Moral Injury and Its Effect on Frontline Healthcare Workers: Understanding the Psychological Implications of the COVID-19 Pandemic

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Abstract

The potential for moral injury in healthcare workers is increasingly salient on account of the COVID-19 pandemic. Healthcare workers on the frontlines have faced unprecedented human suffering, extraordinary working conditions, critical resource shortages, and excruciating decisions—with patients' lives hanging in the balance. The COVID-19 pandemic, an incredibly weighty chapter in modern history, has left some healthcare workers questioning themselves and the world around them; their values, beliefs, trust in others, and sense of morality and fairness, deeply compromised. This literature review discusses the rising incidence of moral injury in healthcare workers and the potential implications to heighten awareness and propose means of advocacy and support. A comprehensive examination of moral injury is married with recent empirical findings and practice recommendations. To be effective, field practitioners require foundational knowledge, cultural insight, and awareness of the potentially disproportionate impact of moral injury across healthcare populations. Further, an integrative service delivery model is discussed and proposed. A fulsome understanding of moral injury is becoming increasingly essential as healthcare workers look to mental health professionals for support and competency in this realm. Ongoing and future research is also very much needed. The current deficit of randomized controlled studies and direct research involving healthcare workers limits our current understanding of moral injury, including risk and protective factors and the efficacy of proposed treatment modalities. Now more than ever, the field of psychology needs to partner with and find innovative ways to address moral injury in healthcare populations for those who have offered so much of themselves throughout the COVID-19 crisis.

Keywords: moral injury, healthcare workers, COVID-19 pandemic, Canadian Institute for Public Safety Research and Treatment (CIPSRT), integrative psychology, literature review

Moral Injury and Its Effect on Frontline Healthcare Workers: Understanding the Psychological Implications of the COVID-19 Pandemic

The COVID-19 pandemic has had a significant impact on many frontline healthcare professionals. Physicians, nurses, and other healthcare professionals have faced many difficult decisions in the wake of the pandemic, all too often concerning matters of life and death. These types of pressures, combined with increased exposure to traumatic events, make frontline workers highly susceptible to moral injury.

Although there is no widespread consensus on how moral injury is defined (Griffin et al., 2019), Litz et al. (2009) were among the first to describe the phenomenon. They conceived a person was at risk of moral injury where they "perpetrated, failed to prevent, bore witness to, or learned about acts that transgress deeply held moral beliefs and expectations" (Litz et al., 2009, p. 697). This literature review will examine, evaluate, and synthesize moral injury theory and its seminal literature, which will serve as a framework to explore the COVID-19 pandemic and its effects on frontline healthcare professionals. In this paper, I attempt to address how the concept of moral injury will continue to be relevant in the wake of the COVID-19 pandemic and how it ought to inform future clinical practice in terms of preventative, assessment, and treatment strategies.

The Rationale for This Review

The COVID-19 public health crisis has hastened research and commentary about potential psychological implications of the pandemic, particularly for those working on the front lines in hospital settings. Doctors, nurses, and other healthcare professionals are sometimes making painstaking decisions as they attempt to optimize scarce resources and simultaneously care for critically ill patients (Maguen & Price, 2020). As a result, there is now keen interest and

much speculation about the heavy toll such decision-making will have, combined with unusually high workloads and a growing number of COVID-related deaths across Canada (Government of Canada, 2021a). Consequently, this review is timely and relevant as the academic landscape related to mental health impacts for healthcare workers continues to shift and evolve at a brisk pace.

Some researchers infer that moral injury has a unique symptom profile and trajectory compared to other types of traumas (Griffin et al., 2019). Others speculate there may be linkages between moral injury and compassion fatigue, burnout, posttraumatic stress disorder (PTSD), and secondary traumatic stress (Litam & Balkin, 2020). Nevertheless, there is growing consensus that moral injury is not solely a military-related construct, and it adversely impacts the emotional and physical health, relationships, and functioning of those affected (Griffin et al., 2019). According to Kamkar (2017), a clinical psychologist at the Centre for Addiction and Mental Health (CAMH), moral injury's emotional, cognitive, and behavioural symptoms are vast and can contribute to considerable suffering. Symptoms may include social isolation, shame, guilt, a sense of loss in identity and role, substance abuse, reduced empathy, and suicide ideation, among others (Kamkar, 2017). Adding to the existing literature body in this domain stands to benefit clinicians, professionals experiencing moral trauma, and conceivably motivates future research.

When the Government of Canada introduced their 2018 budget, they identified the treatment of posttraumatic stress injuries among public safety personnel as a priority area (Canadian Institute for Public Safety Research and Treatment [CIPSRT], 2021). The government allocated five million dollars to develop and support a new national research consortium called the Canadian Institute for Public Safety Research and Treatment (CIPSRT, 2021). While doctors, nurses, and healthcare workers do not currently meet CIPSRT’s definition of public service

personnel, the demonstrated commitment to work-related injury and mental health research is at least promising. I anticipate that the academic landscape in this domain will continue to evolve quickly in years to come. This paper creates an argument for including these workers in the definition and thus an expanded scope of support.

Relevance to Counselling Psychology

While not a diagnosis in either the *Diagnostic and Statistical Manual of Mental Disorders 5th ed.* (DSM-5; American Psychiatric Association [APA], 2013), the International Classification of Diseases 11th revision (ICD-11; World Health Organization [WHO], 2019), moral injury can profoundly affect mental health (Currier et al., 2020; Griffin et al., 2019). Despite the term moral injury being reasonably new to the vernacular of mental health, clinicians have been observing and discussing its central importance for some time (Currier et al., 2020). An appreciation for and improved understanding of moral injury is arguably necessary to support effective case conceptualization and treatment planning. While there is still a lack of consensus about its definition, symptomatology, and efficacious approaches and interventions, clinicians are increasingly interested in moral injury and positive means of promoting recovery (Currier et al., 2020).

The extraordinary nature of the COVID-19 pandemic has only heightened this need. As a growing number of healthcare professionals express a need for mental health support on the heels of the pandemic (Gervais, 2021), a more fulsome understanding of moral injury will quickly become a necessity. Moreover, mental health initiatives are already emerging worldwide, many of them highlighting the importance of awareness and ongoing education.

Self-Positioning Statement

The motivation and rationale for this project are admittedly also personal. It is an opportunity to pursue a keen interest and a passion for supporting public safety personnel close to my heart. My parents instilled generosity, compassion, empathy, and a propensity to help others in me from a young age. My dad was a firefighter, and my mom was a nurse; they spent much of their working and personal lives serving others. My brother, Ryan, also proudly served as a firefighter before his cancer-related death at age 33. Within my extended family system is a further network of healthcare professionals, paramedics, and police officers. Additionally, my husband is a disabled veteran of the Canadian Armed Forces who spent time serving overseas in a peacekeeping role. Improving the lives and well-being of public safety personnel, present and former military personnel, and healthcare workers is of utmost importance to me as a result.

Within this project, there is an inevitable susceptibility for bias on my part. While my lived experiences will perhaps afford me insights, they also stand to interfere with my objectivity and neutrality on specific issues. Like many healthcare professionals, I deeply value caring for others, dependability, and compassion. At times, I allow others' needs to trump mine. These core values have guided me throughout my life and underpin my interest in this topic. Further, as a former human resources practitioner and leader, I know firsthand the agony of making difficult choices, sometimes without the luxury of sufficient time or resources. Thus, I empathize with professionals in the medical field, perhaps too enthusiastically. As a result, I was diligent in locating appropriate resources, education, and supervision as this paper took its shape.

Within the phenomenon of moral injury is an inherent concern with the principles of right and wrong behaviour. Here, my presumptions about what is or is not moral/ethical, my values, and my views on religion and spirituality become salient factors. Traditional theology has not

had a significant influence on my life to this point. Nonetheless, as a Canadian-born woman of European ancestry, I acknowledge that the Christian faith tradition has most predominantly infiltrated my worldview. Hence, throughout this project, I intentionally aimed to foster self-awareness, a tolerance for ambiguity, openness to self-reflection, and critical reasoning skills.

Any discussion about moral injury naturally invites an intersection of science and spirituality. After all, a moral injury may, in some cases, lead individuals to question whether their life has purpose and meaning, causing a spiritual or existential struggle (Brémault-Phillips et al., 2019). Tension may arise within oneself; however, "disconnection from self, others and the scared/Transcendent can also occur" (Brémault-Phillips et al., 2019, p. 2). Therefore, I believe a holistic view is necessary, which I have been purposeful to achieve.

I represent Canada's dominant culture in many respects, so I am conscious of my privilege and the possibility that my experiences or views are likely not representative of nondominant groups or peoples. To partially mitigate this risk, I endeavoured to draw from a breadth of academic sources and journals and consult with peers and supervisors as needed. In Canada, frontline healthcare professionals, particularly nurses and doctors, are disproportionately Caucasian (Jefferies et al., 2019; Walji, 2015). Visible and sexual minority groups are wholly underrepresented, yet they are critical in providing culturally sensitive care to patients and our communities at large (Jefferies et al., 2019). To the best of my ability, I have been mindful not to perpetuate dominant ways of thinking, which all too often exclude diverse values and perspectives.

In choosing to engage with this topic, I tacitly support the phenomenon of moral injury and its legitimacy, so I intentionally sought out critical or opposing views. I have attempted to be purposeful in presenting multiple perspectives and representing the inherent complexity

surrounding this topic. Considering my lived experiences and worldview, I believe I could be at risk of overstating the impacts and implications of moral injury for frontline healthcare workers. To minimize what is known as *confirmation bias*, which Kassin et al. (2013) define as "the tendency to interpret, seek, and create information in ways that verify existing beliefs" (p. 128), I have demonstrated a concern for accuracy and open-mindedness and engaged in the process of reflexive journaling throughout.

Psychological Implications of the COVID-19 Pandemic

History demonstrates that disastrous events, including pandemics, take a significant toll on public mental health. Following such events, psychological distress in populations worldwide tends to double or triple (Pain & Lanius, 2020). Although the COVID-19 pandemic is now one of the deadliest in global history (Brockell, 2020; Walsh, 2020), over the last two decades, many countries have grappled with significant infectious disease epidemics, including (a) the Swine flu (H1N1), (b) the Middle East respiratory syndrome-related coronavirus (MERS-CoV), (c) avian influenza (H7N9), and (d) Ebolavirus (Zurcher et al., 2020, p. 2). The consequences of such crises are numerous for the public at large, including considerable fear and concern about infection, worry about family members and friends who risk becoming infected, and the adverse impact of protective measures and restrictions, such as mass quarantining (Zurcher et al., 2020).

Epidemics are similarly problematic for healthcare professionals, compounded by abnormally heavy workloads, staffing shortages, shortages of critical supplies (e.g., ventilators and personal protective equipment), protective measures after disease transmission (i.e., isolation protocols), and the looming fear of infecting immediate family members living in the same household (Zurcher et al., 2020). In a large-scale review of academic literature published over the past 20 years, Zurcher et al. (2020) found the incidence of mental health issues, namely

anxiety, depression, posttraumatic stress, burnout, and other psychiatric conditions, in healthcare professionals during or shortly after public health epidemics to be as high as 88% of the population surveyed. Moreover, healthcare professionals sometimes also experience social isolation and stigma stemming from negative attitudes, mistrust, and a fear of personal encounters (Zurcher et al., 2020).

Emerging research and statistics suggest that healthcare professionals have good reason to be attentive to and even concerned about their physical and mental well-being. In January 2021, the number of reported COVID-19 cases in healthcare workers across Canada grew to 65,920 (Canadian Institute for Health Information, 2021). In many instances, their proximity to the sick and dying makes medical professionals especially susceptible to contracting COVID-19, and this nearness is a key risk factor for psychological distress (Sirois & Owens, 2021). And even before the COVID-19 outbreak, according to available research and reports, many physicians and healthcare workers were already struggling with mental health (Dean et al., 2020; Dutheil et al., 2019). A systemic review conducted in 2019 by Dutheil and colleagues revealed that healthcare professionals were at a substantially higher risk of suicide than the general population, possibly attributable to their work's demanding nature. Further, many physicians, it would seem, were already considering a departure from their profession due to untenable workloads, shrinking budgets, and a growing sense of futility (Dean et al., 2020).

Academics from across Canada and worldwide have been outspoken about the potential short- and long-term mental health impacts of the COVID-19 pandemic on doctors, nurses, and other health professionals (Dean et al., 2020; Galbraith et al., 2021; Stelnicki, Carleton, et al. 2020). Furthermore, initial studies already point to negative mental health implications among nurses (Havaei et al., 2021). The pandemic's turmoil further stretches critical resources,

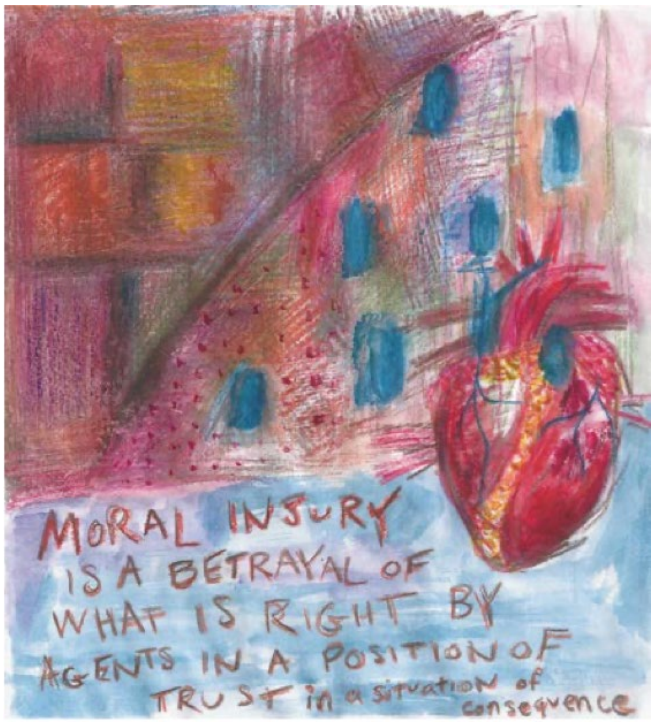
particularly frontline medical staff, to a potential breakpoint. According to Dean, a psychiatrist and mental health advocate, many healthcare workers are afraid to speak out or ask for support for fear of losing their job: "Health care workers have learned that vulnerability—saying 'I need help—is yoked to shame, not courage" (Dean et al., 2020, p. 385). One facet of mental health, namely moral injury, has been of considerable interest and attention. Dean and colleagues (2020) have proclaimed moral injury "the invisible epidemic" (p. 385) within the pandemic. Hence, researchers and clinicians are increasingly interested in how they might best conceptualize, assess, and treat moral injury among patients in clinical settings (Currier et al., 2020).

Moral Injury

The term *moral injury* has become increasingly prevalent in the academic and scientific literature related to psychological trauma (Currier et al., 2020; Shay, 2014). Although there is no one shared or unanimous definition, moral injury, generally involves some betrayal of what is perceived as right or just by an individual (i.e., oneself) or an authority figure (Shay, 2014). It encompasses bearing witness to, failing to prevent, or having to act in a manner that violates deeply held beliefs and expectations, in high-stakes or high-stress situations (Litz et al., 2009; Shay, 2014). In what is now widely viewed as a seminal publication on the topic, Litz et al. (2009) were the first to describe the phenomenon. They conceptualized moral injury as a wounding of one’s character, involving an act of injustice or moral wrongdoing, with or without an intention to cause harm (Griffin et al., 2019; Litz et al., 2009). Since then, numerous academics, mental health providers, artists, organizational and spiritual leaders, and public members have further contemplated, written about, illustrated, and otherwise expanded our collective understanding of the subject (see Figure 1).

