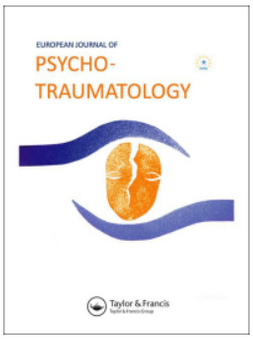

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BASIC RESEARCH ARTICLE

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An expert-driven consensus framework for the study of potentially morally injurious events and their impacts: findings from an e-Delphi study

Stephanie A. Houle [a,b,c], Michelle Birch [b], Dominic Murphy [d,e], Neil Greenberg [e], Anthony Nazarov [b,f,g] and J. Don Richardson [b,g]

[a]Veterans Affairs Canada, Charlottetown, PE, Canada; [b]MacDonald Franklin Operational Stress Injury Research Centre, Lawson Research Institute, London, ON, Canada; [c]University of Ottawa Institute of Mental Health Research at the Royal, Ottawa, ON, Canada; [d]Combat Stress Centre for Applied Military Health Research, Surrey, UK; [e]King's Centre for Military Health Research, King's College London, London, UK; [f]Department of Psychiatry and Behavioral Neurosciences, McMaster University, Hamilton, ON, Canada; [g]Department of Psychiatry, Schulich School of Medicine & Dentistry, Western University, Parkwood Institute, London, ON, Canada

ABSTRACT

Background: Moral injury (MI) refers to the profound psychosocial, spiritual and behavioural impacts of exposure to potentially morally injurious events (PMIEs). Despite growing recognition of MI across military and civilian contexts, definitional clarity surrounding PMIEs remains limited.

Objective: This study applied e-Delphi methodology to generate consensus on the defining features of PMIEs and their impacts among an interdisciplinary panel of MI experts.

Method: The panel first provided narrative responses to open-ended questions on defining PMIEs. These were refined into 63 Likert statements. Experts rated agreement on these and completed card-sort and ranking exercises.

Results: Statements addressed eight themes: exposure, transgressive acts, consequences of PMIEs, trauma vs. PMIEs, moral agency, betrayal, subjectivity, and high-stakes. Consensus (≥80% agreement) was reached for 55% of all statements. Consensus for card-sort and ranking exercises was also observed, pertaining to etiological mechanisms of MI, and risk and protective factors. Themes with the highest levels of consensus included exposure and transgressive acts, while moderate consensus was achieved on PMIE consequences and comparisons to trauma. Lower consensus emerged around moral agency, betrayal, high-stakes and subjectivity, substantiating these as areas of ongoing debate.

Conclusions: This study clarifies key definitional features of PMIEs and their impacts, with findings organised into a consensus framework for the future study of PMIEs. Findings highlight the need for empirical testing of proposed features and areas of debate, integration with emerging trauma frameworks, and culturally inclusive approaches.

Antecedentes: El daño moral (DM) se refiere a los profundos impactos psicosociales, espirituales y conductuales de la exposición a eventos potencialmente dañinos para la moral (PMIEs por sus siglas en ingles). A pesar del reconocimiento creciente del DM en los contextos militares y civiles, la claridad en la definición de PMIEs todavía es limitada.

Objetivo: Este estudio aplicó la metodología e-Delphi para generar consenso sobre las características definitorias de los PMIEs y sus impactos entre un panel interdisciplinario de expertos en DM.

Método: El panel primero proporcionó respuestas narrativas a preguntas abiertas sobre la definición de los PMIEs. Estas se refinaron en 63 afirmaciones tipo Likert. Los expertos evaluaron el grado de acuerdo sobre estos y completaron ejercicios de clasificación y categorización de tarjetas.

Resultados: Las declaraciones abordaron ocho temas: exposición, actos transgresores, consecuencias de los PMIEs, trauma vs. PMIEs, agencia moral, traición, subjetividad y situaciones de alto riesgo. Se alcanzó consenso (≥80% de acuerdo) en el 55% de todas las declaraciones. También se observó consenso en los ejercicios de clasificación y categorización, en relación con los mecanismos etiológicos del DM y factores de riesgo y protectores. Los temas de mayor consenso fueron la exposición y los actos transgresores, mientras que se alcanzó un consenso moderado sobre las consecuencias de los PMIEs y las comparaciones con el trauma. Se observó un menor consenso en torno a la agencia moral, traición, situaciones de alto riesgo y subjetividad, lo que las convierte en áreas de debate continuo.

Conclusiones: Este estudio aclara las características definitorias clave de los PMIEs y sus impactos, organizando los hallazgos en un marco consensuado para estudios futuros en PMIEs. Los hallazgos destacan la necesidad de evaluar empíricamente las características propuestas y las áreas de debate, integrarlas con los marcos emergentes sobre trauma y aplicar enfoques culturalmente inclusivos.

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KEYWORDS

Potentially morally injurious events; moral injury; Delphi method; traumatic stress; trauma; PTSD; betrayal; transgressive acts; mental health

PALABRAS CLAVE

Eventos potencialmente lesivos para la moral; daño moral; método Delphi; estrés traumático; Trauma; TEPT; traición; actos transgresores; salud mental

HIGHLIGHTS

- Potentially morally injurious events (PMIEs) involve acts of commission or omission, enacted by oneself or others, and may be single, chronic, or cumulative.
- PMIEs are distinguished from traumatic events by the appraisal of a moral transgression, whether immediate or delayed; while traumatic events can be morally injurious, this is not a condition for defining a PMIE.
- Key debates in defining PMIEs concern the role of betrayal, subjectivity, contextual factors, and blame, as well as severity and thresholds for functional impairment.

CONTACT J. Don Richardson don.richardson@sjhc.london.on.ca Department of Psychiatry, Schulich School of Medicine & Dentistry, Western University, Parkwood Institute, Mental Health Care Building, F4-430, London, N6C 0A7 ON, Canada

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1. Introduction

The last decade has seen a surge in research and clinical interest in moral injury (MI), a term emerging primarily from the military mental health field describing the psychological, social, behavioural, and spiritual consequences of events that deeply transgress a person's moral beliefs and values (Litz et al., 2009). While debate continues as to the defining features of MI, domains of impact include disruptions in moral thinking, interpersonal relatedness, meaning and purpose, and painful moral emotions (Griffin et al., 2019; Litz et al, 2022). Research to date has demonstrated associations between exposure to potentially morally injurious experiences (PMIEs) and such deleterious outcomes as depression, posttraumatic stress, and suicidality (Griffin et al., 2019; Hall et al., 2021; Nazarov et al., 2018). Though still maturing, and whilst not a formal diagnosis, MI is widely accepted as a mental health construct worthy of prevention and intervention efforts (Litz et al., 2009; Phelps et al., 2022; Williamson et al., 2021; Vermetten et al., 2023).

Examples of experiences hypothesised to prompt MI include combat events such as killing and making decisions that harmed others, as well as witnessing atrocities, betrayal by leaders, and witnessing or experiencing harm due to others' actions (Litz et al., 2009; 2025; Maguen et al., 2022; Shay, 2014; Purcell et al., 2018). MI has also been shown to be prevalent among war-exposed civilians (Zasiekina et al., 2023). Events outside of armed conflict, such as military sexual assault, have also been purported to prompt MI (Frankfurt et al., 2018). Qualitative studies have also suggested that experiences involving misuse of government resources, animal cruelty, racism, and witnessing morally abhorrent practices such as child sexual abuse may be perceived as morally injurious by military members and Veterans (King et al., 2023). PMIEs are also increasingly being identified in professions outside the military. Examples include institutional betrayal among healthcare workers during the COVID-19 pandemic (e.g. responding with a lack of resources to suffering patients); high-stakes ethical dilemmas faced by journalists covering terrorist attacks (e.g. choosing between helping and reporting); veterinarians encountering ethical challenges (e.g. performing euthanasia for reasons they disagreed with); first responders such as police officers, paramedics, and firefighters (e.g. unable to save individuals during a crisis despite best efforts); educators witnessing harm done to students; and social workers engaging in actions they believe caused harm (e.g. removal of a child from mother's care; Griffin et al., 2019; King et al., 2023; Brennan & Cole, 2024; Haight et al., 2017; Nazarov et al., 2024; Williamson et al., 2018; Backholm & Idås, 2015). In these populations, such events have also demonstrated associations with outcomes such as depression, posttraumatic stress disorder (PTSD), suicidality, anxiety and burnout (Nazarov et al., 2024; Williamson et al., 2018; Backholm & Idås, 2015).

