearly needed. PMIEs involving children – whether caused by one's own or others' actions – may be particularly detrimental to a service member or veteran's mental health given deeply held Western moral beliefs, expectations and conceptions surrounding children. There are few studies that have explored PMIEs involving children, child soldiers and the possible links to MI. Current knowledge is based mostly on anecdotal evidence shared by service members and veterans in the aftermath of such encounters. This exploratory paper sought to bring together existing literature on PMIEs, moral injury and encounters with children and child soldiers to introduce an understudied topic, illustrate the complexities of the issue, and to offer potential and promising interventions to a topic of growing concern. While such an exploratory review is an initial step in examining the intersecting issues of encounters with children during deployments and the risks of PMIEs and MI, the exploratory review was not without limitations. First, is the nature of the review which was exploratory and not systematic, limiting its ability to draw definitive conclusions. Second, is the reality of culture and context and the focus upon western militaries. Importantly, very little literature has addressed the experience of and interventions for MI (and their relevance) outside of western contexts.[1] This represents a challenge when researching a phenomenon such as MI, as morality and what is considered 'moral' is dependent upon culture and context and thus may dictate what is perceived as morally injurious. The review is thus limited to western societies, calling for greater attention to culture and its relevance for understandings of PMIEs and moral injury, including its relationship to encounters with children and child soldiers. Third, much of the literature on potential interventions for MI lacked evidence from random control trials or similar studies, limiting the definitiveness of any potential conclusions. Nonetheless, the exploratory review highlighted the vital need for systematic research in this area through both qualitative and quantitative means. Quantitative research can, for example, enable an understanding of the breadth and frequency of PMIEs involving children and measure their associated symptoms, while qualitative research can provide depth and detail regarding transgression-based and betrayal-based events, and the individual and collective psychological, social and spiritual implications of guilt and shame. In addition, a focus on prevention is essential, particularly through pre-deployment training. Such training can act as a buffer to prevent and limit the negative impacts of PMIEs that personnel can find themselves in during a deployment. Such trainings, which are increasingly being integrated in military training in Canada and the US, are critically important. Developing research, clinical practice and healing agendas in these areas are imperative.

As encounters with children during deployments are likely to continue, systematic research, ongoing training, and the continued development of healing interventions and prevention strategies are vital to support and protect children in conflict settings, as well as to enable the safety, mental health and well-being of service members and veterans.

## Note

1. For an important exception, please see Zefferman & Mathew (2020).

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## Disclosure statement

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