Figure 1

An Artist's Depiction of Moral Injury



Note. Termuehlen, G. (2021). Artist's statement: Moral injury. *Academic Medicine, 96*(9), p. 1262. https://doi.org/10.1097/ACM.0000000000004202

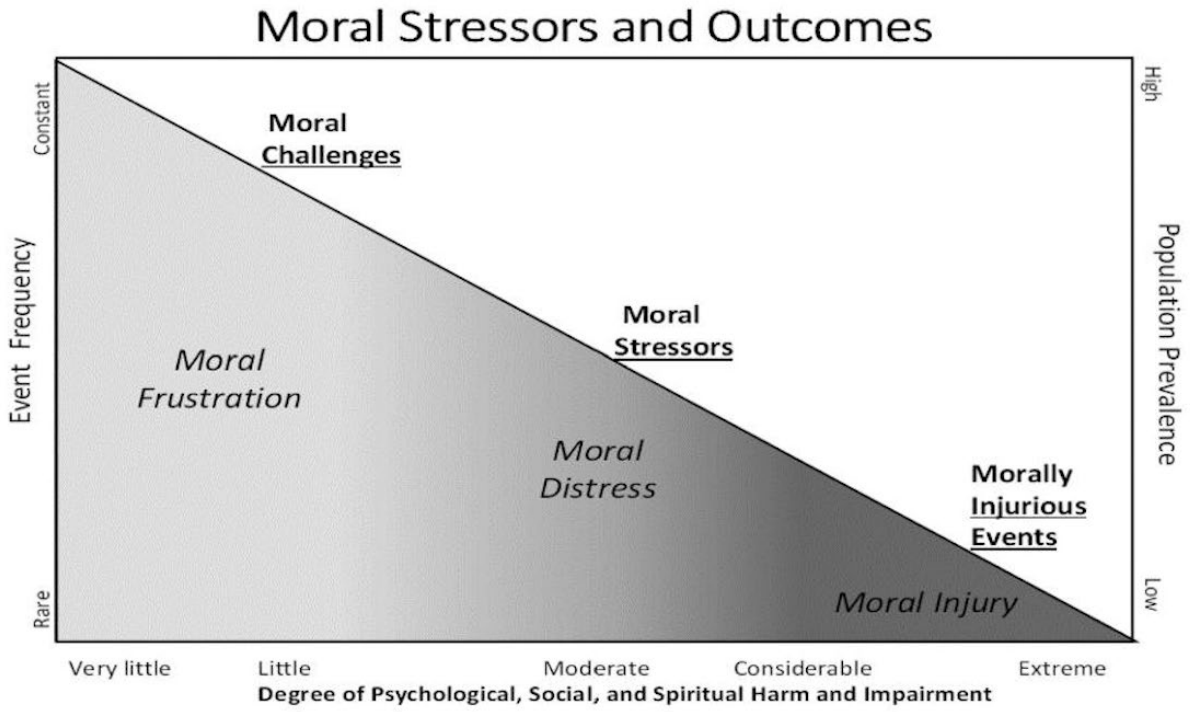
What is or is not a potentially morally injurious event (PMIE) and the symptoms of moral injury are, unfortunately, also lacking consensus. Broadly speaking, however, PMIEs may include (1) witnessing immoral behaviour that leads to the injury, harm, or death of another person; (2) not being able to avert or prevent harm or death in situations that demand difficult choices about who lives and who dies; or (3) the perceived wrongdoing of leaders and organizations whose policies or protocols require workers/members to consciously betray their own ethical code or moral/spiritual beliefs (Kamkar, 2017). Researchers have linked exposure to PMIEs with intense feelings of guilt, shame, sorrow, remorse, self-condemnation, outrage, and a

profound sense of broken trust (Griffin et al., 2019; Nakashima-Brock, 2021). When individuals blame themselves for the transgression, feelings of shame and guilt are typical, along with beliefs and attitudes about worthiness and reprehension (Currier et al., 2020). In contrast, when individuals witness others' moral transgressions or feel betrayed in some way, moral injury tends to be characterized by feelings of anger and disgust, curbed or eroded trust in others, and fantasies of revenge (Currier et al., 2020).

As recently as 2019, Litz and Kerig proposed that PMIEs are possibly best understood in the context of a continuum. A PMIE is the most extreme form of harm or impairment compared to more commonly experienced moral challenges or moral stressors (see Figure 2). Moral challenges may cause frustration, just as moral distress may provoke a strong emotional response (i.e., fear, sadness, anxiety); however, neither is incapacitating. Moral injury, in contrast, has a ubiquitous effect. Not only is an individual's ability to cope compromised—they become identified with or defined by the experience (Litz & Kerig, 2019). The PMIE, whether an act of commission or omission, profoundly alters self-concept (i.e., decency or goodness) and self-esteem. In other-caused transgressions, "anger predominates, with periods of rage, and it is impossible to reconcile the experience without some fantasized redress or at least a change in the others' behaviour" (Litz & Kerig, 2019, p. 346). The event becomes emotionally consuming, and usual coping mechanisms are impaired.

Figure 2

The Continuum of Moral Injury



Note. Litz, B. T., & Kerig, P. K. (2019). Introduction to the special issue on moral injury: Conceptual challenges, methodological issues, and clinical applications, *Journal of Traumatic Stress, 32*(3), 341–349. https://doi.org/10.1002/jts.22405

Beyond the emotional implications of moral injury, academics have speculated there are other facets as well. William Nash (as cited in Nakashima-Brock, 2021) described moral injury as also having implications for relationships (e.g., disconnection), a person's concept of the world (e.g., belief in a high power), and authority over oneself (e.g., a loss of self-restraint). He also posited that moral injury, akin to posttraumatic stress, may develop immediately after an event or long afterward. Litz et al. (2009) and other subject matter experts posit the symptoms of moral injury may in some cases be similar to that of PTSD. However, considerable debate remains

about whether the PTSD framework spelled out in the DSM-5 (APA, 2013) requires revision to account for distress associated with moral injury (Currier et al., 2020). PTSD is primarily regarded as a fear-based disorder, whereas moral injury is grounded in moral reasoning and moral judgement. The two conditions share some common symptoms, yet there are also marked differences. For the time being, at least, moral injury is not a diagnosis. Although dialogue about moral injury as a social and (possible) medical construct has opened over the past decade, a standard working definition remains elusive (Griffin et al., 2019).

Distinguishing Moral Injury From Moral Distress, Burnout, & PTSD

In the healthcare setting, "moral injury describes the challenge of simultaneously knowing what care patients need but being unable to provide it due to constraints that are beyond [one's] control" (Dean et al., 2019, p. 401). It is discrete from burnout, usually typified by an individual's experience of emotional, physical, and mental exhaustion linked to their work environment or excessive work demands (Dean et al., 2019; Koutsimani et al., 2019). The factors that contribute to moral injury are unique (Parker, 2019). While the extreme levels of stress and unrelenting workloads may cause harm to healthcare providers, it is unlikely that they lead an individual to question the essence of their moral identity or their "fundamental beliefs and assumptions about how the world operates" (Litz et al., 2009, p. 700).

Similarly distinctive, moral distress is short-lived (Papazoglou & Chopko, 2017). While it may give rise to temporary feelings of despair or moments of psychological disequilibrium, its effect is generally not lasting. In health settings, providers may make wrong decisions, errors in judgement, or fail to plan adequately; however, the outcome is not necessarily incapacitating, even where a person later experiences remorse or regret (Kalvemark et al., 2004). In healthcare, it is well known that moral and ethical dilemmas abound. For instance, in retrospect, a nurse may

feel decisions made about end-of-life care compromised a patient's right to autonomy, causing her to later question or lament her tacit participation in such. Nevertheless, such moral or ethical point-in-time dilemmas are vastly different from moral injury, which scholars propose is enduring, durable, and in some cases, chronic (Litz et al., 2009). However, it is not to say that the above-noted example would not constitute a PMIE unilaterally.

Academics have extensively argued that moral injury, despite several overlapping symptoms, is also a unique construct compared to PTSD (Currier et al., 2020; Shay, 2014). Firstly, what is known as the *triggering event* in each case is distinct (Shay, 2014). PTSD is a response to actual or imminent death or severe injury (APA, 2013), whereas moral injury is an act that violates firmly held moral beliefs and values (Shay, 2014). The role an individual plays at the time of the event is also discrete. In both PTSD and moral injury, an individual may be witness to or victim of an event; however, the affected person may have committed the act in the case of moral injury (Shay, 2014).

Further, although some of the behavioural, cognitive, and emotional repercussions are similar, there are notable divergence points. Insomnia and intrusive re-experiencing (e.g., nightmares, thoughts, and images), avoidance or numbing behaviours (e.g., alcohol/drug use), and physiological arousal (e.g., anxiety) are common symptoms in each case (APA, 2013; Shay, 2014). However, moral injury's social and emotional markers are generally unique; guilt, shame, anger, self-condemnation, and a desire to hide or withdraw are highly typical (Litz et al., 2009; Shay, 2014). Whereas with PTSD, affected individuals are more likely to experience fear, hypervigilance, horror, and feelings of helplessness (APA, 2013; Shay, 2014).

Theoretical Foundations of Moral Injury

Conceptualizations of moral injury have developed through four fundamental perspectives: (1) cognitive-behavioural, (2) social-functional, (3) religious and spiritual, and (4) biological (Currier et al., 2020; Griffin et al., 2019).

The Cognitive-Behavioural Perspective

The cognitive-behavioural model posits that some individuals are inherently vulnerable to psychopathology development (Currier et al., 2020). When a stressor or activating life event occurs, it interacts with or activates a person's inherent vulnerabilities, such that symptoms develop across physical, cognitive, emotional, and behavioural domains (Currier et al., 2020). Baseline risk factors are understood to include age, gender, genetics, a history of abuse, previous trauma history or psychiatric illness, personality factors (e.g., neuroticism, shame proneness), cognitive predispositions (e.g., cognitive rigidity, global attributions), difficulties identifying and regulating emotion, and so on (Litz et al., 2009). Conversely, protective factors may include adequate social support, cognitive flexibility, physical and emotional safety, high self-esteem, and spiritual and emotional health (Currier et al., 2020; Morris & Mansell, 2018). People who demonstrate cognitive flexibility, for instance, more readily see problems from multiple perspectives and can more readily adopt a problem-solving approach. Further, a person's ability to regulate or exert control over or steady their emotional state amid daily pressures and demands makes them less prone to developing psychopathology (Bryan & Rozek, 2018).

In the case of moral injury, a PMIE (e.g., a supposed betrayal of justice, failing to prevent death) may generate considerable stress or trauma, overwhelming an individual’s ability to cope. Painful feelings or difficult emotions, possibly challenging to adapt to, in turn, spawn maladaptive ways of thinking (e.g., I am worthless) and behaving (e.g., self-harm, substance use,

avoidance). This activated state, “when symptoms are at their peak level of intensity or severity” (Currier et al., 2020, p. 22), is then frequently part of the clinical presentation. The treatment plan, most often, is designed around each of the four domains (i.e., physical, cognitive, emotional, and behavioural) and seeks to alleviate distress through skill development and psychoeducation (Currier et al., 2020).

The Social-Functional Perspective

At its essence, the social-functional perspective assesses and evaluates moral emotions and judgements through a social or relational lens (Currier et al., 2020). Social theorists argue that norms of responsibility and morally congruent emotions serve a much-needed social function (Kassin et al., 2013). As the human species evolved to live in large groups and social communities, harmonious social relationships had survival value, and emotions aided in communication and attunement to others (Currier et al., 2020). Concern for reciprocity, fairness, equity, and social responsibility had powerful effects on human behaviour (Kassin et al., 2013). Still today, principles of right and wrong behaviour (i.e., morality) and emotion, in many respects, continue to define social relationships, social hierarchy, and motivate behavioural appropriateness.

Rather than assuming or labelling psychopathology, clinicians working from this perspective prefer to recognize the evolutionary value of moral emotion and moral reasoning (Currier et al., 2020). When an individual’s attempts to cope with their feelings are unsuccessful, the likelihood of mental health problems increases and the individual may simultaneously experience “dysphoria, social alienation, and relational dysfunction” (Currier et al., 2020, p. 40). Awareness of the functional and adaptive role that morality can play in our day-to-day lives potentially helps clients temper self-blame or incrimination and re-integrate into communities of

family and friends. Clinical interventions, therefore, also aim to facilitate social reengagement and the burgeoning of prosocial behaviours rather than narrowly addressing symptom reduction (Currier et al., 2020).

The Religious and Spiritual Perspective

A good amount of research suggests that the religious and spiritual domain is also an essential factor to consider in moral injury (Currier et al., 2020). Morally injurious events are associated with spiritual/religious (S/R) struggle, disconnection, as well as compromised S/R functioning and development (Brémault-Phillips et al., 2019). Emerging models in this area of literature posit that an individual's S/R beliefs and worldview, including their belief in the sacred or transcendent, represents an "essential feature of the clinical picture" (Currier et al., 2020, p. 53). On its face, this seems sensible given S/R beliefs so often inform our basic understandings of life, death, and what constitutes (or does not) a moral transgression. For some, S/R beliefs further shape or motivate specific life pursuits and represent vital communities of felt belonging.

Disruptions or irreconcilable discrepancies in S/R beliefs, values, and worldview can therefore have profound implications. Morally injurious events commonly lead to "questions, disorientation, and tensions about matters of deepest significance" and stand to disrupt vital social connections (Brémault-Phillips et al., 2019, p. 2). Consequently, a clinician's ability to provide culturally competent assessment and psychotherapy is arguably imperative (Currier et al., 2020). Yet sadly, clinicians are often underprepared to conceptualize and deliver treatment in this cultural domain, thanks to limited opportunities for learning throughout their formal education and clinical training (Currier et al., 2020). Therefore, the role of faith and/or spirituality may advertently or inadvertently be downplayed or ignored in the context of an individual's suffering and healing.

A recent study by Usset et al. (2020) further suggests that an individual's stage of psychospiritual development is also a risk factor for moral injury, and therefore essential to consider in assessment and treatment planning. Individuals in early adulthood, who are most typically at a conventional rather than postconventional stage, may contemplate "spiritual and moral questions concretely and categorically" (Usset et al., 2020, p. 3) rather than critically or on a continuum, which places them at greater risk. The study's authors also rightly point to a need for collaboration between social scientists, theologians, and other helping professionals.

The Biological Perspective

Although few studies have examined moral injury from a biological perspective (Griffin et al., 2019), recent findings suggest the neurobiological markers of moral injury and PTSD are distinct (Sun et al., 2019). Resting-state synaptic activity and fluctuations are predominantly shame- and guilt-related in persons exhibiting symptoms of moral injury, whereas study participants diagnosed with PTSD display a threat and fear response (Sun et al., 2019). Also, connectivity between different brain regions is altered because of PTSD, whereas researchers have not found this to be the case with moral injury (Sun et al., 2019). Nonetheless, these preliminary findings perhaps lend credibility to Nash's (2019) *stress injury model of moral injury,* which posits a literal wounding of the brain. According to Nash, exposure to severe or repeated morally injurious events increases the likelihood that the human stress response system will become overwhelmed, resulting in permanent grey matter volume loss(es).