Importantly, our understanding of PMIEs and their impacts remains clouded by reliance on retrospective analysis of rare, high-stakes events (e.g. combat), subjective endorsement of vague indicator statements (e.g. 'I was betrayed'), and untested assumptions about the types of appraisals needed for an event to be experienced as morally transgressive (Litz & Walker, 2025; Eastbrook et al., 2021; O'Brien et al., 2024; Litz & Kerig, 2019). Further, most research on PMIEs has been conducted in occupational stress settings, with little examination of PMIEs in the general population, thereby limiting generalizability. Measurement of PMIE exposure has also been criticised for conflating exposure and outcomes (Richardson et al., 2020; Houle et al., 2024), and while PMIEs have been theorised to represent low-frequency, high-impact events occurring at the extreme end of a continuum of moral stressors (Litz & Kerig, 2019), no empirical research has yet been conducted to clarify which features of PMIEs are truly most representative of this extreme. A recent systematic review of definitions of military MI found that of 12 existing definitions, only two were empirically derived, and done so using qualitative methods (Richardson et al., 2020). To our knowledge, only one study to date has taken a systematic approach to improving definitional clarity surrounding PMIEs (Webb et al., 2025), however, this study was restricted to mental health workers in forensic environments, limiting generalizability. Moreover, results from this study describe broad features (e.g. 'PMIEs occur in the context of wider structural and systemic issues'), which are unlikely to support definitional clarity needed for research advancements in this area.

While MI is related to moral distress – a nursing and health care construct discussed since the mid-80s – issues regarding definitional clarity are far from being resolved. Morley and colleagues (2019) point out that an important challenge in defining moral distress is that the construct tends to be defined by the circumstances which give rise to it (i.e. it arises when a moral judgement is made and external factors constrain actions that would otherwise resolve a potential violation). Lack of clarity regarding definitional terms themselves (e.g. judgement, constraint) adds to the ambiguity surrounding what may otherwise be understood as the 'necessary and sufficient conditions' by which moral distress is defined (Morley et al., 2019). Litz (2025), writing from a clinical perspective, highlights similar gaps in clarity for MI, stating that 'without a theory-driven,

operationalized, empirically validated, and separable construct, the boundaries of MI as a clinical problem, and the conditions under which it arises, remain fluid.' Additional points of contention have been raised by scholars and practitioners from spiritual care and other disciplines, warning that MI has been 'colonized' by the field of psychology, and suggesting that MI is not an individual but a collective problem, and underscoring the potential harms of ignoring the broader social-political context of MI (Antal et al., 2024; Frame, 2018).

The lack of definitional boundaries surrounding PMIEs and MI leaves open the question of how best to direct research attention and resources to substantiate the defining components and assumptions of MI, and of PMIEs in particular. A commonly employed consensus-building method in such situations is the Delphi method, a structured process designed to aggregate expert perspectives on complex topics through a series of rounds with controlled feedback (Belton et al., 2019; Niederberger & Spranger, 2020). Its iterative nature and ability to integrate diverse expertise make it valuable in contexts where experimental or evidence-based research is constrained by ethical or practical challenges (Niederberger & Spranger, 2020; Chalmers & Armour, 2018). The study of PMIEs and their impacts, marked by conceptual ambiguity, varied definitions, and limited empirical frameworks for their operationalisation, is well suited to benefit from this approach. In this study, we employ Delphi methodology with two main objectives: (1) to identify the most agreed-upon features of PMIEs and their impacts from an interdisciplinary panel of experts, and (2) to identify priority directions for future research on PMIEs and their impacts.

2. Method

Following guidelines proposed by Belton and colleagues (2019), we used an e-Delphi approach combining qualitative and quantitative components (Figure 1). This study was approved by the Research Ethics Boards at Western University (WREM #126805) and Lawson Research Institute (ReDA #13734).

2.1. Expert panel

Experts are those with specialised knowledge and experience in the field of interest (Chalmers & Armour, 2018). We aimed to establish a heterogeneous panel of experts with interdisciplinary expertise in conceptualising, studying, and addressing MI in practice (i.e. social workers, chaplains, psychotherapists, psychiatrists, psychologists, nurses, philosophers and academics), as well as those with lived experience. Great variability exists in sample sizes for Delphi studies (i.e. 10 to >1000; median range = 17–40) (Belton et al., 2019; Niederberger & Spranger, 2020). Thus, we aimed to invite over 50 experts, considering the potential for non-response and attrition and that samples as small as 5–10 experts may be adequate for heterogenous samples (Belton et al., 2019). A total of 57 experts were invited to participate in the study via e-mail. We identified potential participants by first through compiling a list of experts known to the authors, as well as through word of mouth within our professional networks ($n = 41$). We then conducted an interdisciplinary search for authors with relevant and impactful research or theoretical contributions ($n = 14$). Experts recruited were also given the opportunity to nominate additional experts in their network ($n = 2$). Most interdisciplinary experts invited to participate were identified based on academic contributions and/or practical expertise (e.g. research and theoretical publications, books, conference presentations and clinical workshops, scientist-practitioners). Disciplines represented by experts invited include clinical psychology, psychiatry, neuropsychology, philosophy and ethics, spiritual care, anthropology, and social work. We targeted lived experience expertise through our professional networks, though additional experts self-identified as lived experience experts during the study. Those invited were informed that the study aimed to build consensus around the defining features of PMIEs and their impacts.

2.2. Consensus

Consensus is defined as the proportion of responses within a predetermined range (Chalmers & Armour, 2018). The level of consensus may be unique to each Delphi study, differing depending on the project objective, study design, and sample, and may range anywhere from 51% to 100% (Chalmers & Armour, 2018), with higher thresholds generally conferring greater validity (Belton et al., 2019). A common benchmark in Delphi studies is 70-80% threshold for agreement (Chalmers & Armour, 2018). Given our panel's heterogeneity and ongoing lack of clarity in the area of MI, we set a conservative a priori consensus criterion of $\geq 80\%$ agreement. For card-sort questions (CSQs; see below), frequencies were calculated for statements sorted into a particular category ('central' or 'not central;' 'risk' or 'protective' factor) such that those categorised by a least 80% of panel members were considered to have reached consensus. For Likert statements, consensus was defined as 80% of respondents rating a statement above the neutral point. When consensus was not achieved, we reviewed qualitative comments provided by experts, summarised key points for consideration by the panel, and recirculated revised statements in the next round. If dissensus persisted, we examined

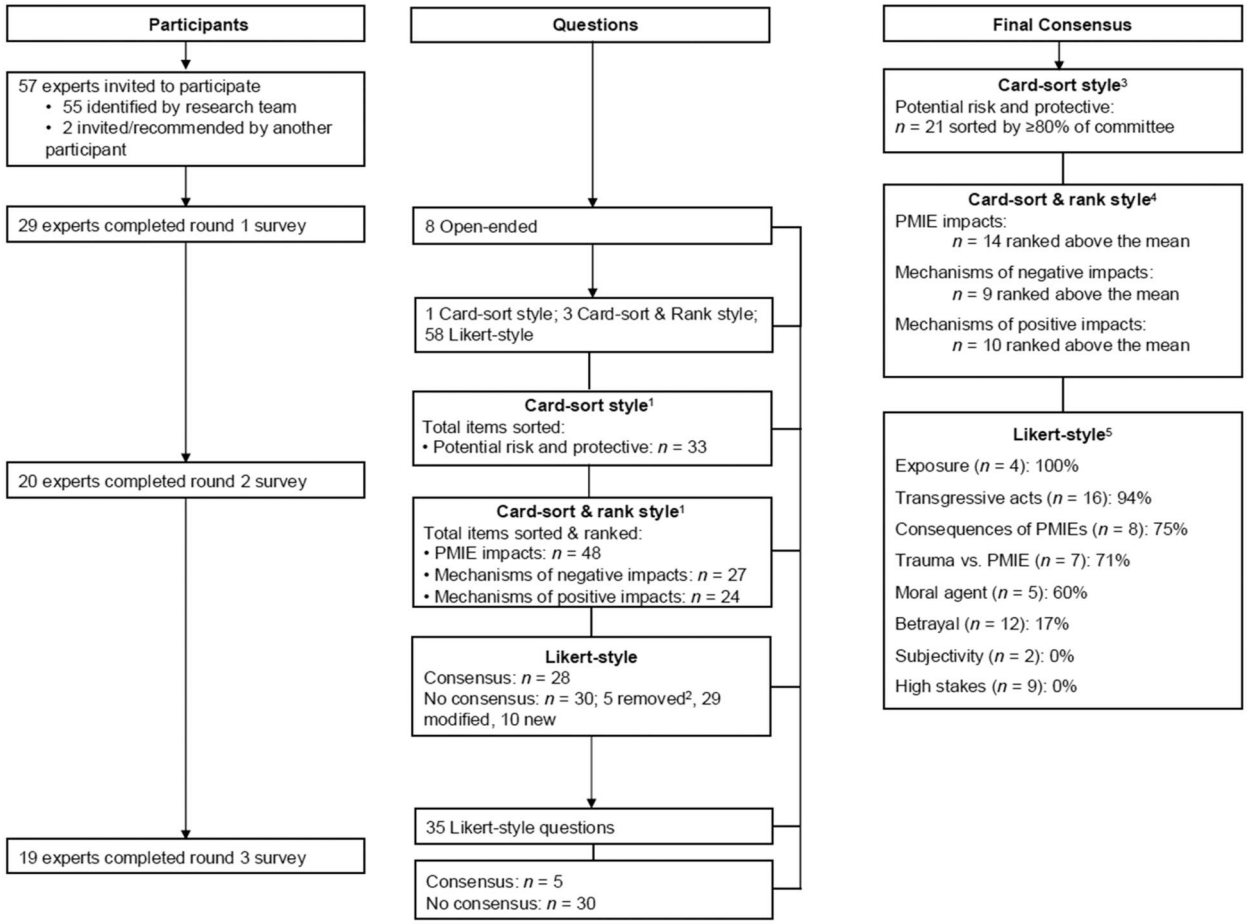

Figure 1. Overview of e-Delphi Method. Note: *n* = number of statements. PMIE = Potentially Morally Injurious Events. [1]Presented in round 2 only. [2]Four round two statements were merged to create two statements in round three, one round two statement was removed due to falling outside of the research scope. [3]Consensus for card-sort style determined by 80% or more participants sorting an item as either risk or protective factor**.** [4]Weighted ranking was used as a proxy for consensus for card-sort and rank questions, items ranked above the weighted rank mean were considered to have reached agreement. [5]Consensus for Likert-style defined a priori as 80% or more of participants rated their agreement to a statement above the neutral point, this shows the percentage of statements that reached consensus by theme.

qualitative feedback, and reported dissensus in the results. This method is recommended to remain sensitive to the panel's time commitment and the potential for attrition across rounds (Belton et al., 2019).

2.3. Data collection and analysis

Study progression is summarised in Figure 1.

2.3.1. Round 1 data collection & analysis

Participants received a link to an online survey hosted on Lawson REDCap, where they completed a demographic questionnaire assessing gender, country of residence, area of expertise, employment setting, and extent of knowledge or experience in MI and trauma. Participants then answered a series of open-ended questions in narrative format (see Supplemental File 1). Questions were developed by the authors, drawing from our own expertise as well as a literature review and external expert input.

Qualitative data was organised by question and uploaded into NVivo (QSR International, 2017). Authors S.A.H. and M.B. developed the initial codes using a combination of content and thematic analysis (Braun & Clarke, 2006), focusing on identifying recurring themes and frequency of content fitting those themes across participants. S.A.H. and M.B then independently coded each expert's anonymised file, holding regular meetings to compare coding for consistency, reliability, comprehensiveness and representativeness. This analysis served as the basis for the Round 2 survey.

2.3.2. Round 2 data collection & analysis

In Round 2, experts received a personalised link to an online survey hosted on Western University Qualtrics, which included 58 Likert statements, four card-sort questions (CSQs) and three ranking questions. For Likert items, experts rated statements on a 7-point scale from *strongly disagree* to *strongly agree*. For CSQs, participants used a drag-and-drop feature to sort items into categories based on their relevance to PMIE constructs. Lists of items representing PMIE

impacts (CSQ1), potential processes and mechanisms responsible for negative and positive consequences after PMIEs (CSQs 2&3) were sorted by participants as 'central' or 'not central.' For potential risk and protective factors (CSQ4), a single list was provided and experts categorised items as either 'risk factor,' 'protective factor,' or 'not applicable.' For CSQs with 'central' or 'not central' categories, participants were subsequently prompted to rank the importance of items sorted as 'central' in defining MI. Experts were invited to elaborate on their position in open-ended format after each survey item.

Descriptive statistics were calculated for each Likert item. For CSQs, responses were analyzed by determining the frequency items were categorised as 'central', 'not central' or as 'risk' or 'protective' factors. For ranked items, a mean-weighted ranking calculation was used to demonstrate consensus based on the relative importance of the item, judged across experts (Supplementary File 2). Open-text feedback was organised by statement theme and analyzed by S.A.H. and M.B. to assess reasonings for consensus or dissensus. Card-sort and ranking questions were not presented again in Round 3.

2.3.3. Round 3 data collection & analysis

Round 3 began with a summary of discussion points from Round 2 qualitative feedback (Supplemental File 3), then presented statements that did not reach consensus in Round 2, plus additional statements developed from the panel's feedback.

Adapted statements were presented alongside the previous Round 2 statement and associated median and IQR, followed by an open-text box. Round 3 Likert responses and narrative feedback were analyzed in the same manner as Round 2.

2.3.4. Finalisation of results

Improvements in consensus for revised statements was notable, however after Round 3 consistent contradictions and nuances were evident in participants' feedback for items resistant to consensus. We determined that it was unlikely that subsequent rounds would improve consensus for these statements and ended data collection.

3. Results

3.1. Expert panel demographics

Experts ranged across disciplines, gender, and country (Table 1). Attrition was noted across rounds (Round 1 $n = 29$; Round 2 $n = 20$; Round 3 $n = 19$). Among those with clinical expertise, years of experience for those in the final sample ranged from 3 to 25 years ($M = 15.3$ years, $SD = 9.0$). For those with research expertise, experience ranged 5–20 years ($M = 13.8$ years, $SD = 7.6$).