There is further evidence that moral injury may impact physiological health and well-being as well. Preliminary inquiries examining connections between moral injury and stress-related illness found that moral injury was "associated with difficulty with physical activity and [increased] sensitivity to pain" (Griffin et al., 2019, p. 353; Koenig et al., 2018). Moral injury

might also trigger or worsen stress-related illness; however, there is some evidence to suggest that through therapeutic engagement and talking about one's experiences, high levels of physical distress can be reduced (Ferrajao, 2017; Yan, 2016). In short, while research in this domain is yet limited, mental health clinicians would be remiss to discount or see as inconsequential the emerging neuroscience and the biological basis of moral injury.

Moral Injury in Military Members and War Veterans

Although not the focus of this paper, it must be mentioned that there has been considerable research and interest in moral injury among military members and veterans (Protopopescu et al., 2020). When Litz et al. first declared and discussed moral injury in an academic publication in 2009, it was "proposed to result from grossly disturbing violent wartime experiences such as killing civilians or failing to prevent atrocities" (Frankfurt & Frazier, 2016, p. 319). In these types of situations, service members would, often by necessity, violate their morality repeatedly. In war zones where guerilla warfare tactics were highly prevalent (e.g., Afghanistan, Vietnam), military personnel often reported witnessing or perpetrating brutality toward non-combatants (Frankfurt & Frazier, 2016). In one such study, following Operation Iraqi Freedom (OIF), 28% of United States infantry personnel surveyed reported inadvertently killing at least one unarmed civilian during their deployment (Hoge et al., 2004). Moral injury described the shame, guilt, avoidance, emotional numbing, and intrusive memories that mental health practitioners often observed in combat veterans following these piercing overseas military deployments (Litz et al., 2009).

To date, the research focused on military populations suggests that S/R beliefs represent risk and protective factors equally (Brémault-Phillips et al., 2019). While some individuals may experience or believe in divine forgiveness, others may feel abandoned by God altogether. Moral

injury can sometimes disrupt one's S/R framework; yet meaning-making is often a necessary means of reestablishing connectedness with self, others, and the world (Brémault-Phillips et al., 2019; Evans et al., 2018). Therefore, Suzette Brémault-Phillips et al. (2019) and other academics call for a holistic and culturally sensitive approach in treating moral injuries (see Currier et al., 2015; Evans et al., 2018). Preliminary evidence suggests that social connectedness, the culture to which one returns, and cultural attunement on the part of the treating clinician are crucial to the healing journey (Griffin et al., 2019).

Griffin et al. (2019) rightly point out, "exposure to potentially morally injurious events should not be equated with morally injurious outcomes, per se" (p. 356). Studies involving military personnel suggest that exposure, even to the most hostile and conflict-laden military of theatres, does not foretell or provoke moral injury (Currier et al., 2020; Griffin et al., 2019). Exposure to PMIEs, preliminary evidence astonishingly suggests, is inversely correlated with morally injurious outcomes (Currier et al., 2018; Koenig et al., 2018). Hence it seems plausible that individual and social risk factors may play a substantial role in the onset of moral injury and disconnection.

Moral Injury in Healthcare Workers

There is growing recognition and evidence to support that moral injury is not limited to military contexts (Borges, Barnes, Farnsworth, Bahraini, et al. 2020; Maguen & Price, 2020; Rushton et al., 2021; Williamson et al., 2020). According to the World Health Organization's (WHO) Director-General, Tedros Adhanom Ghebreyesus, the COVID-19 worldwide pandemic has triggered more "mass trauma" than World War II, which will have a lasting impact for many years to come (Feuer, 2021, para 1). Healthcare professionals on the front lines of the pandemic have faced countless challenges and a myriad of moral/ethical decisions and, at times,

confounding moral quandaries. They have also faced higher than usual mortality rates and sadly ineffective treatment options (Roycroft et al., 2020). With limited time to process what is happening around them, the "build-up of 'moral residue,' those niggling doubts about the finely balanced decisions made, can result in moral injury" (Roycroft et al., 2020, p. 312).

The COVID-19 pandemic has placed extraordinary pressure on healthcare systems and workers across Canada, forcing inherently complex and controversial decision-making. Which patient(s) should receive possibly life-saving intensive care treatment when resources are dwindling or finite? For the first time in recent history, healthcare bodies across Canada have developed protocols (i.e., critical care triage frameworks) to help guide these types of agonizing determinations (Kost, 2021). These protocols assist healthcare leaders and practitioners to make prudent and ethical decisions where critical care resources are limited or scarce. With some intensive care units (ICUs) admitting record numbers of COVID-19 patients each day, sometimes outstripping existing capacity, the overarching goal is to save as many lives as possible (Snowdon, 2021).

In Alberta and Saskatchewan, the situation grew increasingly grim in the fall of 2021. The Canadian Medical Association (CMA) called on political, policy, and healthcare leaders to address the apparent "state of crisis" (CMA, 2021, para 2; The Canadian Press, 2021). The CMA advocated for more significant public health restrictions and lockdowns to combat rising rates of infection and ICUs dangerously at or nearing capacity. Alberta's critical care protocol also went into effect (Snowdon, 2021). Even so, healthcare workers are likely to experience significant stress and physical and psychological pressures in other jurisdictions across Canada and around the world.

Connected traumatic experiences include limiting family support and visitation and fractured communication between patients and their immediate family members at the end of life (Shortland et al., 2020). Measures designed to prevent or limit the spread of the virus have forced many patients to suffer in solitude, adrift from usual family support (Siddiqi, 2020). Even worse, some patients die alone. The healthcare professionals who bear witness are often not afforded the luxury of clear boundaries nor the option for objective/detached medical caring (Frezza, 2019). According to many healthcare workers, the anguish and trauma of watching patients die alone during the pandemic are dreadful (Lieberman, 2020).

The following is an excerpt from Rushton et al. (2021) that provides one nurse's firsthand narrative of the trauma of this experience.

> The sighs of the ventilator for the latest patient with COVID-19 remind me how scarce resources are. I see the ones who waited too long and the ones who arrived too late because they live in an underserved community and didn't have access to testing and treatment. When I close my eyes at night, I recall a patient, full of catheters and tubes and attached to machines, who breathlessly whisper words I cannot decipher as his life recedes. Again, I watch the monitor and document the last moments of life as he lay there alone. I hear the pained conversations informing family members that they cannot visit because the risk of spreading the virus is too great; exceptions are made only if we are able to predict when death is near—but now it is often and unpredictably near. And I wonder, "was I a good nurse today? What kind of person have I become?" A year ago, I was one sort of nurse—attentive, compassionate, diligent, quick with a smile and a hug. Being a good nurse aligned with being a good human being.

> Sleep proves elusive, and I feel a fracture between who I want to be and who I sense I am becoming. It hurts. How did this happen? Blame and shame arise for things done or left undone and for harms witnessed but not prevented, both inside and outside the hospital. In the intensive care unit and in the streets, I see that we sink or swim together. What is my contribution? Am I lifting others up or dragging them down? I don't know anymore and wonder where I lost my moral compass. (p. 119)

Above-average workloads, untenable work environments, exposure to violence, and exposure to potentially morally injurious and traumatic events were already a reality for many healthcare workers in Canada long before the COVID-19 pandemic began (Rushton et al., 2021; Stelnicki, Carleton, et al. 2020). In the opinion of Walton et al. (2020), the pandemic is likely to add to "an existing baseline of psychological pathology and low morale in the healthcare sector [worldwide]" (p. 241). Plausibly, the crevasse between personal, professional, and systemic values and their perceived/realized discrepancies will also widen. If, as some early research findings suggest, moral injury precedes the later development of PTSD (Currier et al., 2019), the importance of identifying and addressing mental disorders, including moral distress and injury, is more critical now than ever.

Recent Empirical Studies & Findings

In China, researchers found that healthcare workers in direct contact with COVID-19 patients were at a 28% greater risk of moral injury than their nonexposed counterparts (Wang et al., 2020). Empirical findings in the United States have similarly shown that doctors, nurses, and other healthcare workers acting on the frontline of the COVID-19 pandemic are experiencing high levels of secondary traumatic stress, strongly associated with moral injury (Litam & Balkin, 2020). These findings should come as no surprise, given Zurcher et al.'s (2020) finding that,

across past virus epidemics worldwide (such as the SARS-CoV-2 epidemic), the prevalence of mental health problems in healthcare workers, and the public at large, is notably higher during and after an outbreak.

Yet, who is most at risk? A comprehensive systemic review by Sirois and Owens (2021) revealed that female nurses who experience stigma on the job and have maladaptive coping mechanisms and direct contact with infected patients are most at risk of psychological distress. Each of these factors taken on its own heightens the risk as well. Nevertheless, it would be wrong to assume that female and overtaxed frontline healthcare workers are the only ones potentially affected. A paper published by a Swiss team of researchers, Horsch et al. (2020), demonstrates, for instance, that maternity staff are also at risk for mental health problems, including moral injury, linked to the COVID-19 pandemic. According to Horsch et al., stories are emerging about women induced into labour prematurely or being told they need to have a caesarean section against their wishes as hospitals scramble to manage the influx of critically ill COVID-19 patients and day-to-day operations. Naturally, these types of scenarios and pressures are likely to be morally and ethically distressing to many staff but the pressure to divert resources to COVID-19 patients forces them to make decisions with other patients.

Oncologists and other health providers directly involved in detecting and treating various cancers also deserve consideration. Doctors, out of necessity, altered treatment protocols, postponed surgeries, and delayed investigative procedures as hospitals and essential resources became consumed by an influx of COVID-19 patients (Rashid et al., 2021). Professional carers (e.g., doctors, nurses) faced impossible dilemmas, knowing that cancer patients and positive outcomes hung in the balance (Denys et al., 2020; Rashid et al., 2021). Together with their sick patients, these professionals wrestled with fear and feelings of helplessness, leading to increased

anxiety and depression (Baig, 2021; Thomaier et al., 2020). Of course, not every professional will similarly experience distress nor to the same degree; nonetheless, these types of circumstances are appreciably ripe for deep-seated anger, guilt, shame, and questioning that can lead to moral injury.

It is also useful to remember that not all decisions or dilemmas are necessarily equal. In healthcare settings, complex cases often coincide with extraordinary decision-making, those which may necessitate "different-to-usual practices(s)" (Roycroft et al., 2020, p. 313). While senior staff are typically best equipped to handle and make such decisions, this burden arguably places them at heightened risk. However, this does not suggest that less experienced healthcare workers are not equally or even more susceptible to harm. A recent study which surveyed 4,378 healthcare workers in the United Kingdom (UK) found that young healthcare professionals are, in fact, at heightened risk for adverse psychosocial impacts (Lamb et al., 2021). The likelihood of reported symptoms that paralleled common mental health disorders such as depression, generalized anxiety disorder, and PTSD was most significant in younger workers, women, nurses, and staff who disclosed high exposure to morally harmful situations and events. Mantri et al. (2020a) similarly found work experience and age negatively correlated with symptoms of moral injury in a study of 181 healthcare professionals in the United States shortly before the onset of the COVID-19 pandemic. Junior staff may feel adrift in the frenzy of activity and decision-making around them, not knowing at times what to do or who to reach out to for support. Unchecked feelings of "being unsupported or work being out of control" (Roycroft et al., 2020, p. 313) may diminish resiliency and positive coping over time.

Mohsin et al. (2020) further identify potential risk factors at an individual level. They point to simultaneously high levels of work and personal distress, a lack of social support, direct

exposure to loss of life of vulnerable persons (e.g., a child or person with a disability), general unpreparedness for emotional/psychological consequences, etc. They also address what is known as "moral fatigue" (Moshin et al., 2020, p. S163). Daily, the population at large and healthcare workers, particularly, are confronted with choices (e.g., is it safe to shop for groceries, order delivery, or visit a family member before the next rotation of shifts at work). Taken together, they are a cause of moral fatigue, and a possible precursor to moral injury (Mohsin et al., 2020).

Sadly, we know little just yet about moral injury across different sociocultural contexts. However, if individuals are at increased risk of moral injury (Moshin et al., 2020), when a PMIE coincides with other stressful life events (e.g., divorce, death in the family) then it is reasonable to expect that other social stressors may have a similar effect. Poverty, inadequate housing, systemic racism, preexisting or ongoing forms of discrimination, and social stigma are plausibly risk factors as well. While those employed in the health sector generally have moderate to high earning potential (e.g., doctors, nurses), other frontline workers such as healthcare aides, medical technicians, and general hospital workers often lack this same privilege. In many cases, their ranks are more racially diverse, and their means of living are limited (Gaitens et al., 2021). In studies involving post-war military populations, severe psychological distress, including PTSD, was also more likely when adverse (pre-deployment) childhood experiences were reported (LeardMann et al., 2010). The same is perhaps true of moral injury, although more nuanced research across these socioeconomic domains would undoubtedly be beneficial.

Finally, workplace factors are worthy of mention. More than 11 studies conducted concerning past health epidemics point to organizational support as a critical factor in shielding staff from prolonged psychological distress in general (Sirois & Owens, 2021). Aspects such as positive performance feedback, clear and adequate communication, confidence in leadership, and

access to reliable and timely information (about the outbreak), specifically, were examined by researchers. In the initial months of the COVID-19 pandemic, Hines (2021) and her team at the University of Maryland had a similar finding, albeit this time specific to moral injury. The team surveyed a group of healthcare workers at a set interval to establish whether the incidence of moral injury was increasing over time. While reported cases remained relatively stable over the 3-month timeframe, a key finding was that supportive workplace environments were associated with fewer cases. In contrast, reportedly less supportive workplaces were positively correlated with an increased incidence of moral injury.

Healthcare organizations in Canada are duty-bound to protect their workforce, both from an ethical and moral standpoint (Gaitens et al., 2021; Human Resources and Skills Development Canada, 2015); however, the COVID-19 pandemic presents a unique set of challenges. Several academics have recently called on organizations to support frontline healthcare workers more comprehensively, urging them to take preventative and ameliorating action to advance and protect workers' mental health (Greenberg & Tracy 2020; Roycroft et al., 2020; Williamson et al., 2020). A few examples of the recommendations offered are proactive check-ins, ensuring adequate staffing levels, cultivating calm, facilitating debriefs, multidisciplinary decision-making, regular praise, providing sufficient PPE, and ease of access to psychological support (Roycroft et al., 2020; Walton et al., 2020; Williams et al., 2020). It is beyond the scope of this paper to give an exhaustive review. Still, even when organizational supports are adequately in place, there is evidence that frontline healthcare workers are sometimes reticent, unable, or have difficulty locating suitable help (Gulati & Kelly, 2020; Kingston, 2020).