Experts identifying as academics or researchers most commonly reported expertise in Psychology ($n = 11$), including Clinical ($n = 4$), Social ($n = 1$), and Counselling Psychology ($n = 1$). Psychiatry was the next most common ($n = 4$). Those in chaplaincy or spiritual advisory roles ($n = 2$) described experience in Veteran hospitals, medical centers, and faith-based non-profits. Lived experience was represented by Veterans with deployment experience, a Veteran family member ($n = 1$), and a civilian having experienced traumatic violence ($n = 1$).

Experts described extensive knowledge of MI and trauma, with many participants having over a decade of clinical experience treating PTSD and MI, particularly within military, Veteran, and first responder populations. The panel also included established researchers with 5–30 years of MI-focused work, many in academic leadership roles. Some participants drew on first-hand military experience to inform their research and clinical work.

3.1.1. Card-sort and rank items

Eighteen potential risk factors and three potential protective factors reached consensus (Table 2). Six of 48 PMIE impacts, and 13 items representing processes and mechanisms central to the development of negative (7 items) and positive impacts (6 items) were identified as central by $\geq 80\%$ of the committee (Table 3). Additionally, 14 items representing potential PMIE impacts, and 19 items representing processes and mechansisms central to the development of negative (9 items) and positive impacts (10 items)

Table 1. Participant demographics.

Demographic Characteristics	Round 1 ($N = 29$)	Round 2 ($N = 20$)	Round 3 ($N = 19$)
Gender			
Man	16 (55%)	10 (50%)	9 (47%)
Woman	13 (45%)	10 (50%)	10 (53%)
Country			
Canada	7 (24%)	5 (25%)	5 (26%)
United States	6 (21%)	3 (15%)	3 (16%)
United Kingdom	3 (14%)	3 (15%)	3 (16%)
Netherlands	2 (7%)	1 (5%)	1 (5%)
Australia	1 (3%)	–	–
No Response	9 (31%)	8 (40%)	7 (37%)
Discipline			
Academic	14 (48%)	8 (40%)	7 (37%)
Researcher	12 (41%)	8 (40%)	8 (42%)
Clinician	11 (38%)	2 (35%)	7 (37%)
Chaplain/Spiritual Advisory Role	3 (10%)	2 (10%)	2 (10%)
Lived Experience	4 (14%)	3 (15%)	3 (16%)
Other	1 (3%)	–	–
Setting			
Academic	20 (69%)	14 (70%)	13 (68%)
Clinical	10 (34%)	9 (45%)	9 (47%)
Government	6 (21%)	4 (20%)	4 (21%)
Social/Community	2 (7%)	1 (5%)	1 (5%)

Note: Experts were allowed to select one or more disciplines and settings.

were ranked above the mean after weighting was applied (Supplemental File 1).

3.1.2. Likert statements

Fifty-eight statements were developed for Round 2. Final statements ($n = 63$) include those that reached consensus in Round 2 and those presented in Round 3, covering the following themes: exposure, transgressive acts, consequences of PMIEs, trauma vs. PMIEs, moral agent, betrayal, subjectivity, and high-stakes. Overall,

Table 2. Potential risk and protective factors associated with the development of moral injury.

Item	*n*	Potential Risk Factor (%)	Potential Protective Factor (%)	Not Applicable (%)
Previous exposure to PMIEs	15	100	0	0
Lack of social support	15	100	0	0
Ineffective leadership by others during/ surrounding the PMIE	15	100	0	0
Rigid and/or punitive moral beliefs held before the PMIE	14	100	0	0
Exposure to death, dying, and/or severe maltreatment	14	100	0	0
Environments where there is time pressure to make decisions	14	100	0	0
Severity of the PMIE	15	93	0	7
Proximity to the suffering of others during the PMIE	15	93	0	7
Self-relevance of the PMIE (e.g. sense of identification with those harmed by the PMIE)	15	93	0	7
Occupations with a high level of responsibility (e.g. military, police, emergency services, health care)	15	93	0	7
Previous exposure to trauma	15	93	7	0
Rigid or singular sense of identity (e.g. I am a soldier)	15	93	7	0
Living in or exposure to environments affected by conflict/ violence	14	93	7	0
Pre-existing mental health difficulties	15	87	0	13
Pre-existing beliefs that one is infallible	15	87	0	13
Current life stress	15	87	7	7
History of adverse childhood experiences	15	87	7	7
Low self-esteem	15	80	0	20
Perceived positive organizational support	15	7	93	0
Broad/diverse repertoire of skills and resources for coping	15	7	93	0
Adequate access to social supports	15	0	100	0

Note: Only items with >80% consensus shown here. Items ranked by central or not central by >80% of experts are considered to have reached consensus. See Supplemental File 2 for all items sorted and their consensus ratings.

Table 3. Potentially morally injurious event impacts & mechanisms responsible for negative and positive impacts.

Item	*n*	Central (%)	Not Central (%)
Potentially Morally Injurious Event Impacts			
Moral pain*	18	100	0
Feelings of shame*	19	84	16
Feelings of guilt*	19	84	16
Disruptions in self-worth	18	83	17
Issues with trusting self	18	83	17
Lost sense of goodness of the self *	15	80	20
Sense of self as tainted or bad*	14	79	21
Disruptions in self-identity	17	76	24
Alterations in moral thinking*	17	76	24
Issues with trusting others	18	72	28
Lost sense of belonging*	17	71	29
Social isolation	17	29	71
Intrusive thoughts	14	29	71
Loss of faith	18	28	72
Cynicism	15	27	73
Self-sabotage behaviour	17	24	76
Substance use	16	19	81
Feelings of numbness	16	19	81
Self-harm behaviour	17	18	82
Suicidal thoughts and/or intentions	16	13	87
Anxiety	16	13	87
Desire for revenge	17	12	88
Physical/biological impacts	14	7	93
Posttraumatic stress disorder	16	6	94
Violence against others	16	6	94
Impacts on sleep	14	0	100
Dissociation	13	0	100
Mechanisms Responsible for Negative Impacts			
Unresolved moral pain*	15	100	0
Shattered moral assumptions about self, others, and the world*	16	94	6
Difficulties with meaning-making	13	92	8
Unresolved moral violation (i.e. event itself is unresolved)*	14	86	14
Lost sense of self *	14	86	14
The ongoing appraisal or judgement regarding the PMIE*	14	86	14
Shattered assumptions about the self, others and/or the world	16	81	19
Rumination	13	77	23
Difficulties with trust	14	71	29
Ineffective coping strategies	14	71	29
Neurological or biological dysregulation	13	15	85
Mechanisms Responsible for Positive Impacts			
Identification and acceptance of one's own personal limitations	15	100	0
Realistic expectations of self *	13	92	8
Self-compassion*	14	86	14
Flexibility towards one's worldview*	13	85	15
Identification of one's own capacity for goodness and growth*	12	83	17
Acceptance of the event*	15	80	20
Forgiveness of self	14	79	21
Compassion towards others	14	79	21
Activities that promote a sense of purpose	13	77	23
Sharing experiences with trusted others	15	73[a]	20[a]
Reconstruction of previously shattered assumptions	15	73[a]	20[a]
Cognitive, psychological and/or spiritual flexibility*	14	71	29
Identification of one's moral values and related moral direction/compass	14	71	29
Engagement in activities that promote belonging	14	71	29

Note: Only items with >70% consensus shown here. Items ranked by central or not central by >80% of experts are considered to have reached consensus. See Supplemental File 2 for all items sorted, consensus findings and weighted rank data. *Indicates this item was ranked above the mean after mean-weight ranking calculation was applied. [a]Seven percent of participants sorted this item as 'not applicable.'

Table 4. Summary of study statements and consensus ratings.