Vaccination rates have risen substantially in recent months (Government of Canada, 2021a). As of December 1, 2021, 75.92% of Canadians are now fully vaccinated against the

COVID-19 virus (COVID-19 Tracker Canada, 2021). However, healthcare systems in Canada and worldwide remain taxed, with many experiencing staffing shortages that are likely to continue or even worsen as healthcare workers, exhausted, choose to leave or retire (Hessey, 2021; Robertson, 2021). For instance, insufficient staffing levels (i.e., high vacancy rates among nurses) have driven some health jurisdictions in Canada to temporarily add international contract workers to their existing complement (Rieger, 2021). While this is seemingly a positive step, is it too little too late? Deficient staffing levels are a known risk factor that can play a significant role in the onset of moral injury (Mantri et al., 2020a; Rowlands, 2021). Staffing crises and overwhelmed ICUs in Canada have doctors fearing more "dire" situations (Smith, 2021, para 2).

Established Screening Tools & Measures

Over the past decade, several measurement tools designed to assess moral injury were both developed and validated. Psychiatrist William Nash and psychologist Joseph Currier were pivotal innovators in this respect, with Nash developing the Moral Injury Events Scale (MIES) in 2013 and Currier developing the Moral Injury Questionnaire-Military Version (MIQ-M) in 2015. Unfortunately, neither tool adequately considered the S/R aspects of moral injury (also a factor in PTSD), so in 2018, Koenig and a team of researchers introduced the Moral Injury Symptom Scale-Military Short Version (MISS-M). Several studies have since demonstrated that the MISS-M and its close relative, the Moral Injury Symptom Scale-Health Professionals (MISS-HP; see Appendix), are valid and reliable measures of moral injury symptoms (Koenig et al., 2018; Mantri et al., 2020b; Zhizhong et al., 2020). While this seems promising, caution would still be prudent, given the relatively few published studies to date. The current results may or may not generalize across different geographic regions, populations, and cultural groups.

Even though the exact definition of moral injury remains the subject of some debate, the MISS-HP aligns with the definitions initially proposed by Shay (2014) and Litz et al. (2009). The MISS-HP "assesses ten theoretically grounded dimensions or moral injury…[including] betrayal, guilt, shame, moral concerns, loss of trust, loss of meaning, difficulty forgiving, self-condemnation, religious struggle, and loss of religious faith" (Mantri et al., 2020b, p. 2325). While some have described the 10-item MISS-HP assessment as "comprehensive" (Zhizhong et al., 2020, p. 8), it is also brief and thus uncomplicated to administer.

Empirically Supported Treatment Strategies & Clinical Interventions

Although most studies have involved military or veteran populations, several recognizable and novel intervention methods offer hope and promise for the future of moral injury treatment (Griffin et al., 2019). Both Litz (2009) and Maguen (2017) and colleagues piloted modified cognitive behavioural therapies (CBTs), producing preliminary evidence that they are effective means of treatment. Primary themes included psychoeducation about moral injury and common physiological responses, imaginal dialogue (i.e., making amends with self, reparation with others), self-forgiveness, social reconnection, and spirituality. There was also a strong focus on shifting cognitive distortions and reducing maladaptive behaviours in both instances, consistent with most CBT approaches.

Closely related to CBT are three other forms of therapy which have demonstrated positive outcomes: prolonged exposure (PE) therapy, cognitive processing therapy (CPT), and trauma-informed guilt reduction therapy (TrIGR). Psychologists routinely use PE in the treatment of PTSD (Currier et al., 2020). Given PTSD and moral injury sometimes coincide, this course of therapy is seen as both practical and effective (Currier et al., 2020). PE is particularly effective in helping clients work through emotions of guilt and shame, where clinicians

intentionally activate memory structures intending to create discrepancy and destigmatize trauma (Smith et al., 2013). Still, this approach is not without critics, as a moral injury is arguably distinct from PTSD because it is not a "fear-based disorder" (Currier et al., 2020, p. 125). Further, the scientific basis for PE is modest, with no randomized controlled studies to speak of at present.

CPT and TrIGR are trauma-focused therapies closely related to CBT. They target cognitive "stuck points"—faulty beliefs, attitudes, or recurring thoughts about the traumatic or morally injurious event (Currier et al., 2020, p. 118; Haller et al., 2020). CPT attempts to teach clients ways of expressing and managing difficult emotions and greater acceptance of what is. Clinicians may also help clients articulate latent impacts and alter any apparent cognitive distortions about the distressing event(s). Academic debate about the merits of CPT in the treatment of moral injuries is ongoing (Wachen et al., 2017), with proponents pointing to an emerging evidence base for its use with combat personnel (Resick et al., 2017; Wade, 2016). TrIGR is a brief therapy that posits symptom severity worsens when individuals become caught in perpetual cycles of cognitive distortion, specifically concerning guilt and shame (Haller et al., 2020). The first of its kind, a randomized clinical trial involving US veterans is underway to test its efficacy (Capone et al., 2021). Researchers intend to compare outcomes with another therapeutic intervention; however, positive results (i.e., a clinically significant reduction in posttraumatic guilt) could significantly inform future treatment directions. In both cases, however, further scientific examination, particularly in healthcare populations, is needed.

A central aspect of many moral injuries is loss and grief. Recently, researchers have consequently also explored the use of adaptive disclosure (AD) therapy as a basis for treatment (Gray et al., 2012; Litz et al., 2017; Yeterian et al., 2017). Studies have primarily involved

active-duty military personnel (Currier et al., 2020; Gray et al., 2012). AD is a highly experiential, contemporary approach that blends aspects of emotional processing theory and techniques with traditional CBT (Currier et al., 2020). Clinicians attempt to activate memory to reframe emotion-laden distortions or otherwise faulty cognitive appraisals (rather than focusing on extinction, as with CPT). Clients are encouraged to make meaning of past events and talk openly about self and other-oriented forgiveness (Currier et al., 2020). In a comparative study, Yeterian and colleagues (2017) found AD was a more effective treatment for combined PTSD, moral injury, and traumatic loss than present-centred therapy.

Lastly, there is an emerging scientific rationale for using acceptance and commitment therapy (ACT) in moral injury treatment (Borges, Barnes, Farnsworth, Drescher, et al. (2020); Currier et al., 2020; Farnsworth et al., 2017). Borges, Barnes, Farnsworth, Drescher and colleagues (2020) suggest ACT since "moral healing requires both moving toward values and accepting the moral pain in the presence of those values" (p. 98). Further, clients who regard themselves as "fundamentally flawed" (Currier et al., 2020, p. 163) often avoid or attempt to control their own internal experiences rather than accepting them as part of the shared human experience. ACT interventions centre on mindfulness practices and facilitating behavioural change (Currier et al., 2020). Farnsworth and colleagues (2017) conceptualize that ACT may be an effective form of treatment because a moral injury has many inherently social aspects. Research to date has demonstrated that ACT does improve psychological flexibility (Farnsworth et al., 2017).

Implications for Counselling Psychology

For some time now, clinicians have well understood that the strength of the therapeutic alliance is paramount in any counselling context—a critical aspect of any positive therapeutic

effect. Working with healthcare professionals requires cultural sensitivity, awareness, and humility on the practitioner's part. Punctuated by its many subcomponents, any healthcare system/setting is a distinct work environment with unique cultural nuances. Most clinicians, not having their own direct experience to draw from, would therefore be wise to engage with clients from a place of openness and genuine curiosity. Notwithstanding, a basic knowledge of health systems, work contexts, and health occupations and their potential role in the development of moral injury is still advantageous.

Moral injury is as damaging as it is challenging to redress (Litz & Kerig, 2019). A robust therapeutic relationship necessitates emotional connection, trust, and agreement on the goals (i.e., the desired outcome) and means (i.e., how to proceed) of therapy (Currier et al., 2020; Miller et al., 2004). Currier et al. (2020), who have written extensively about the treatment of moral injury in military populations, also appropriately highlight that the treating clinician needs to be aware that the shame, guilt, and remorse symptomatic of moral injury may stifle client disclosure. For this reason, clarifying goals, means, and roles in the early stages of therapy is potentially advantageous toward building a foundation of trust and a felt connection with the therapist (Currier et al., 2020).

Integrative Psychology & The Integrative Psychologist

Increasingly, in popular media and medical journals across North America, the notion of *integrative medicine* is being discussed (Bell et al., 2002; Mayo Clinic, 2021). This healthcare delivery model and approach to client care emphasizes the biopsychosocial and spiritual dimensions of the person and their treatment. Medical treatment plans may include a variety of therapies or a range of approaches, acknowledging each "person as a complex living system" (Bell et al., 2002, p. 133). A doctor working with a patient diagnosed with diabetes, for example,

may consider how body-based therapies, energy medicine, or mind-body interventions may possibly complement standard medical interventions and nutritional supports. In essence, the medical practitioner pans out to consider the whole over its parts.

If likened to the Grand Canyon, moral injury has many unique dimensions and viewpoints (e.g., cognitive, behavioural, social, S/R, biological), many depths and crevices, and peaks and valleys. The perspective from each lookout point is intriguing yet highly distinctive. Rather than simply focusing on one aspect of the problem (i.e., one viewpoint), clinicians would be wise to consider the myriad of elements that may have likely played a role in the development of moral injury, as well as a range of possible solutions. In much the same way, integrative medicine has begun to demonstrate that a broader, more holistic view and approach affords more extraordinary service to clients (Maizes et al., 2009)—counselling psychology can and ought to consider the same.

The integrative psychologist considers with whom they may need to seek consultation or collaboration (e.g., pastoral care, medical or behavioural specialists) to benefit their client(s) optimally. Morality and S/R beliefs are interwoven for many individuals (Currier et al., 2020), and it is incumbent on the practitioner to recognize and attend to this reality. Clients are likely to present with a diverse range of S/R backgrounds and belief structures, of which the clinician cannot be a single authority. Consultation with S/R leaders, whether they be priests, rabbis, imams, ministers, or mullahs, or otherwise, stands to strengthen case conceptualization and treatment (Currier et al., 2020). Furthermore, since forgiveness issues are often central to moral injury, it is essential to understand its essence and meaning(s) if derived from S/R traditions.

When it comes to moral injury, the psychological is rarely divorced from the existential. As Currier et al. (2020) note, the “line between mental health and spiritual care can be blurry

particularly for the individual who is suffering" (p. 247). Yet, mental health practitioners are less likely to follow traditional religious ideology than the client populations they serve (Vieten et al., 2013). Thus, they may be naive or ill-equipped to help. S/R leaders in all forms, therefore, ought to be viewed as critical cultural informants, a means of improving or augmenting professional range and competency.

Appropriately assessing and understanding critical S/R belief structures and social conditioning stands to speed up healing and recovery (Currier et al., 2020). However, the integrative psychologist may also look to S/R traditions and consider how the intentional use/creation of sacred time and space and the power of ritual foster transformation. In religious contexts, cathedrals, temples, music, prayer, singing, chanting, recitation of vows or scripture, and endowment are commonly intentional and repetitive aspects of gathering and ceremony. Most of these practices date back centuries, long before psychology as a discipline emerged in the 20th century (Vieten et al., 2013). Conceptually, incorporating and being intentional about these elements (i.e., creating sacred therapeutic space, ritual) in the overarching psychological approach to moral injury treatment is likely also advantageous.

Treating moral injury is also possibly a team effort (Currier et al., 2020). It may be necessary to "pan out" and consider how S/R experts and care are positive adjuncts to the psychological domain. A team approach may also be attractive to clients seeking "a holistic experience" (Currier et al., 2020, p. 254). Nevertheless, few clinical or private practice settings offer, and therefore seemingly value, such integration. As Turok (2012) poignantly said, "it is time to connect our science to our humanity" (as cited in Tallis, 2013, para 7), which encompasses and has long encompassed, for vast numbers of people, the S/R domain. Over the last decade, countries such as China and India have recognized and realized the potential benefits

of collaboration. Both countries have expanded access to mental health services for millions of people thanks to cooperation with "traditional healers, herbalists, spiritual guides … and Ayurveda medicine" (Carey, 2016, para 9).

In short, the integrative psychologist must not underestimate the value and necessity of engaging with those who can offer specialized knowledge, serve as cultural informants, or otherwise augment care. Since there is considerable variation among healthcare workers across Canada and within different jurisdictions, gaining access to and nurturing professional relationships across various disciplines and domains is vital. It is also worth remembering that important cultural informants are the healthcare workers themselves. Clients are often best positioned to help practitioners understand and make sense of their unique cultural identities. A further reason for clinicians to engage with healthcare workers with a spirit of cultural curiosity, respect, and reciprocity (Arthur & Collins, 2010).

Adopting a Long-Range View of The Problem

The community of psychologists who have studied and written about moral injury related to the COVID-19 pandemic is united in anticipating that the pandemic will have long-lasting mental health implications for healthcare workers (Dean et al., 2019; DePierro et al., 2020; Zurcher et al., 2020). DePierro et al. (2020) liken the pandemic response to the activity immediately following the 9/11 terrorist attacks. A lesson learned, he suggests, is that long-term mental health monitoring will be necessary. The United States developed a database of responders and survivors following 9/11 to help those in need locate and access mental health benefits and resources, particularly consequential for vulnerable workers. Zurcher et al.'s (2020) comprehensive literature review of articles published over the past decade further crystalizes the known long-term effects of virus epidemics on healthcare workers. For that reason, psychologists

would be remiss to believe that lower rates of infection or admittance to hospitals linked to the COVID-19 pandemic signify the current crisis is over, or the incidences of mental health issues or moral injury will subside.

As with the 9/11 attacks, generations of people and workers will long remember and perhaps be affected by the COVID-19 pandemic (DePierro et al., 2020). Several studies, including one large-scale survey in the UK, were recently initiated with hopes of exploring the long-range impacts of the COVID-19 pandemic (GOV.UK, 2021). The same is true for frontline healthcare workers, specifically (Hines et al., 2021; Walsh, 2020). In the meantime, clinicians would be prudent to integrate evidence-based practices while keeping abreast of the dynamic academic landscape and growing body of research on moral injury. Historically, however, adverse mental health impacts have persisted long after most documented global and national disease endemics and disasters (Zurcher et al., 2020).

Awareness of the Potentially Disproportionate Impact Across Healthcare Workers

Preliminary findings from the UK suggest that healthcare workers from nondominant ethnic backgrounds are disproportionately affected by the COVID-19 virus (Qureshi et al., 2021). Those who contract the virus have markedly poorer health outcomes and higher mortality rates (Qureshi et al., 2021). Qureshi and colleagues (2021) point to several possible reasons for this, centred around "power, subjectivity and social systems and how these elements can result in discrimination" (p. 29). In Canada, the situation is presumably similar.

Healthcare workers from nondominant ethnic backgrounds are not only potentially more affected by the COVID-19 virus, but they occupy positions of greater vulnerability. Racial, ethnic, and minority groups make up approximately 15% of the total workforce in Canada yet are disproportionately represented in entry and higher-level positions (i.e., management, senior

specialist; Jefferies et al., 2019; Premji & Etowa, 2014; Qureshi et al., 2021). Premji and Etowa (2014) extracted and analyzed data from Statistics Canada's 2006 census to find that racial, ethnic, and minority persons represented only 9% of managers. Yet conversely, this group represented 21% of all nurse aides. Thus, minority groups are disproportionately on the front lines, where exposure and risk are greatest.

Psychologists treating moral injury in nondominant populations should know that themes and experiences such as bullying, prejudice, and discrimination, together with other harms, biases, and inequities, are possible layers of added complexity. As Qureshi et al. (2021) highlight, beyond overarching shortages of PPE, racial minorities working in healthcare settings may experience further exposure and risk infection due to ill-fitting clothing or equipment. Age, sex, and other social factors (e.g., socioeconomic status, intergenerational living) may also be factors worthy of exploration. In brief, counsellors need to have a heightened awareness of the potentially disproportionate impacts of the COIVD-19 virus, systemic imbalances, and the myriad of ways personal and social factors may contribute to the problem or complicate treatment.

Awareness, Education, and Advocacy

Counselling psychologists work with a myriad of clients and an array of problems. There is a vast scope of roles within the profession and volumes of academic literature published in any given year. It is a daunting challenge for most practitioners to keep pace with the rapidly changing landscapes and emerging science. Given that moral injury is relatively new to the professional vernacular, some may need first to familiarize themselves with the term and its scientific underpinnings. This awareness and understanding are particularly salient for clinicians working directly with clients who have experienced trauma or providing services to populations

with known exposure to PMIEs (e.g., healthcare workers, public safety personnel, immigrants, abuse survivors; Currier et al., 2020). In these cases, clinicians should minimally familiarize themselves with symptom presentation, assessment protocols, evidence-based practices (and theoretical footings), as well as prospective implications for clients. Without a proper and fulsome understanding of moral injury, there is a potential risk of harm to clients. Responsible and ethical care for clients involves acquiring sufficient knowledge, competently applying skills, and exercising good judgement (Truscott & Crook, 2013).

Part of professional competency also involves formulating a reasonable and grounded clinical assessment. Moral injury can profoundly affect individuals, family systems, and organizations (Currier et al., 2020), yet it can quickly go undetected. Therefore, clinicians would be wise to conduct an assessment that considers S/R background, values, and inquiry about PMIE (Currier et al., 2020), a point expanded upon in subsequent sections of this review.

Counselling psychologists can play a vital role in educating clients, the community, and organizational leaders about moral injury's prevalence, potential magnitude, and early signs of distress in individuals (Currier et al., 2020). To do this, psychologists will need to continue to be intentional about establishing and nurturing trusting relationships with healthcare workers, clients, community groups, and leaders in health organizations and sectors. A solid relational foundation will likely spawn more advocacy opportunities, further accelerating public awareness and positive change within healthcare organizations and national networks. Walton et al. (2020), Hossain and Clatty (2021), and Greenberg and Tracy (2020) were quick to voice their concern for healthcare workers amid the COVID-19 pandemic and offer many helpful and pragmatic recommendations for healthcare leaders in terms of how to recognize, detect, and prevent moral

injury (e.g., acknowledging successes, instilling hope, reinforcing social support, education, and training for frontline leaders).

Developing health promotion and prevention programs is crucial for promoting positive social change (Arthur & Collins, 2010). Arguably, counselling psychologists could significantly reduce moral injury's personal and social costs by developing and emphasizing preventative programs tailored to healthcare workers. As Dutch researcher Tine Molendijk highlights, moral injury "is not purely an academic problem but an issue that needs a hands-on approach" (Dutch Research Council [NWO], 2020, para 5). Time and financial resources get poured into developing more and better therapies, with seemingly insufficient focus on preemptive programming emphasizing means of enhanced resiliency. Researchers at the University of Laval received funding from the Department of National Defence (Government of Canada, 2021b) to explore how healthcare workers can employ positive coping skills and health organizations can improve psychosocial working conditions amid the COVID-19 pandemic. The aim is two-fold: to better respond to frontline healthcare workers' current (and future) needs and to develop policy and strategies designed to enhance decision-making, workspaces, and workplace culture. Even so, ostensibly, it amounts to a drop in the ocean.

Fundamental Next Steps for Research

Currently, there is no agreed-upon definition of moral injury. Several academics have written about and attempted to define the construct of moral injury, and thankfully many core elements have emerged; however, the definition continues to evolve (Litz & Kerig, 2019). Sadly, the apparent lack of consensus inhibits future research. Few randomized controlled studies, the gold standard in establishing causal relationships between variables, have been conducted concerning moral injury, partly for this reason. The absence of empirical research limits our

collective understanding of the prevalence of PMIEs and moral injury, risk and protective factors, the efficacy of treatments, and a comparative appraisal of treatment interventions, to name only a few.

Thankfully, it seems there is consensus that the notion of moral injury is worthy of future exploration. The development of a coherent and widely accepted definition of moral injury is currently unfolding. While it is natural to want to hasten the pace at which this occurs, for the sake of those afflicted, it is worth recalling that PTSD was first introduced in the DSM-III in the 1980s, after decades of debate and more loosely being known as "shell shock" (History.com Editors, 2018, para 1). The diagnostic criteria for PTSD and its diagnosis were slow to coalesce, as psychiatrists, psychologists, and other experts attempted to explain the disorder and settle upon an agreed cluster of symptoms. The PTSD diagnosis remains controversial today, and over the past 40 years, its definition and diagnostic criteria have undergone several rounds of correction and amendments (North et al., 2016). Nonetheless, the research and clinical branches of psychology would be wise to continue collaborating to clarify the bounds of moral injury (i.e., criteria, symptoms, specifications) and its possible uniqueness as a condition. In the meantime, "we should not shy away from using the term 'moral injury'" (Nash, 2019, p. 466).

An exhaustive commentary on the pros and cons of a mental health diagnosis is beyond the scope of this paper; however, standardization in how moral injury is defined would surely lead to enhanced assessment and treatment capability. The MISS-HP, for instance, would likely be refined or even replaced by increasingly sophisticated diagnostic tools. A coherent and harmonized definition of moral injury is also likely to synchronize future research and funding in this field.

Further study involving healthcare workers, expressly, is also needed. The existing research involving military and veteran populations will undoubtedly be a jumping-off point for this future effort. That said, researchers need to understand, appreciate, and further explore the critical differences between these populations when it comes to moral injury.

In 2018, when the Canadian Institute for Public Safety Research and Treatment (CIPSRT) assembled, its mandate linked to improved research, treatment, training, and enhanced knowledge repositories for public safety personnel (PSP). Healthcare workers, whose needs have only intensified due to the COVID-19 pandemic, were not explicitly included in the PSP definition. Now is the time, it would seem, to reassess CIPSRT's current mission and mandate. Adjoining healthcare workers' needs with the needs of PSP, who are similarly prone to stressor-related injuries (including but not limited to moral injury), together with enhanced government funding, is critically important. Alternatively, a parallel national research consortium is another consideration, but, presumably, scale effects would be lost.

Creating a national repository of information, tools, and resources for healthcare workers and health leaders designed to guide understanding of moral injury, promote resiliency, and point the way to available resources is also imperative. In Canada, the Centre for Excellence on PTSD (2021) has taken some initial steps toward this goal in developing their website: moralinjuryguide.ca. However, publicly available resources arguably need to be consolidated so healthcare workers across the various health jurisdictions in Canada can know of and access them with ease. The Centre’s primary focus (to this point) has primarily been military veterans and the first responder (i.e., PSP) population.

What is sorely missing in both academic and nonacademic literature is the narrative of the lived experience of moral injury. Accounts of moral injury are often second-hand or

theoretical in nature. One might reason this is possibly tied to high levels of personal and social stigma continuing to act as a barrier. However, research must include these perspectives to promote awareness and understanding, reduce stigma, and foster empathy and compassion within and outside healthcare settings. In short, quantitative research about moral injury, which is needed and will unquestionably be beneficial, should not forsake interest in qualitative accounts and study.

Studies involving veterans suggest a relationship between PMIEs and self-injurious behaviours such as substance abuse, self-harm, and suicidality (Frankfurt & Frazier, 2016). Military personnel and veterans who experienced PMIEs in the context of war were at significantly higher risk of alcohol abuse, had a greater propensity to take risks (i.e., self-harm), and had greater suicide risk. Could the same also be true for healthcare workers? In a recent survey, Stelnicki, Jamshidi, et al. 2020) found nurses in Canada had higher rates of suicide ideation (i.e., thoughts or ideas about ending one's life) and attempts, differentiated from the general population. Further research is necessary to determine if this finding could be linked to their repeated exposure to PMIEs.

In 2019, Griffin et al. commented on the biopsychosocial spiritual model as a possible overarching structure to guide future research. This humanistic and holistic view of the human experience seems indeed an excellent framework. The four pillars of this model (i.e., biological, psychological, spiritual, and social) are especially salient in moral injuries. The current body of research viewed through this lens is sparse regarding moral injury's biological and spiritual aspects. As Griffin et al. (2019) noted, and is still true today, within the spiritual pillar, most research is Christianity-centric. Further, the vast majority of published psychological literature is arguably drowning in cognitive (i.e., CBT) favouritism.

In the future, one can hope that we will know more about treatment options for moral injury and their efficacy. Perhaps, as witnessed with PSP, internet-delivered therapy and education opportunities and trauma-informed workplace programs, such as the Before Operational Stress (BOS) program (Wounded Warriors Canada, 2021), will begin to be offered for healthcare workers. Preventative tools and programs are an essential component of holistic psychological care, as previously emphasized. Future research will, without doubt, explore the effectiveness of these types of offerings so facilitators can continually improve upon them.

Recommendations for Practice

Effectively supporting frontline healthcare professionals, at its core, comes down to cultural acuity. Firstly, mental health practitioners need to be attentive to this population's difficulties in accessing counselling services, particularly considering extended hours and shift work demands. It is also common for shift workers to experience sleep disruption or disturbances that negatively impact physical and mental health (Caruso, 2014). Therefore, counselling services need to complement their busy lives, work/sleep schedules, and well-being, not further detract. The extraordinary demands of the COVID-19 pandemic create barriers to service that service providers can overcome through flexible scheduling, focused intervention, and telehealth services.

A typical therapy session will last 45 to 60 minutes; however, clinical settings may necessitate brief interventions as clients attempt to manage competing priorities (Litam & Balkin, 2020). In contrast, other clients may prefer extended duration sessions on days off. Thankfully, the pandemic has brought about a new wave of online therapy platforms and options. Teletherapy, once considered taboo, is becoming ever more commonplace, and outcomes have tended to be on par with traditional delivery methods (Bestsennyy et al., 2021; Knowlton &

Nelson, 2021). In these unprecedented times of COVID-19, mental health practitioners need to exercise creativity and find new ways of adapting to the unique needs of this population rather than dismissing or downplaying them.

The negative effect of the pandemic on healthcare workers' mental health has been repeatedly documented (Nelson & Kaminsky, 2020; Søvold et al., 2021). The long-drawn-out nature of the pandemic, repeated trauma exposures, and unrelenting workloads are ripe for a gradual uncoiling. Understanding that healthcare professionals are often reticent to seek support and may feel wary of speaking up about the guilt and shame they harbour or the difficulties they are experiencing, clinicians need to probe for signs and symptoms of moral injury actively. In their work with veterans, Norman and Maguen (2021) found that some clients are reluctant to disclose their experiences fully, fearing judgement and disgust on the part of the clinician. Naturally, such reactions can cause harm and are worthy of self-reflection and exploration on the part of the clinician, should they arise.

Nonetheless, a skillful inquiry is critical. Assessing PMIEs when interviewing healthcare professionals may uncover pivotal stories or events that are a factor in their presenting symptomatology. The following questions are adapted from Currier et al.'s (2020, p. 94) book, *Addressing Moral Injury in Clinical Practice,* and serve as examples.

1. Have your values or morals ever been compromised at work?
2. Have you or a colleague ever made what you feel to be a grave mistake?
3. Have you witnessed an event or situation that infringed upon your values or morals?
4. Have you ever felt let down or betrayed by someone in a way that contravened your values or what you believed to be morally right?
5. Have you ever faced a moral dilemma that you still struggle to make sense of?

6. Have you ever felt you or someone else ought to have done something that they did not?

Beyond a thorough assessment, an essential aspect of creating and sustaining an effective therapeutic alliance involves helping clients understand the nature of a moral injury and legitimizing their suffering. While researchers and clinicians have only recently attempted to distinguish and describe moral injury—it is far from a new phenomenon. Although not described as such, scholars and military experts wrote much about moral injury in ancient times and throughout the war-torn 20th century (Currier et al., 2020; Litz & Kerig, 2019). Consequently, the term moral injury has become narrowly associated with military service and deployments. In working with healthcare professionals, clinicians should be mindful of the potential for bias and misunderstanding in themselves and their clients. In all its forms, moral injury ought to be acknowledged, validated, and treated with the same care and compassion as any other physical or mental setback or injury. Educating clients about the nature and consequences of moral injury, a term that clients may not be familiar with or fully comprehend, is a vital aspect of any therapeutic engagement.

For many individuals, moral injury is "the guilt and shame consuming one's conscience [that] stem from actions that one took or failed to take" (Purcell et al., 2018, p. 3). Moral injury often manifests in self-harming, self-deprecating, and self-handicapping behaviour (Litz et al., 2009). Stricken individuals also tend to overstress personal responsibility and culpability. Consequently, forgiveness, self-compassion, and self-care are essential elements in moral repair. In military populations, fostering forgiveness (forgiveness of others and self-forgiveness) is reported to be a powerful change mechanism (Bryan et al., 2015; Currier et al., 2020; Purcell et

al., 2018). However, many clinicians will realize that cultivating forgiveness and self-compassion in clients is not always an easy feat.

Promoting forgiveness requires a safe, open, compassionate space for healthcare professionals to process and make sense of their experiences. Although clinicians may feel the temptation to provide early assurances, there is plenty of evidence to suggest that attempts to ameliorate complicated feelings quickly, or condone or excuse behaviour, will only impede meaningful progress (Currier et al., 2020). Glib statements such as "you did the best you could" or "you are not to blame" are likely to keep clients stuck. Clinicians ought to reserve personal judgments and instead focus on evidence-based interventions without expecting or involuntarily insisting on a brief reparation. The academic literature associated with forgiveness and self-compassion is plentiful. Eminent scholars and authors such as Neff (2011) and Gilbert and Choden (2014), among others, have written extensively about the topic. Academic literature linking forgiveness and self-compassion and moral injury is growing (see Kelley et al., 2019 & Purcell et al., 2018), yet more research remains needed—particularly with the frontline healthcare provider population.

So far as self-compassion and forgiveness, CBT-oriented therapies and interventions are likely to be a suitable course of therapy. Litz et al. (2009) suggest “couching” self-compassion as *making amends* and generating “realistic and doable behavioural tasks in service of this goal” (p. 704). More specifically, interventions may include letter writing (to self or others), exercises of perspective-taking, recognizing, and modifying “should-statements,” reframing critical self-talk, guided meditation, or imaginal exercises, and so on (Currier et al., 2020; Neff, 2011). Concerning forgiveness, clinicians may also wish to explore Griffin et al. (2016) and the proposed two-factor model of self-forgiveness, which emphasizes a need for positive values and

enhanced self-esteem. Internet-accessible information such as *The Forgiveness Project* (2021), which collects and shares stories (i.e., testimonials), educational resources, tools, and publications, is also a solid starting point for practitioners and clients.

Although healthcare professionals are accustomed to caring for patients, the COIVD-19 pandemic represents a health crisis like no other. Most have not witnessed anything like it. Generally, health professionals possess similar personality traits: caring, empathy, meticulousness, hardiness, conscientiousness, responsiveness, and persistence (Richardson et al., 2009). While these carer traits positively contribute to their overall effectiveness, there will be familiarity and comfort in putting others' needs ahead of their own. Regarding self-care, Hossain and Clatty (2021) offer two evident yet still poignant aspects for consideration—fostering moral resilience and self-stewardship.