#	Statement	Agreement (*N*)	Median (IQR)	Consensus (%)
	Exposure Statements			
1	Exposure to PMIEs can occur in the following ways: Acutely, or as a single event.*	Disagree (0), Neutral (0), Agree (20)	7.00 (0.00)	100%
2	Exposure to PMIEs can occur in the following ways: Chronically (i.e. similar incidents experienced over time).*	Disagree (0), Neutral (0), Agree (20)	7.00 (0.25)	100%
3	Exposure to PMIEs can occur in the following ways: Cumulatively, (i.e. multiple incidents accumulated over time).*	Disagree (0), Neutral (0), Agree (20)	7.00 (1.00)	100%
4	Whether or not an event led to harm (i.e. actual harm having resulted from the event or series of events) it can be potentially morally injurious.*	Disagree (1), Neutral (2), Agree (15)	6.00 (1.75)	83%
	Transgressive Acts Statements			
5	For an event to be considered potentially morally injurious, it must be morally transgressive in nature.*	Disagree (1), Neutral (2), Agree (17)	7.00 (1.00)	85%
6	Types of transgressive acts include: Acts of commission.*	Disagree (0), Neutral (0), Agree (19)	7.00 (0.00)	100%
7	Types of transgressive acts include: Acts of omission.*	Disagree (0), Neutral (0), Agree (19)	7.00 (0.00)	100%
8	Types of transgressive acts include: Acts of betrayal.*	Disagree (2), Neutral (0), Agree (17)	7.00 (1.00)	90%
9	One's involvement in a transgressive act can occur in the following ways: Active involvement in an act of commission (i.e. a conscious, deliberate action done by oneself).*	Disagree (0), Neutral (0), Agree (20)	7.00 (0.25)	100%
10	One's involvement in a transgressive act can include passive involvement in an act of commission. A passive act of commission occurs when an individual contributes to a harmful outcome indirectly or unintentionally (e.g. making policy decisions with the intention to protect people, but which in reality is later understood to have caused harm).*	Disagree (0), Neutral (1), Agree (18)	6.00 (1.5)	95%
11	One's involvement in a transgressive act can occur in the following ways: Active involvement in an act of omission (i.e. deliberately not doing something).*	Disagree (0), Neutral (0), Agree (20)	7.00 (0.00)	100%
12	One's involvement in a transgressive act can occur in the following ways: Passive involvement in an act of omission (i.e. unintentionally not doing something, for example through oversight).*	Disagree (0), Neutral (1), Agree (19)	7.00 (1.00)	95%
13	One's involvement in a transgressive act can occur in the following ways: Witnessing a transgressive act by others.*	Disagree (0), Neutral (2), Agree (18)	7.00 (1.00)	90%
14	One's involvement in a transgressive act can occur in the following ways: Witnessing the aftermath of a transgressive act which caused direct harm (e.g. death, serious injury).*	Disagree (0), Neutral (3), Agree (17)	6.50 (1.00)	85%
15	One's involvement in a transgressive act can occur in the following ways: Being victimised or targeted by others' transgressive acts.*	Disagree (1), Neutral (1), Agree (18)	7.00 (1.00)	90%
16	A transgressive act is always interpersonal in nature, meaning that the act invokes a person's relationship with self, others, and important sources of social well-being (i.e. groups, institutions).	Disagree (2), Neutral (3), Agree (14)	5.00 (1.50)	74%
17	A transgressive act involves a clear violation of: Trust.*	Disagree (2), Neutral (1), Agree (17)	7.00 (1.00)	85%
18	A transgressive act involves a clear violation of: Expected standards of behaviour or social agreements.*	Disagree (0), Neutral (2), Agree (18)	6.00 (1.00)	90%
19	A transgressive act involves a clear violation of: Personal agency (e.g. being prevented from doing something perceived to be moral).*	Disagree (1), Neutral (1), Agree (17)	7.00 (1.00)	90%
20	A transgressive act involves a clear violation of: Other specific moral or value that is central to the individual (not mentioned above, e.g. honesty, duty, fairness).*	Disagree (0), Neutral (1), Agree (18)	7.00 (1.00)	95%
	Consequences of PMIEs Statements			
21	The consequences of PMIEs exist on a spectrum defined by degree of functional impairment.*	Disagree (1), Neutral (3), Agree (16)	6.00 (1.00)	80%
22	The consequences of PMIEs and their impacts include impaired interpersonal functioning (e.g. problems in relationships).*	Disagree (0), Neutral (2), Agree (18)	6.00 (1.00)	90%
23	The consequences of PMIEs and their impacts include impaired occupational functioning (e.g. problems at work or at school).*	Disagree (0), Neutral (4), Agree (16)	6.00 (1.00)	80%
24	In some cultures, the consequences of PMIEs and their impacts can include impaired spiritual functioning (e.g. problems reconciling one's spiritual beliefs, and relationship with transcendent beings or forces beyond the material world).*	Disagree (0), Neutral (1), Agree (18)	6.00 (1.50)	95%
25	The consequences of PMIEs and their impacts include cognitive dysfunction.	Disagree (3), Neutral (7), Agree (7)	4.00 (1.00)	41%
26	The consequences of PMIEs and their impacts include biological dysfunction.	Disagree (3), Neutral (7), Agree (7)	4.00 (1.00)	41%
27	The consequences of PMIEs and their impacts include clinically significant distress (i.e. degree of distress the individual finds bothersome and difficult to tolerate).*	Disagree (0), Neutral (3), Agree (16)	6.00 (2.00)	84%
28	The consequences of PMIEs and their impacts can, at times, manifest in the form of mental disorders.*	Disagree (1), Neutral (1), Agree (16)	6.00 (1.75)	89%
	Trauma vs. PMIEs Statements			
29	A traumatic event can be morally injurious.*	Disagree (0), Neutral (1), Agree (19)	7.00 (1.00)	95%
30	An event does not have to be traumatic for it to be morally injurious.*	Disagree (1), Neutral (1), Agree (18)	6.50 (1.00)	90%
31	When an event is morally injurious, it is most likely to evoke core responses associated with moral emotions, and threat to moral beliefs, integrity and trust.*	Disagree (1), Neutral (2), Agree (17)	6.00 (1.25)	85%
32	What makes a PMIE unique relative to a potentially traumatic event is the moral quality of the distress it evokes.	Disagree (3), Neutral (3), Agree (12)	5.50 (2.0)	67%
33	What makes a PMIE unique relative to a traumatic event is that an appraisal of a moral transgression is necessary.*	Disagree (1), Neutral (1), Agree (17)	6.00 (1.00)	90%

(*Continued*)

Table 4. Continued.