Moral resilience can be promoted by encouraging frontline workers to explore and trust personal values and beliefs more deeply, maintain perspective by keeping contextual elements forefront, and consider what is and is not in their control in various circumstances. According to Hossain and Clatty (2021), from a position of moral resilience, healthcare workers "can precede without seeing themselves as deficient, not doing enough, weak or neglecting others" (p. 28). It is important to remind clients that their health and well-being are essential to care for others. That preparation, practice, and ongoing and creative exploration of what works and does not are imperative. Self-care is a necessary means of parasympathetic arousal and regulating cortisol levels during these extraordinary times. Suggest activities that support physical care, meaning-making (e.g., volunteerism, hobbies), social support, mindfulness, and calm.

Self-stewardship is a notion that goes hand in hand with moral resiliency, and it is the "skill of tending to and nurturing one's well-being" (Hossain & Clatty, 2021, p. 28). Clinicians

ought to consider reframing self-care as a skill and continuous process that requires active development and inspired action. Clinicians can support clients in becoming more attuned to their energy levels—and thoughtfully tending this limited resource. Hossain and Clatty (2021) also suggest professional forums or otherwise safe and supportive communities wherein healthcare professionals can openly express frustrations, receive information and emotional support, and share common experiences as a positive psychological intervention.

As a final note, the Canadian Centre for Excellence—PTSD and the Phoenix Australia—Centre for Posttraumatic Mental Health recently collaborated to develop and publish a resource specially designed for frontline healthcare workers and organizational leaders, titled *Moral Stress Amongst Healthcare Workers During the COVID-19 Pandemic* (Phoenix Australia—Centre for Posttraumatic Mental Health & Canadian Centre for Excellence—PTSD, 2020). It is an all-encompassing guide to moral injury, complete with proposed individual, team, and organizational considerations. Clinicians would be wise to review the guide, consider with whom they might share this resource (e.g., clients, fellow clinicians, healthcare leaders), and contemplate how the recommendations can integrate into their approach and practice.

Reflexive Self-Statement

As this literature review took shape and progressed, I periodically noted my reactions and experiences. As I began to write about self-compassion, an essential aspect of moral injury treatment, I empathized with healthcare workers at large who have and will wrestle with this, as I have. These days, my compassionate self is more vital than ever; I am intentional about fostering positive self-regard and self-sustaining practices. Even so, periodically, I still drift back into old habits and old patterns. I similarly found myself wrestling with the notion of a DSM-5 diagnosis for moral injury. I cringe at our collective eagerness to pathologize normal human behaviour, yet

the pragmatist in me recognizes its different aims and the overwhelming benefits of a common taxonomy. Again and again, I read, mused, and was carried away by honest contemplation and self-reflection.

I also noticed that the notion of integrative psychology is something I feel passionately about; this possibly stems from years spent working as a human resources practitioner in large, multifaceted organizations. I grew to navigate and depend on my colleagues in other disciplines. Their perspectives, knowledge, and honesty, while sometimes humbling, almost always resulted in significant shifts in my thinking or conceptualization of matters and was a considerable part of my growth as a rising professional. There is now a vast body of evidence showing that diverse, multidisciplinary teams are the most productive and effective (Rock & Grant, 2016; Rock et al., 2016). I hope that the field of counselling psychology will ever-increasingly embrace the essence of this type of model.

Nevertheless, I can appreciate the challenges that are inherent in partnership, consultation, and collaboration. As I navigated writing this literature review, I could not help but notice the glaring discrepancy between my words and actions. After all, I mostly sat alone, studiously formulating, conjecturing, and writing. Input from others was pitifully scarce. At one point, as I was becoming aware of and reflecting on this discrepancy, I decided I ought to heed my advice. I reached out and went to meet with a trusted S/R mentor. Together, we discussed moral injury, and as predicted, our conversation sparked new ideas, opened new avenues of inquiry and research, and, I believe, positively contributed to the outcome. I am indebted and grateful for this connection and opportunity. The learning is reinforced (yet again) within me as it might not otherwise have been. Still, there was likely room for more.

The consultation with my S/R mentor also yielded humility, and it was an important reminder—everything old is new again. Moral dilemmas, moral distress, and even moral injury have arguably existed for as long as humanity itself, albeit not called such (Currier et al., 2020; Litz & Kerig, 2019). In ancient Greece, moral philosophers such as Aristotle, Plato, and Socrates, laid the foundation for Western conceptualizations of morality, virtue, and justice (Truscott & Crook, 2013). The term moral injury is perhaps just a new perspective on an age-old problem. Nevertheless, I remain hopeful about a brighter future for those affected.

As a clinician aspiring to treat trauma, PTSD, and moral injury occurring in healthcare workers and PSP, I relished the opportunity to dive into this topic and body of literature. I am infinitely more knowledgeable and prepared for the task ahead as a result.

Conclusion

As illustrated, moral injury can profoundly affect the health and well-being of individuals, including healthcare workers. The COVID-19 pandemic is one of the heaviest chapters in modern history. Healthcare workers on the frontlines have made excruciating decisions. In some cases, those agonizing decisions have left them questioning their values, morality, and dearly held beliefs about others and our world.

This literature review consolidates the latest research on moral injury put forward by many eminent academics in psychology, who have (and will continue to) evolve our understanding of this critical issue. The academic landscape is fast-changing, so clinicians will need to keep abreast of emerging science, and in so doing, hopefully, they will feel compelled to also advocate for expanded supports and funding for future research. Advocacy and support are possibly how the psychological community, governments, and the public can and will give back

to frontline healthcare workers who have given so much of themselves throughout the long-drawn-out COVID-19 crisis.

Clinicians will most certainly see an uptick in healthcare workers seeking mental health services and who are grappling with moral injury, exhaustion-burnout, or even PTSD during and following the pandemic. Understanding the fundamentals of moral injury is essential (e.g., theoretical bases, symptoms, means of assessment and treatment). Still, beyond this, clinicians also ought to consult and collaborate with supervisors, peers, healthcare groups and leaders, and other adjunct experts. The notion of integrative psychology and the integrative psychologist discussed in this review is purposeful. Ideally, it sparks interest in and critical thinking about the value of collaboration and partnership and the innovative ways this might (continue to) occur.

The concept of moral injury, and its proposed definition, are inextricably linked to one's ideals and beliefs about morality and virtue. Therefore, a client's S/R background and belief structures also require assessment—more than purely the psychological or physiological, clinicians may also catch glimpses of a wounded spirit. The mending of all these parts is an incredibly delicate task that requires a robust working alliance. Trust, cultural insight, respect, and compassion are four crucial cornerstones; clinicians must be intentional about advancing these elements early in treatment.

Cultural attunement extends well beyond S/R beliefs, however. All aspects of a person's cultural identity (e.g., age, sex, position, professional experience, ethnic background, race) that inform their worldview and shape their lived experience are consequential to treatment. Underrepresented racial, ethnic, and minority groups in healthcare settings stand to be disproportionately affected by COVID-19 and moral injury.

Moral injury, in general, stands to compromise usual high standards of care for patients and possibly, a healthcare worker's ability to feel as though they can carry on in the profession. Negative feelings of guilt, shame, resentment, anger, and a sense of betrayal are common emotional indicators. There may be behavioural signs and symptoms as well (e.g., self-harm, reduced coping capacity). Counsellors have a crucial role in identifying and treating moral injuries, a perhaps underappreciated consequence of the COIVD-19 pandemic. Regrettably, health professionals will possibly feel the pandemic's heavy toll and its corollary effects for several years to come. If ever there was a time that the counselling psychology community needs to be equipped and ready to serve, this must be it.

References

American Psychiatric Association [APA]. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). https://doi.org/10.1176/appi.books.9780890425596

Arthur, N., & Collins, S. (Eds.). (2010). *Culture-infused counselling* (2nd ed.). Counselling Concepts.

Baig, J. (2021, February 12). COVID's impact on cancer care is turning oncologists' worst fears into reality. *NBC News*. https://www.nbcnews.com/think/opinion/covid-s-impact-cancer-care-turning-oncologists-worst-fears-reality-ncna1257743

Bell, I. R., Caspi, O., Schwartz, G. E. R., Grant, K. L., Gaudet, T. W., Rychener, D., Maizes, V., & Weil, A. (2002). Integrative medicine and systemic outcomes research: Issues in the emergence of a new model for primary health care. *Archives of Internal Medicine, 162*(2), 133–140. https://doi.org/10.1001/archinte.162.2.133

Bestsennyy, O., Gilbert, G., Harris, A., & Rost, J. (2021, Jul 9). *Telehealth: A quarter-trillion-dollar post COVID-19 reality?* McKinsey & Company. https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/telehealth-a-quarter-trillion-dollar-post-covid-19-reality

Borges, L. M., Barnes, S. M., Farnsworth, J. K., Bahraini, N. H., & Brenner, L. A. (2020a). A commentary on moral injury among health care providers during the COVID-19 pandemic. *Psychological Trauma, 12*(S1), S138–S140. https://doi.org/10.1037/tra0000698

Borges, L. M., Barnes, S. M., Farnsworth, J. K., Drescher, K. D., & Walser, R. D. (2020b). A contextual behavioral approach for responding to moral dilemmas in the age of COVID-

19. *Journal of Contextual Behavioural Science, 17*, 95–101. https://doi.org/10.1016/j.jcbs.2020.06.006

Brémault-Phillips, S., Pike, A., Scarcella, F., & Cherwick, T. (2019). Spirituality and moral injury among military personnel: A mini-review. *Frontiers in Psychiatry, 10*, 276–276. https://doi.org/10.3389/fpsyt.2019.00276

Brockell, G. (2020, November 19). 250,000 lives lost: How the pandemic compares to other deadly events in U.S. history. *The Washington Post*. https://www.washingtonpost.com/history/2020/11/19/ranking-covid-deaths-american-history/

Bryan, C. J., & Rozek, D. C. (2018). Suicide prevention in the military: A mechanistic perspective. *Current Opinion in Psychology, 22*, 27–32. https://doi.org/10.1016/j.copsyc.2017.07.022

Bryan, A. O., Theriault, J. L., & Bryan C. J. (2015). Self-forgiveness, posttraumatic stress, and suicide attempts among military personnel and veterans. *Traumatology, 21*(1), 40–46. https://doi.org/10.1037/trm0000017

Canadian Institute for Health Information. (2021, February 25). *COVID-19 cases and deaths in health care workers in Canada*. https://www.cihi.ca/en/covid-19-cases-and-deaths-in-health-care-workers-in-canada

Canadian Institute for Public Safety Research and Treatment [CIPSRT]. (2021). *About CIPSRT*. https://www.cipsrt-icrtsp.ca/en/about-cipsrt

Canadian Medical Association [CMA]. (2021, September 29). *We need to mobilize now: Alberta and Saskatchewan's health systems at breaking point*. https://www.cma.ca/news-releases-

and-statements/we-need-mobilize-now-alberta-and-saskatchewans-health-systems-breaking

Capone, C., Norman, S. B., Haller, M., Davis, B., Shea, M. T., Browne, K., Lang, A. J., Schnurr, P. P., Golshan, S., Afari, N., Pittman, J., Allard, C. B., & Westendorf, L. (2021). Trauma informed guilt reduction (TrIGR) therapy for guilt, shame, and moral injury resulting from trauma: Rationale, design, and methodology of a two-site randomized controlled trial. *Contemporary Clinical Trials, 101*, 1–7. https://doi.org/10.1016/j.cct.2020.106251

Carey, B. (May 18, 2016). China and India burdened by untreated mental disorders. *The New York Times*. https://www.nytimes.com/2016/05/19/health/china-and-india-burdened-by-untreated-mental-disorders.html

Caruso, C. C. (2014). Negative impacts of shiftwork and long work hours. *Rehabilitation Nursing/Journal of the Association of Rehabilitation Nurses, 39*(1), 16–25. https://doi.org/10.1002/rnj.107

Centre for Excellence on PTSD. (2021). *Moral stress amongst healthcare workers during COVID-19 a guide to moral injury*. https://veteransmentalhealth.ca/research-projects/moral-injury/

COVID-19 Tracker Canada. (2021). *COVID-19 vaccination tracker* https://covid19tracker.ca/vaccinationtracker.html

Currier, J. M., Drescher, K. D., & Nieuwsma, J. A. (Eds.). (2020). *Addressing moral injury in clinical practice*. American Psychological Association. https://doi.org/10.1037/0000204-000

Currier, J. M., Farnsworth, J. K., Drescher, K. D., McDermott, R. C., Sims, B. M., & Albright, D. L. (2018). Development and evaluation of the expressions of moral injury scale—

Military version. *Clinical Psychology and Psychotherapy, 25*(3), 474–488. https://doi.org/10.1002/cpp.2170

Currier, J. M., Holland, J. M., & Malott, J. (2015). Moral injury, meaning making, and mental health in returning veterans: Moral injury and meaning. *Journal of Clinical Psychology, 71*(3), 229–240. https://doi.org/10.1002/jclp.22134

Currier, J. M., McDermott, R. C., Farnsworth, J. K., & Borges, L. M. (2019). Temporal associations between moral injury and posttraumatic stress disorder symptom clusters in military veterans. *Journal of Traumatic Stress, 32*, 382–392. https://doi.org/10.1002/jts.22367

Dean, W., Jacobs, B., & Manfredi, R. A. (2020). Moral injury: The invisible epidemic in COVID health care workers. *Annals of Emergency Medicine, 76*(4), 385–386. https://doi.org/10.1016/j.annemergmed.2020.05.023

Dean, W., Talbot, S., & Dean, A. (2019). Reframing clinician distress: Moral injury not burnout. *Federal Practitioner, 36*(9), 400–402. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6752815/

Denys, A., Guiu, B., Chevallier, P., Digklia, A., de Kerviler, E., & de Baere, T. (2020). Interventional oncology at the time of COVID-19 pandemic: Problems and solutions. *Diagnostic and Interventional Imaging, 101*(6), 347–353. https://doi.org/10.1016/j.diii.2020.04.005

DePierro, J., Lowe, S. &, Katz, C. (2020). Lessons learned from 9/11: Mental health perspectives on the COVID-19 pandemic. *Psychiatry Research, 228*, 113024, 1–4. https://doi.org/10.1016/j.psychres.2020.113024

Dutch Research Council [NWO]. (2020, November 26). *Moral injury: Prevention is better than cure*. https://www.nwo.nl/en/cases/moral-injury-prevention-better-cure

Dutheil, F., Aubert, C., Pereira, B., Dambrun, M., Moustafa, F., Mermillod, M., Baker, J. S., Trousselard, M., Lesage, F., & Navel, V. (2019). Suicide among physicians and health-care workers: A systematic review and meta-analysis. *PloS One, 14*(12), 1–28. https://doi.org/10.1371/journal.pone.0226361

Evans, W. R., Stanley, M. A., Barrera, T. L., Exline, J. J., Pargament, K. I., & Teng, E. J. (2018). Morally injurious events and psychological distress among veterans: Examining the mediating role of religious and spiritual struggles. *Psychological Trauma, 10*(3), 360–367. https://doi.org/10.1037/tra0000347

Farnsworth, J. K., Drescher, K. D., Evans, W., & Walser, R. D. (2017). A functional approach to understanding and treating military-related moral injury. *Journal of Contextual Behavioral Science, 4*, 391–397. https://doi.org/10.1016/j.jcbs.2017.07.003

Ferrajão, P. C. (2017). Pathways between combat stress and physical health among Portuguese war veterans. *Qualitative Health Research, 27*(110), 1640–1651. https:/doi.org/10.1177/1049732317701404

Feuer, W. (2021). WHO says pandemic has caused more "mass trauma" than WWII. *CNBC.com*. https://www.cnbc.com/2021/03/05/who-says-pandemic-has-caused-more-mass-trauma-than-wwii-and-will-last-for-years.html

Frankfurt, S., & Frazier, P. (2016). A review of research on moral injury in combat veterans. *Military Psychology, 28*(5), 318–330. https://doi.org/10.1037/mil0000132

Frezza, E. (2019). Moral injury: The pandemic for physicians. *Texas Medicine, 115*(3), 4–6. https://www.texmed.org/template.aspx?id=49983

Gaitens, J., Condon, M., Fernandes, E., & McDiarmid, M. (2021). COVID-19 and essential workers: A narrative review of health outcomes and moral injury. *International Journal of Environmental Research and Public Health, 18*(4), 1446–1464. https://doi.org/10.3390/ijerph18041446

Galbraith, N., Boyda, D., McFeeters, D., & Hassan, T. (2021). The mental health of doctors during the COVID-19 pandemic. *BJPsych Bulletin, 45*(2), 93–97. https://doi.org/10.1192/bjb.2020.44

Gervais, B. (2021, September 18). Traumatized nurses fighting to get mental health treatment amid fourth wave. *Calgary Herald*. https://calgaryherald.com/news/local-news/traumatized-nurses-fighting-to-get-mental-health-treatment-amid-fourth-wave

Gilbert, P., & Choden. (2014). *Mindful compassion: How the science of compassion can help you understand your emotions, live in the present, and connect deeply with others*. New Harbinger Publications.