#	Statement	Agreement (*N*)	Median (IQR)	Consensus (%)
34	PMIEs represent the extreme end of a spectrum of morally transgressive events that have the potential to be more intense and disruptive than other more typical events (e.g. getting cut off in traffic, telling a white lie).	Disagree (1), Neutral (3), Agree (14)	6.00 (2.00)	78%
35	Appraising an event or series of events as potentially morally injurious can occur immediately (e.g. during or immediately following the event) or be delayed (i.e. be appraised as such once some time has passed).*	Disagree (0), Neutral (1), Agree (17)	6.00 (0)	94%
	Moral Agent Statements			
36	For an event to be transgressive, a moral agent must be identified. In this case, moral agent refers to a particular moral actor (present or not) in the form of an individual, group, or entity (e.g. an institution, a deity) whose actions or inaction are morally transgressive.	Disagree (2), Neutral (4), Agree (13)	6.00 (2.00)	68%
37	The types of moral agents that can be identified in a PMIE include: Self.*	Disagree (0), Neutral (0), Agree (19)	7.00 (1.00)	100%
38	The types of moral agents that can be identified in a PMIE include: Other.*	Disagree (0), Neutral (0), Agree (19)	7.00 (0.50)	100%
39	The types of moral agents that can be identified in a PMIE include: Group, institution or organization.*	Disagree (1), Neutral (1), Agree (17)	7.00 (1.00)	90%
40	For an event to be experienced as transgressive, the individual must place blame (whether accurate or not) on the moral agent identified.	Disagree (1), Neutral (4), Agree (14)	6.00 (1.50)	74%
	Betrayal Statement			
41	An act of betrayal necessarily involves a transgressive act of omission or commission on the part of a trusted party.	Disagree (3), Neutral (3), Agree (13)	6.00 (2.00)	68%
42	With regard to the above statement, a trusted party can refer to: Another individual (i.e. I was betrayed by someone I trusted; I saw/learned of someone else being betrayed by someone they trusted)	Disagree (0), Neutral (1), Agree (14), N/A (3)	6.50 (1.00)	78%
43	With regard to the above statement, a trusted party can refer to: A group of individuals (e.g. healthcare team, unit members)	Disagree (0), Neutral (1), Agree (14), N/A (3)	6.50 (1.00)	78%
44	With regard to the above statement, a trusted party can refer to: An organization or institution (e.g. the military, a university, the government)	Disagree (0), Neutral (1), Agree (14), N/A (3)	6.50 (1.00)	78%
45	With regard to the above statement, a trusted party can refer to: – Oneself (i.e. I betrayed someone or I betrayed some deeply held personal moral value)	Disagree (1), Neutral (2), Agree (12), N/A (3)	6.00 (3.00)	67%
46	With regard to the above statement, a trusted party can refer to: A deity or other important source of spiritual faith (e.g. G-d(s), angel(s))	Disagree (1), Neutral (3), Agree (11), N/A (3)	6.00 (3.00)	61%
47	What is considered an 'act of betrayal' is objective – an act of betrayal refers to an observable and measurable act for which there is clear evidence of a breach of trust (e.g. documented evidence of a commanding officer acting as a spy for an enemy).	Disagree (7), Neutral (2), Agree (9)	4.50 (3.75)	50%
48	What is considered an 'act of betrayal' is subjective – an act of betrayal is defined by an individual's subjective appraisal that a deeply held value (e.g. trust) was transgressed.	Disagree (3), Neutral (1), Agree (14)	6.00 (1.00)	78%
49	An act of betrayal can be considered a PMIE.	Disagree (2), Neutral (3), Agree (13)	6.00 (2.75)	72%
50	Betrayal is not an event, but the psychological (i.e. cognitive, affective) response to a transgressive act involving an act of omission or commission on the part of a trusted party.	Disagree (8), Neutral (3), Agree (6)	4.00 (3.00)	35%
51	Betrayal is a concept that is distinct from PMIEs – the concept should not be considered within a definition of PMIEs.	Disagree (15), Neutral (1), Agree (2)	2.00 (1.00)	11%[a]
52	Betrayal is a concept that is distinct from moral injury as an outcome – the concept should not be considered within a definition of moral injury.	Disagree (16), Neutral (1), Agree (1)	2.00 (1.00)	6%[a]
	Subjectivity Statements			
53	For an event to be considered a PMIE, it is not necessary that the individual experiences a high degree of distress during the event or series of events.	Disagree (7), Neutral (1), Agree (11)	5.00 (4.00)	58%
54	Whether an event is considered morally transgressive (i.e. a PMIE) is based on the subjective appraisal of the individual encountering that event.	Disagree (3), Neutral (2), Agree (14)	6.00 (2.00)	74%
	High Stakes Statements			
55	For an event or series of events to be considered potentially morally injurious, the context of the event(s) needs to be high-stakes in nature.	Disagree (4), Neutral (3), Agree (12)	6.00 (2.00)	63%
56	In the case of PMIEs … The risk of significant harm done to the welfare of oneself or others (i.e. well-being, fortune, health, happiness) would be considered 'high-stakes.'	Disagree (0), Neutral (5), Agree (14)	6.00 (2.50)	74%
57	In the case of PMIEs … The risk of significant harm done to one's own physical integrity (e.g. risk of serious injury or death to self) would be considered 'high-stakes.'	Disagree (0), Neutral (6), Agree (12), N/A (1)	5.00 (2.50)	63%
58	In the case of PMIEs … The risk of significant harm done to others' physical integrity (i.e. risk of serious injury or death to others) would be considered 'high-stakes.'	Disagree (0), Neutral (6), Agree (12), N/A (1)	5.00 (2.50)	63%
59	In the case of PMIEs … The risk of significant harm done to one's own sexual integrity (i.e. risk of sexual violence) would be considered 'high-stakes.'	Disagree (1), Neutral (5), Agree (12), N/A (1)	6.00 (3.00)	63%
60	In the case of PMIEs … The risk of significant harm done to others' sexual integrity (i.e. sexual violence) would be considered 'high-stakes.'	Disagree (1), Neutral (5), Agree (12), N/A (1)	6.00 (3.00)	63%
61	In the case of PMIEs … The risk of significant violation of one's own moral beliefs would be considered 'high-stakes.'	Disagree (0), Neutral (5), Agree (13), N/A (1)	6.00 (3.00)	68%
62	In the case of PMIEs … The risk of significant violation of others' moral beliefs would be considered 'high-stakes.'	Disagree (3), Neutral (5), Agree (11)	5.00 (2.00)	58%
63	A high-stakes event or series of events is defined by the potential for significant harm in one or more of the above areas. The presence of risk alone is sufficient for an event or series of events to be considered high-stakes; actual harm having resulted from the event is not a necessary condition for an event to be considered 'high-stakes.'	Disagree (1), Neutral (4), Agree (13)	6.00 (1.75)	63%

Note: IQR = Interquartile Range; *Item reached ≥80% consensus. [a] > 80% of the experts *disagreed* with these statements. For the complete list of statements provided across Rounds 2 and 3, see Supplemental File 4.

55% of statements reached consensus. Final statements, corresponding agreement levels and descriptive statistics are shown in Table 4. Qualitative feedback for each theme is described below, providing context to experts' responses. Particular attention is paid to non-consensus items so as to elucidate ongoing areas of debate surrounding definitions of PMIEs.

3.1.2.1. Exposure. Consensus was reached for all three statements describing different ways in which PMIE exposure can occur (i.e. acutely, chronically, or cumulatively) and for one statement clarifying that an event does not need to result in harm for it to be considered a PMIE (Table 4).

Feedback provided for statement 4 (Table 4), which did not reach consensus in Round 2, highlighted that, in the context of PMIEs, the moral violation itself, rather than actual harm done is central. One expert noted, 'If the injury is that one violated one's morals, then actual harm has no bearing on the conversation' (P17). Another added 'A PMIE can be a 'close call' event' such as 'almost hitting a kid while driving drunk' (P11). Experts also recommended clarifying the concept of 'harm' (P8, P20, P4), for example by specifying 'real or imagined harm' (P13, P2).

3.1.2.2. Transgressive acts. Statements for this theme describe types and features of transgressive acts (e.g. acts of commission, omission, betrayal), how they relate to PMIEs, and the types of values and standards that can be violated during PMIEs (e.g. trust, personal agency). All but one statement (16) for this theme reached consensus (Table 4).

For statement 16, feedback across rounds suggested issues stemming around language being limited to interpersonal acts (P1, P4, P5, P7, P9, P12), with caution emphasised about defining institutional, systemic or organisational transgressions strictly as interpersonal acts (P1, P4, P12). Some suggested 'intrapersonal acts' should be added (P10, P19), while another expert emphasised that 'institutional betrayal' can be 'entirely impersonal' (P5). Some suggested broadening language to include acts involving: harm to animals (P3, P10, P18), harm to the environment (P10, P12, P18), and harm involving relationships with divine or sentient beings (P12, P16). Finally, Round 3 feedback included an important caution that 'not every transgressive act is a PMIE' (P9, P10).

3.1.2.2. Consequences of PMIEs. Six of eight statements addressing PMIE-related consequences reached consensus. These included those describing areas of impact regarding functioning (e.g. interpersonal, occupational) and the role of distress and a dimensional understanding of such with regards to PMIE impacts.

Regarding statements that did not reach consensus (statements 25 and 26; Table 4), experts consistently emphasised the need for clearer definitions of cognitive and biological dysfunction (P6, P12, P19, P20), initially included as impacts based on Round 1 responses. Given Delphi methodology, where definitions arise from panel input, experts were invited in Round 3 to define these terms and reassess their agreement. One expert defined cognitive dysfunction as 'deficits in attention, verbal and nonverbal learning, short-term and working memory, visual and auditory processing, problem solving, processing speed, and motor functioning' (P2). No definitions were provided for biological dysfunction.

Experts also consistently advised cautious language, noting PMIEs *may* involve cognitive and biological dysfunction (P2, P3, P5, P7, P15, P18). Several acknowledged a potential link between PMIEs and cognitive dysfunction but differed in interpretation (e.g. through 'cognitive rigidity' and 'rumination;' P10, P15, 'distorted, inaccurate, pervasive beliefs about self, others [and] the world;' P12, or obsessions with 'shame and guilt;' P10). Similarly, some noted possible links with biological or physical issues (P9, P11, P13, P14), including indirect effects (e.g. 'a person doesn't take good care of themself because they feel they are not worth it;' P10). One expert cautioned against implying 'biological determinism' (P5).

3.1.2.3. Trauma vs. PMIE. Experts reached consensus on 5/7 statements comparing PMIEs to traumatic events (Table 4) describing the role and timing of moral appraisals in defining PMIEs, and clarifying that traumatic events can be morally injurious but that this is not a condition of a PMIE.

Regarding non-consensus items, for statement 32, various experts highlighted the 'moral quality' of PMIE-related distress as a distinguishing feature (P3, P9, P11), though some indicated the term needed clarification (P5, P10). Others disagreed, arguing that traumatic events can also inherently involve moral elements (P1, P2, P17). Some questioned the definition of 'traumatic event' (P14, P17); while another questioned the premise of the statement entirely (P7).

Regarding statement 34, experts raised concerns about the term 'extreme end' (P2, P3, P5, P9), arguing that extremity is subjective (P5, P9). One expert clarified that intensity should be determined by one's 'response to the event,' not the event itself (P14).

3.1.2.4. Moral agent. Experts reached consensus on 3/5 statements (Table 4) related to moral agency, clarifying that moral agents involved in PMIEs can be oneself, others, or groups, organisations or institutions.

For statements 36 and 40, experts debated the definition and scope of 'moral agent.' Some suggested

expanding it to include multiple agents (P5), fate, or individuals as their own moral agent (P10, P16). Others found the statement too complex (P7) or philosophical (P2). One expert disagreed that groups or organisations could be moral agents, stating 'all acts are carried out by individuals' (P17). Another noted that 'a specific moral agent [can be] difficult to identify', emphasising the need for greater empirical support for this statement (P14). Concerns also arose around the subjectivity of appraisal (e.g. 'whose appraisal is the 'one that counts?''; P2), and around impacts of broad interpretations of moral agents (P9).

Blame and responsibility emerged as additional points of debate. One expert critiqued the phrase 'whether accurate or not' as 'dichotomous,' arguing that in PMIEs responsibility is often shared, and that from a clinical perspective 'accuracy of blame is a difficult thing' (P10). Another participant disagreed entirely: 'I don't think 'blame' has anything to do with PMIEs' (P13).

3.1.2.5. Betrayal. This theme addressed betrayal in the context of PMIEs. Two statements reached *dissensus* (Table 4), highlighting that experts agreed that the concept of betrayal belongs within a definition of PMIEs, rather than be distinct from it. The remaining ten that did not reach agreement fall into two categories: defining trusted parties and conceptualising betrayal.

Regarding the former (statements 41-46), experts suggested revisions such as replacing 'i.e.' with 'e.g.' (P3, P7), and clarifying 'transgressive act' (P17). Context was seen as critical to defining trust (e.g. 'military personnel who do not trust their command may still be harmed by their leaders actions'; P2). One expert recommended including broader categories like 'cultural/ethnic group[s]' and 'one's spirits and/or ancestors' (P5). Others emphasised the importance of prior relationship history with 'those who betray them' (P2). One expert questioned whether betrayal of spiritual faith 'is necessary to conceptualise a trusted party' (P20). Another suggested distinguishing betrayal from MI, stating that they produce distinct emotional responses (e.g. MI tends to evoke shame and guilt, while betrayal more commonly evokes anger, bitterness, and disillusionment; P11).

For statements 47-52, despite differing views, experts generally agreed that betrayal and MI/PMIEs are connected, but debated its subjective versus objective nature. Some experts highlighted subjective perception as a key element of betrayal (P7, P9, P14, P20), while others argued that both dimensions need 'not be mutually exclusive' (P4). One expert highlighted complexities regarding 'false or misguided feelings of betrayal' (e.g. not feeling betrayed in response to betrayal, or wrongly feeling betrayed), arguing that 'if an act of betrayal is committed, the only accurate response would be the feeling of having been betrayed' (P17). Some experts also recognised betrayal as both an act and emotional response (P4, P15), and one suggested these issues may be best addressed by moral philosophers and psychologists (P2).

3.1.2.6. Subjectivity. Panel members did not reach consensus on either item addressing the importance of considering individual subjectivity in defining PMIEs.

Experts were divided on whether distress is essential to defining a PMIE. Some argued that a PMIE *has to* be distressing (P1, P9) while others noted the word 'potentially' in PMIEs implies this is not inherently so (P17, P12, P2). Several clarified that distress might not be immediate due to factors like dissociation or limited information (P10, P18). Additionally, one noted that absence of initial distress may itself cause distress later (P9).

Various experts agreed that subjective appraisal is central to identifying morally transgressive events (P3, P5, P7, P9, P17, P18, P20), while raising limitations and the need for context. One expert noted that someone may not frame their experience as a PMIE or MI without prior knowledge of the concept (P5). Others highlighted that moral appraisals are socially shaped, not innate standards (P11), and that communities serve to define and evaluate moral norms and transgressions (P12). Additional concerns included context-specificity of appraisals (P10), and the existence of what one expert deemed 'events that are objectively morally transgressive regardless of an individual's appraisal of it. For instance, sexual assault/abuse that may be denied as such' (P2).

3.1.2.7. High-stakes. Consensus was not reached for all nine statements addressing the concept of 'high-stakes' in defining PMIEs (Table 4). Feedback clustered around three subthemes: defining high-stakes, types of high-stakes risks, and risk versus outcome.

Regarding statement 55, experts criticised the term 'high-stakes' as ambiguous and subjective (P3, P5, P7, P11, P16, P17), with one favoring the term 'potential for harm' (P3). Some emphasised context as central, arguing stakes must 'implicate standard or values important to the person' (P14, P17), or be considered 'high-stakes' for the 'average individual within their peer group' (P18). Whereas another expressed the context of the high-stakes event need not be personally meaningful (P16). Experts also cautioned that over-defining 'high-stakes' may 'limit the types of PMIEs that can be acknowledged' (P5), with disagreement noted as to whether death/injury must always be considered high-stakes (P9, P10). Other perspectives included that 'high-stakes is a peritraumatic risk factor' and 'it muddies the water to link to the criteria for a PMIE' (P11).