GOV.UK (2021). *Research study into long-term health impacts of COVID-19 launched in the UK*. https://www.gov.uk/government/news/research-study-into-long-term-health-impacts-of-covid-19-launched-in-the-uk

Government of Canada. (2021a). *Coronavirus disease 2019 (COVID-19): Epidemiology update*. https://health-infobase.canada.ca/covid-19/epidemiological-summary-covid-19-cases.html

Government of Canada. (2021b). *Moral injury on the frontlines: See, prevent, treat: Competitive projects*. https://www.canada.ca/en/department-national-defence/programs/defence-ideas/element/competitive-projects/challenges/moral-trauma-frontline-see-prevent-treat.html

Gray, M. J., Schorr, Y., Nash, W., Lebowitz, L., Amidon, A., Lansing, A., Maglione, M., Lang, A. J., & Litz, B. T. (2012). Adaptive disclosure: an open trial of a novel exposure-based intervention for service members with combat-related psychological stress injuries. *Behaviour Therapy, 43*(2), 407–415. https://doi.org/10.1016/j.beth.2011.09.001

Greenberg, N., & Tracy, D. (2020). What healthcare leaders need to do to protect the psychological well-being of frontline staff in the COVID-19 pandemic. *BMJ Leader, 4*(3), 101–102. https://doi.org/10.1136/leader-2020-000273

Griffin, B. J., Moloney, J. M., Green, J. D., Worthington, J., Everett L, Cork, B., Tangney, J. P., Van Tongeren, D. R., Davis, D. E., & Hook, J. N. (2016). Perpetrators' reactions to perceived interpersonal wrongdoing: The associations of guilt and shame with forgiving, punishing, and excusing oneself. *Self and Identity, 15*(6), 650–661. https://doi.org/10.1080/15298868.2016.1187669

Griffin, B. J., Purcell, N., Burkman, K., Litz, B. T., Bryan, C. J., Schmitz, M., Villierme, C., Walsh, J., & Maguen, S. (2019). Moral injury: An integrative review. *Journal of Traumatic Stress, 32*(3), 350–362. https://doi.org/10.1002/jts.22362

Gulati, G., & Kelly, B. D. (2020). Physician suicide and the COVID-19 pandemic. *Occupational Medicine 70*(7), 514. https://doi.org/10.1093/occmed/kqaa104

Haller, M., Norman, S. B., Davis, B. C., Capone, C., Browne, K., & Allard, C. B. (2020). A model for treating COVID-19–related guilt, shame, and moral injury. *Psychological Trauma: Theory, Research, Practice & Policy, 12*, S174–S176. https://doi.org/10.1037/tra0000742

Havaei, F., Smith, P., Oudyk, J., & Potter, G. G. (2021). The impact of the COVID-19 pandemic on mental health of nurses in British Columbia, Canada using trends analysis across three

time points. *Annals of Epidemiology, 62,* 7–12. https://doi.org/10.1016/j.annepidem.2021.05.004

Hessey, K. (2021, April 24). 'I couldn't take it anymore': Why some medical staff are calling it quits amid COVID-19. *Global News*. https://globalnews.ca/news/7782649/covid-19-medical-staff-mental-health/

Hines, S. E., Chin, K. H., Glick, D. R., & Wickwire, E. M. (2021). Trends in moral injury, distress, and resilience factors among healthcare workers at the beginning of the COVID-19 pandemic. *International Journal of Environmental Research and Public Health, 18*(2), 488–499. https://doi.org/10.3390/ijerph18020488

History.com Editors. (2018, Aug 21). *PTSD and shell shock*. History.com. https://www.history.com/topics/inventions/history-of-ptsd-and-shell-shock

Hoge, C. W., Castro, C. A., Messer, S. C., McGurk, D., Cotting, D. I., & Koffman, R. L. (2004). Combat duty in Iraq and Afghanistan, mental health problems and barriers to care. *The New England Journal of Medicine, 351*(1), 13–22. https://doi.org/10.1056/NEJMoa040603

Horsch, A., Lalor, J., & Downe, S. (2020). Moral and mental health challenges faced by maternity staff during the COVID-19 pandemic. *Trauma Psychology, 12*(S1), S141–S142. https://doi.org/10.1037/tra0000629

Hossain, F., & Clatty, A. (2021). Self-care strategies in response to nurses' moral injury during COVID-19 pandemic. *Nursing Ethics, 28*(1), 23–32. https://doi.org/10.1177/0969733020961825

Human Resources and Skills Development Canada. (2015). *Occupational health and safety: Pamphlet 2A employer and employee duties*. https://www.canada.ca/en/employment-social-development/services/health-safety/reports/duties.html

Jefferies, K., Tamlyn, D., Aston, M., & Tomblin Murphy, G. (2019). Promoting visible minority diversity in Canadian nursing. *Canadian Journal of Nursing Research, 51*(1), 3–5. https://doi.org/10.1177/0844562118795812

Kalvemark, S., Hoglund, A. T., Hansson, M. G., Westerholm, P., & Arnetz, B. (2004). Living with conflicts—Ethical dilemmas and moral distress in the health care system. *Social Science & Medicine, 58*(6), 1075. https://doi.org/10.1016/S0277-9536(03)00279-X

Kamkar, K. (2017, September 14). *Moral injury*. Centre for Addiction and Mental Health [CAMH]. https://www.camh.ca/en/camh-news-and-stories/moral-injury

Kassin, S., Fein, S., Markus, H. R., & Burke, T. M. (2013). *Social psychology* (2nd ed.). Nelson.

Kelley, M. L., Bravo, A. J., Davies, R. L., Hamrick, H. C., Vinci, C., & Redman, J. C. (2019). Moral injury and suicidality among combat-wounded veterans: The moderating effects of social connectedness and self-compassion. *Psychological Trauma, 11*(6), 621–629. https://doi.org/10.1037/tra0000447

Kingston A. M. (2020). Break the silence: Physician suicide in the time of COVID-19. *Missouri Medicine, 117*(5), 426–429. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7723130/pdf/ms117_p426.pdf

Knowlton, C. N., & Nelson, K. G. (2021). PTSD telehealth treatments for veterans: Comparing outcomes from in-person, clinic-to-clinic, and home-based telehealth therapies. *Journal of Rural Mental Health*. Advance online publication. https://doi.org/10.1037/rmh0000190

Koenig, H. G., Ames, D., Youssef, N. A., Oliver, J. P., Volk, F., Teng, E. J., Haynes, K., Erickson, Z. D., Arnold, I., O'Garo, K., & Pearce, M. (2018). Screening for moral injury: The moral injury symptom scale - Military version short form. *Military Medicine, 183*(11-12), e659–e665. https://doi.org/10.1093/milmed/usy017

Kost, H. (2021, April 28). AHS to brief health-care workers on triage protocol in case of 'dire situation' should occur. *CBC News.* https://www.cbc.ca/news/canada/calgary/triage-alberta-health-services-covid-pandemic-1.6005595

Koutsimani, P., Montgomery, A., & Georganta, K. (2019). The relationship between burnout, depression, and anxiety: A systematic review and meta-analysis. *Frontiers in Psychology, 10*, 284–284. https://doi.org/10.3389/fpsyg.2019.00284

Lamb, D., Gnanapragasam, S., Greenberg, N., Bhundia, R., Carr, E., Hotopf, M., Razavi, R., Raine, R., Cross, S., Dewar, A., Docherty, M., Dorrington, S., Hatch, S., Wilson-Jones, C., Leightley, D., Madan, I., Marlow, S., McMullen, I., Rafferty, … Wessely, S. (2021). Psychosocial impact of the COVID-19 pandemic on 4378 UK healthcare workers and ancillary staff: Initial baseline data from a cohort study collected during the first wave of the pandemic. *Occupational and Environmental Medicine*, Epub ahead of print, 1–8. https://doi.org/10.1136/oemed-2020-107276

LeardMann, C. A., Smith, B., & Ryan, M. A. (2010). Do adverse childhood experiences increase the risk of postdeployment posttraumatic stress disorder in US Marines? *BMC Public Health, 26*(10), 1–8. https://doi.org/10.1186/1471-2458-10-437

Lieberman, C. (2020, March 9). The trauma of watching patients die alone from COVID-19 [Video]. *Global National News.* https://globalnews.ca/video/7687337/the-trauma-of-watching-patients-die-alone-from-covid-19

Litam, S. D. A., & Balkin, R. S. (2020). Moral injury in health-care workers during COVID-19 pandemic. *Traumatology, 27*(1), 14–19. https://doi.org/10.1037/trm0000290

Litz, B. T., & Kerig, P. K. (2019). Introduction to the special issue on moral injury: Conceptual challenges, methodological issues, and clinical applications. *Journal of Traumatic Stress, 32*(3), 341–349. https://doi.org/10.1002/jts.22405

Litz, B. T., Lebowitz, L., Gray, M. J., & Nash, W. P. (2017). *Adaptive disclosure: A new treatment for military trauma, loss, and moral injury*. Guilford Press.

Litz, B. T., Stein, N., Delaney, E., Lebowitz, L., Nash, W. P., Silva, C., & Maguen, S. (2009). Moral injury and moral repair in war veterans: A preliminary model and intervention strategy. *Clinical Psychology Review, 29*(8), 695–706. https://doi.org/10.1016/j.cpr.2009.07.003

Maguen, S., Burkman, K., Madden, E., Dinh, J., Bosch, J., Keyser, J., Schmitz, M., & Neylan, T. C. (2017). Impact of killing in war: A randomized, controlled pilot trial. *Journal of Clinical Psychology, 73*(9), 997–1012. https://doi.org/10.1002/jclp.22471

Maguen, S., & Price, M. A. (2020). Moral injury in the wake of Coronavirus: Attending to the psychological impact of the pandemic. *Psychological Trauma, 12*(S1), S131–S132. https://doi.org/10.1037/tra0000780

Maizes, V., Rakel, D., & Niemiec, C. (2009). Integrative medicine and patient-centered care. *Explore, 5*(5), 227–289. https://doi.org/10.1016/j.explore.2009.06.008

Mantri, S., Lawson, J. M., Wang, Z., & Koenig, H. G. (2020a). Prevalence and predictors of moral injury symptoms in health care professionals. *The Journal of Nervous and Mental Disease, 209*(3), 174–180. https://doi.org/10.1097/NMD.0000000000001277

Mantri, S., Lawson, J. M., Wang, Z., & Koenig, H. G. (2020b). Identifying moral injury in healthcare professionals: The moral injury symptom scale–HP. *Journal of Religion and Health*, 59, 2323–2340. https://doi.org/10.1007/s10943-020-01065-w

Mayo Clinic. (2021). *Integrative medicine and health: Overview*. https://www.mayoclinic.org/departments-centers/integrative-medicine-health/sections/overview/ovc-20464567

Miller, S., Duncan, B., & Hubble, M. A. (2004). Beyond integration: The triumph of outcome over process in clinical practice. *Psychotherapy in Australia, 10*(2), 32–80. https://www.scottdmiller.com/wp-content/uploads/documents/BeyondIntegration.pdf

Mohsin, A. K. M., Hongzhen, L., Sume, A. H., & Hussain, M. H. (2020). Analysis of the causes of moral injury in the outbreak of 2019-nCoV. *Psychological Trauma, 12*(S1), S1625–S164. https://doi.org/10.1037/tra0000720

Morris, L., & Mansell, W. (2018). A systematic review of the relationship between rigidity/flexibility and transdiagnostic cognitive and behavioral processes that maintain psychopathology. *Journal of Experimental Psychopathology, 9*, 1–40. https://doi.org/10.1177/2043808718779431

Nakashima-Brock, R. (2021). *Moral injury*. Volunteers of America. https://voa-production.s3.amazonaws.com/uploads/pdf_file/file/2970/Mora_Injury__Identity_and_Meaning.pdf

Nash, W. P. (2019). Commentary on the special issue on moral injury: Unpacking the two models for understanding moral injury. *Journal of Traumatic Stress, 32*(3), 465–470. https://doi.org/10.1002/jts.22409

Neff, K. (2011). *Self-compassion: The proven power of being kind to yourself.* William Morrow.

Nelson, B., & Kaminsky, D. B. (2020). COVID-19's crushing mental health toll on health care workers. *Cancer Cytopathology, 128*(9), 597–598. https://doi.org/10.1002/cncy.22347

Norman, S., & Maguen, S. (2021). *Moral injury*. National Centre for PTSD. https://www.ptsd.va.gov/professional/treat/cooccurring/moral_injury.asp

North, C. S., Surís, A. M., Smith, R. P., & King, R. V. (2016). The evolution of PTSD criteria across editions of DSM. *Annals of Clinical Psychiatry, 28*(3), 197–208. https://www.researchgate.net/publication/305985918_The_evolution_of_PTSD_criteria_across_editions_of_DSM

Pain, C., & Lanius, R. (2020). Disasters, pandemics and mental health. *Canadian Medical Association Journal, 192*(28), E803–E803. https://doi.org/10.1503/cmaj.200736

Papazoglou, K., & Chopko, B. (2017). The role of moral suffering (moral distress and moral injury) in police compassion fatigue and PTSD: An unexplored topic. *Frontiers in Psychology, 8*(1999). https://doi.org/10.3389/fpsyg.2017.01999

Parker, J. (2019, June 9). *Moral injury and burnout are not the same.* theBMJOpinion https://blogs.bmj.com/bmj/2019/06/06/joshua-parker-moral-injury-and-burnout-are-not-the-same/

Phoenix Australia—Centre for Posttraumatic Mental Health & Canadian Centre for Excellence—PTSD. (2020). *Moral stress amongst healthcare workers during the COIVD-19 pandemic.* https://www.moralinjuryguide.ca/wp-content/uploads/2020/07/Moral-Injury-Guide.pdf

Protopopescu, A., Boyd, J., O'Connor, C., Rhind, S., Jetly, R., Lanius, R., & Mckinnon, M. (2020). Moral injury in Canadian military members and veterans: Implications for

military and healthcare sector response during the COVID-19 pandemic. *Journal of Military, Veteran and Family Health*. https://doi.org/10.3138/jmvfh-CO19-008

Premji, S., & Etowa, J. B. (2014). Workforce utilization of visible and linguistic minorities in Canadian nursing. *Journal of Nursing Management, 22*(1), 80–88. https://doi.org/10.1111/j.1365-2834.2012.01442.x.

Purcell, N., Griffin, B. J., Burkman, K., & Maguen, S. (2018). "Opening a door to a new life": The role of forgiveness in healing from moral injury. *Frontiers in Psychiatry, 9*, 1–7. https://doi.org/10.3389/fpsyt.2018.00498

Qureshi, I., Garcia, R., Ali, N., & Randhawa, G. (2021). Understanding the disproportionate effects of COVID-19 on nurses from ethnic minority backgrounds. *Nursing Standard, 36*(9), 29–34. https://doi.org/10.7748/ns.2021.e11645

Rashid, S., Reeder, C., Sahu, S., & Rashid, S. (2021). Psychological distress and moral injury to oncologists and their patients during COVID-19 pandemic. *Current Psychology*, 1–6. https://doi.org/10.1007/s12144-021-02128-1

Resick, P. A., Wachen, J. S., Dondanville, K. A., Pruiksma, K. E., Yarvis, J. S., Peterson, A. L., Mintz, J., the STRONG STAR Consortium, Borah, E. V., Brundige, A., Hembree, E. A., Litz, B. T., Roache, J. D., & Young-McCaughan, S. (2017). Effect of group vs individual cognitive processing therapy in active-duty military seeking treatment for posttraumatic stress disorder: A randomized clinical trial. *JAMA Psychiatry, 74*(1), 28–36. https://doi.org/10.1001/jamapsychiatry.2016.2729

Richardson, J. D., Lounsbury, J. W., Bhaskar, T., Gibson, L. W., & Drost, A. W. (2009). Personality traits and career satisfaction of health care professionals. *The Health Care Manager, 28*(3), 218–226. https://doi.org/10.1097/HCM.0b013e3181b3e9c7

Rieger, S. (2021, Sept 04). Alberta to bring in out-of-province contract nurses and COVID-19 patients fill hospitals. *CBC News*. https://www.cbc.ca/news/canada/calgary/alberta-contract-nurses-covid-hospitals-1.6165226

Robertson, L. (2021, April 17). 'We never ran from it.' COVID-19 left emotional scars on Florida's health care heroes. *The Miami Herald.* https://www.heraldmailmedia.com/story/news/2021/04/17/we-never-ran-from-it-covid-19-left-emotional-scars-on-floridas-health-care-heroes/43719891/

Rock, D., & Grant, H. (2016, November 4). *Why diverse teams are smarter.* Diversity. https://www.agileleanhouse.com/lib/lib/Topics/Teams/Why%20Diverse%20Teams%20Are%20Smarter.pdf

Rock, D., Grant H., & Grey, J. (2016, September 22). *Diverse teams feel less comfortable—and that's why they perform better*. Harvard Business Review. https://purplebeach.com/wp-content/uploads/2020/01/HBR_diverseteamsfeellesscomfortable-2.pdf

Rowlands, S. L. (2021). Understanding and mitigating moral injury in nurses. *Nursing Standard*, *36*(9). Advance online publication. https://doi.org/10.7748/ns.2021.e11703

Roycroft, M., Wilkes, D., Pattani, S., Fleming, S. & Olsson-Brown, A. (2020). Limiting moral injury in healthcare professionals during the COVID-19 pandemic. *Occupational Medicine 70*(5), 312–314. https://doi.org/10.1093/occmed/kqaa087

Rushton, C. H., Turner, K., Brock, R. N., & Braxton, J. M. (2021). Invisible moral wounds of the COVID-19 pandemic: Are we experiencing moral injury? *AACN Advanced Critical Care, 32*(1), 119–125. https://doi.org/10.4037/aacnacc2021686

Shay, J. (2014). Moral injury. *Psychoanalytic Psychology, 31*(2), 182–191. https://doi.org/10.1037/a0036090

Shortland, N., McGarry, P., & Merizalde, J. (2020). Moral medical decision-making: Colliding sacred values in response to COVID-19 pandemic. *Psychological Trauma: Theory, Research, Practice & Policy, 12*, S128–S130. https://doi.org/10.1037/tra0000612

Siddiqi, H. (2020). To suffer alone: Hospital visitation policies during COVID-19. *Journal of Hospital Medicine, 11*, 694–695. https://doi.org/10.12788/jhm.3494

Sirois, F. M., & Owens, J. (2021). Factors associated with psychological distress in health-care workers during an infectious disease outbreak: A rapid systematic review of the evidence. *Frontiers in Psychiatry, 11*, 1–35. https://doi.org/10.3389/fpsyt.2020.589545

Smith, A. (2021, September 9). 'Boiling point': Alberta doctors warn of health system collapse as COVID cases climb. *CBC News.* https://www.cbc.ca/news/canada/calgary/alberta-doctors-health-care-collapse-covid-1.6169269

Smith, E. R., Duax, J. M., & Rauch, S. A. M. (2013). Perceived perpetration during traumatic events: Clinical suggestions from experts in prolonged exposure therapy. *Cognitive and Behavioural Practice, 20*(4), 461–470. https://doi.org/10.1016/j.cbpra.2012.12.002

Snowdon, Wallis. (2021, September 17). Life and death: What critical-care triage could mean in Alberta's ICUs. *CBC News.* https://www.cbc.ca/news/canada/edmonton/emergency-covid-triage-alberta-1.6178253

Søvold, L. E., Naslund, J. A., Kousoulis, A. A., Saxena, S., Qoronfleh, M. W., Grobler, C., & Münter, L. (2021). Prioritizing the mental health and well-being of healthcare workers: An urgent global public health priority. *Front Public Health, 9*, 1–12. https://doi.org/10.3389/fpubh.2021.679397

Stelnicki, A. M., Carleton, R. N., & Reichert, C. (2020a). Nurses' mental health and well-being: COVID-19 impacts. *Canadian Journal of Nursing Research, 52*(3), 2371–239. https://doi.org/10.1177/0844562120931623

Stelnicki, A. M., Jamshidi, L., Angehrn, A., & Carleton, R. N. (2020b). Suicidal behaviours among nurses in Canada. *Canadian Journal of Nursing Research, 52*(3), 226–236. https://doi.org/10.1177/0844562120934237

Sun, D., Phillips, R. D., Mulready, H. L., Zablonski, S. T., Turner, J. A., Turner, M. D., McClymond, K., Nieuwsma, J. A., & Morey, R. A. (2019). Resting-state brain fluctuation and functional connectivity dissociate moral injury from posttraumatic stress disorder. *Depression and Anxiety, 36*(5), 442–452. https://doi.org/10.1002/da.22883

Tallis, R. (May 27, 2013). Philosophy isn't dead yet. *The Guardian.* https://www.theguardian.com/commentisfree/2013/may/27/physics-philosophy-quantum-relativity-einstein

Termuehlen, G. (2021). Artist's statement: Moral injury. *Academic Medicine, 96*(9), 1262. https://doi.org/10.1097/ACM.00000000000042

The Canadian Press. (2021, September 29). 'State of crisis': Canadian Medical Association calls for lockdowns in Alberta and Saskatchewan. *CBC News.* https://www.cbc.ca/news/canada/edmonton/alberta-saskatchewan-lockdowns-cma-1.6193631

The Forgiveness Project. (2021). https://www.theforgivenessproject.com/

Thomaier, L., Teoh, D., Jewett, P., Beckwith, H., Parsons, H., Yuan, J., Blaes, A. H., Lou, E., Hui, J. Y. C., & Vogel, R. I. (2020). Emotional health concerns of oncology physicians in

the United States: Fallout during the COVID-19 pandemic. *PloS One, 15*(11), 1–10. https://doi.org/10.1371/journal.pone.0242767

Truscott, D., & Crook, K. H. (2013). *Ethics for the practice of psychology in Canada*. The University of Alberta Press.

Usset, T. J., Gray, E., Griffin, B. J., Currier, J. M., Kopacz, M. S., Wilhelm, J. H., & Harris, J. I. (2020). Psychospiritual developmental risk factors for moral injury. *Religions, 11*(484), 1–11. https://doi.org/10.3390/rel11100484

Vieten, C., Scammell, S., Pilato, R., Ammondson, I., Pargament, K. I., & Lukoff, D. (2013). Spiritual and religious competencies for psychologists. *Psychology of Religion and Spirituality, 5*(3), 129–144. https://doi.org/10.1037/a0032699

Wachen, J. S., Dondanville, K. A., & Resick, P. A. (2017). Correcting misperceptions about cognitive processing therapy to treat moral injury: A response to Gray and colleagues. *Cognitive and Behavioral Practice, 24*(4), 388–392. https://doi.org/10.1016/j.cbpra.2017.06.001

Wade, N. R. (2016). Integrating cognitive processing therapy and spirituality for the treatment of post-traumatic stress disorder in the military. *Social Work & Christianity, 43*(3), 59–72

Walji, M. (2015). Diversity in medical education: Data drought and socioeconomic barriers. *Canadian Medical Association Journal, 187*(1), 11. https://doi.org/10.1503/cmaj.141502

Wallis, S. (2021, September 17). Life and death: What critical-care triage could mean in Alberta ICUs. *CBC News*. https://www.cbc.ca/news/canada/edmonton/emergency-covid-triage-alberta-1.6178253

Walsh, B. (2020, March 25). COVID-19: The history of pandemics. *BBC*. https://www.bbc.com/future/article/20200325-covid-19-the-history-of-pandemics

Walton, M., Murray, E., & Christian, M. D. (2020). Mental health care for medical staff and affiliated healthcare workers during the COVID-19 pandemic. *European Heath Journal: Acute Cardiovascular Care, 9*(3), 241–247. https://doi.org/10.1177/2048872620922795

Wang, Z., Koenig, H. G., Tong, Y., Wen, J., Sui, M., Liu, H., Zaben, F. A., & Liu, G. (2020) Moral injury in Chinese health professionals during the COVID-19 pandemic. P*sychological Trauma: Theory, Research, Practice, and Policy.* Advance online publication. https://doi.org/10.1037/tra0001026

Williams, R. D., Brundage, J. A., & Williams, E. B. (2020). Moral injury in times of COVID-19. *Journal of health service psychology*, 1–5. Advance online publication. https://doi.org/10.1007/s42843-020-00011-4

Williamson, V., Murphy, D., & Greenberg, N. (2020). COVID-19 and experiences of moral injury in front-line key workers. *Occupational Medicine, 70*, 317–319. https://doi.org/10.1093/occmed/kqaa052

Wounded Warriors Canada. (2021). *Before operational stress (BOS).* https://woundedwarriors.ca/our-programs/before-operational-stress/

World Health Organization [WHO]. (2019). *The ICD-10 classification of mental and behavioural disorders (11th ed.).* https://icd.who.int/en

Yan, G. W. (2016). The invisible wound: Moral injury and its impact on the health of operation enduring freedom/operation Iraqi freedom veterans. *Military Medicine, 181*(5), 451–458. https://doi.org/10.7205/MILMED-D-15-00103

Yeterian, J. D., Berke, D., & Litz, B. T. (2017). Psychosocial rehabilitation after war trauma with adaptive disclosure: Design and rationale of a comparative efficacy trial. *Contemporary Clinical Trials, 61*, 10–15. https://doi.org/10.1016/j.cct.2017.07.012

Zhizhong, W., Koenig, H. G., Yan, T., Jing, W., Mu, S., Hongyu, L., & Guangtian, L. (2020). Psychometric properties of the moral injury symptom scale among Chinese health professionals during the COVID-19 pandemic. *BMC Psychiatry, 20*(1), 556–556. https://doi.org/10.1186/s12888-020-02954-w

Zurcher, S. J., Kerksieck, P., Adamus, C., Burr, C. M., Lehmann, A. I., Huber, F. K., & Richter, D. (2020). Prevalence of mental health problems during virus epidemics in the general public, health care workers and survivors: A rapid review of the evidence. *Frontiers in Public Health, 8*, 1–15. https://doi.org/10.3389/fpubh.2020.560389

Appendix

Moral Injury Symptoms Scale—Health Professionals' Version (MISS-HP) (Sample)

*The following questions **may be difficult**, but they are common experiences of busy healthcare professionals*. They concern your experiences on your job as a health professional and **how you are feeling now**. Try to answer every question. Circle a single number between 1 (strongly disagree) and 10 (strongly agree) to indicate how much you personally agree or disagree with each statement.

1. **I feel betrayed by other health professionals whom I once trusted.**

1 2 3 4 5 6 7 8 9 10

Strongly disagree Mildly disagree Neutral Mildly agree Strongly agree

2. **I feel guilt over failing to save someone from being seriously injured or dying.**

1 2 3 4 5 6 7 8 9 10

Strongly disagree Mildly disagree Neutral Mildly agree Strongly agree

3. **I feel ashamed about what I've done or not done when providing care to my patients.**

1 2 3 4 5 6 7 8 9 10

Strongly disagree Mildly disagree Neutral Mildly agree Strongly agree

4. **I am troubled by having acted in ways that violated my own morals or values.**

1 2 3 4 5 6 7 8 9 10

Strongly disagree Mildly disagree Neutral Mildly agree Strongly agree

5. **Most people with whom I work as a health professional are trustworthy.**

1 2 3 4 5 6 7 8 9 10

Strongly disagree Mildly disagree Neutral Mildly agree Strongly agree

6. **I have a good sense of what makes my life meaningful as a health professional.**

1 2 3 4 5 6 7 8 9 10

Strongly disagree Mildly disagree Neutral Mildly agree Strongly agree

7. **I have forgiven myself for what's happened to me or to others whom I have cared for.**

1 2 3 4 5 6 7 8 9 10

Strongly disagree Mildly disagree Neutral Mildly agree Strongly agree

8. **All in all, I am inclined to feel that I'm a failure in my work as a health professional.**

1 2 3 4 5 6 7 8 9 10

Strongly disagree Mildly disagree Neutral Mildly agree Strongly agree

9. **I sometimes feel God is punishing me for what I've done or not done while caring for patients.**

1 2 3 4 5 6 7 8 9 10

Strongly disagree Mildly disagree Neutral Mildly agree Strongly agree

10. **Compared to before I went through these experiences, my religious/spiritual faith has strengthened.**

1 2 3 4 5 6 7 8 9 10

Strongly disagree Mildly disagree Neutral Mildly agree Strongly agree

11. Do the feelings you indicated above cause you significant distress or impair your ability to function in relationships, at work, or other areas of life important to you? In other words, if you indicated any problems above, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

□ Not at all □ Mild □ Moderate □ Very much □ Extremely