For statements 56-62, concerns arose around subjectivity (e.g. the term 'significant;'P3), and with

'who determines whether [a] PMIE rises to the level of being a significant violation/harm?' (P5). Grammatical limitations ('i.e.' P3, P16) and concerns about classifying 'violations of others' moral beliefs' (statement 62) as PMIEs (P5, P9, P20) were also raised. One expert questioned if it would count as a PMIE if it didn't 'violate one's own moral beliefs in addition,' (P9) and P20 added 'we can't really know for sure what another person's moral beliefs are.'

One expert argued 'the highest stake is of the body, our own and others'' (P10), whereas another expressed 'some of the events might contribute to […] PTSD while those that significantly violate moral beliefs are more closely aligned with MI' (P18). P17 similarly noted the overlap with PTSD criteria was problematic in establishing the boundaries of MI, whereas P7 expressed a need for language 'like Crit[erion] A for PTSD.' Another expert proposed including threats to 'identity, and […] one's core self' (P12).

Regarding risk versus outcome (statement 63), experts raised concerns about ambiguous terms ('significant' and 'risk;' P2, P3, P5, P7). Several agreed potential harm alone could render an event high-stakes (e.g. shooting at a child even if no harm occurred and no one else noticed; P9, P10, P12, P20). Opinions again diverged on aligning definitions with PTSD criteria (P7, P17) and one expert cautioned that 'unless [the individual] actually experienced harm, it might be impossible to distinguish between threat and actual harm' (P18).

4. Discussion

This study presents an in-depth, expert-driven examination of current areas of consensus and debate around the defining features of PMIEs and their impacts. The rigorous generation and evaluation of statements, alongside qualitative feedback, offer avenues for refinements in theory, research and practice in the field of MI.

4.1. Definitional framework of PMIEs

Acknowledging the nuances and limitations of boundary construction, we provide a three-step working definitional framework of PMIEs based on high-consensus items. Step 1 focuses on exposure (100% consensus), Step 2 on qualities of exposure, and Step 3 on consequences of PMIEs (≥80% consensus).

1. PMIEs involve acts of commission or omission enacted by oneself or others. PMIEs can be single, acute, chronic (i.e. similar incidents experienced over time), or cumulative events (i.e. multiple incidents accumulated over time).
2. PMIEs are morally transgressive in nature, and can involve both active (i.e. deliberate) and passive (i.e. unintentional) acts of commission or omission, betrayal, being the victim of others' transgressive acts, witnessing a transgressive act (including groups, institutions and organisations), or witnessing the aftermath of a transgressive act which caused serious harm. An event may be considered a PMIE regardless of whether it resulted in actual harm. Violations invoked by PMIEs may include violations of trust, personal agency, expected standards of behaviour, social agreements, or other core moral values. Traumatic events can be morally injurious, however this is not a condition of a PMIE. What makes a PMIE unique relative to a traumatic event is the appraisal of a moral transgression, whether immediate or delayed.
3. The consequences of PMIEs exist on a spectrum defined by degree of functional impairment, including impairments to interpersonal, occupational, and spiritual functioning. Consequences of PMIEs include clinically significant distress and can at times manifest in the form of mental disorders. Core responses to PMIEs involve moral emotions, and threats to moral beliefs, integrity and trust. See Table 3 for additional agreed-upon consequences.

Key areas of debate to consider alongside this framework include: (a) defining betrayal (i.e. event or response) and its role in MI; (b) the role of subjective appraisal in defining PMIEs; (c) how contextual factors, including 'high-stakes' features, shape PMIEs; (d) identifying moral agents and the role of blame; (e) clarifying inter – and intra-personal schemas invoked in PMIEs and their role in shaping PMIE definitions and outcomes; (f) how moral distress arises from traumatic vs non-traumatic events; (g) gauging PMIEs severity, the threshold at which PMIEs evoke functional impairments, and the role of peri-PMIE distress.

4.2. Implications and recommendations

Further research is needed to substantiate experts' perspectives. This framework should be considered within the broader evolving literature on the conceptualisation of trauma and stressor-related difficulties Brewin et al., 2025; Marx et al. 2024), as well as emerging theoretical frameworks and hypotheses for MI (e.g. Litz & Walker, 2025; O'Brien et al., 2024; Antal et al., 2024; ter Heide, 2020). Systematic reviews, meta-analyses and experimental methods, such as those testing the impacts of defined scenarios (e.g. passive and active acts of omission or commission identified in consensus statements) could help to clarify the nature of distress linked to different PMIE exposures. Preliminary research using a MI framework has begun in this regard (Birch et al., 2025; Hertz et al., 2022). Integrating these methods with prior studies

examining interactions among arousal, emotional valence and moral judgements (e.g. Carmona-Perera et al., 2013; Cheng et al., 2013; McDonald et al., 2017; de la Viña et al., 2015) may further refine the MI construct.

Findings from this study underscore ongoing debate about how PMIEs compare to potentially traumatic events. Discussions of objectivity versus subjectivity in defining PMIEs and betrayal also mirror broader tensions in conceptualising trauma and PTSD (Brewin et al., 2025; Marx et al., 2024), highlighting unresolved questions about causality within the stressor-related syndrome paradigm. Marx and colleagues (2024) suggest applying existing frameworks, such as Dohrenwend's (2000) characteristics of stressful life events (source, valence, unpredictability, magnitude, centrality, and functional impact), to refine taxonomies of stressor-related difficulties. Importantly, such work needs to appropriately address concerns raised around the reliability and validity of MI research (see for example, Litz & Walker, 2025; Houle et al., 2024), highlighting the need for increased methodological rigour.

Clinically, the above framework can be used to guide case conceptualisation and support screening and intervention efforts, as the literature continues to evolve. Still, whether MI is best defined as a syndrome (Litz & Walker, 2025) or an 'explanatory framework' for other clinical problems (O'Brien et al., 2024) remains unresolved. For instance, while discussion continues surrounding the applicability of existing evidence-based PTSD treatments for MI, research is still lacking on whether interventions such as cognitive-processing therapy and prolonged exposure therapy effectively address MI-specific impairment. Critics caution that cognitive restructuring and fear habituation, mechanisms central to these therapies, may not adequately target the core characteristics of MI. Our findings confirm that, despite debate, subjective appraisals remain central to MI conceptualisation, underscoring the need to distinguish erroneous from context-appropriate emotional responses to PMIEs. Further, other potential mechanisms associated with both positive and negative consequences of PMIEs identified here also require further study. Some of these, such as acceptance, self-compassion, and shared unburdening, have begun to be explored using an MI framework (Antal et al., 2019; Borges et al., 2022; Farnsworth et al., 2017). Features like rigidity in moral beliefs also warrant further investigation, given their potential dual role as both impacts and risk factors. These issues should also be considered within the developing literature on complex PTSD and MI (e.g. Nickerson et al., 2025; Turgoose & Murphy, 2024), as well as broader critiques of PTSD guidelines, which have been challenged for overlooking interpersonal factors, individual differences and case complexity (e.g. Courtois & Brown, 2019; Hoge et al., 2024). Importantly, recently developed, psychometrically sound outcome measures (e.g. Moral Injury Outcome Scale (Litz et al., 2022), Moral Injury Distress Scale; (Norman et al., 2024; see Houle et al., 2024) for a comprehensive review) include content aligning with features of PMIEs and MI identified in this study, and should be used to investigate questions regarding clinical utility and MI outcomes.

Clarification of how developmental history, pre-existing mental health conditions, moral identity, coping styles, personality, culture, interpersonal support, and intersecting minority identities interact with systemic factors (e.g. institutional betrayal, resource constraints, injustice; Brewin et al., 2025; Elbasheir et al., 2024; Griffin et al., 2023; ter Heide & Olff, 2023; Ziv, 2023) shape vulnerability to PMIE and MI etiology is needed. Occupation-specific contexts (e.g. combat versus peacekeeping operations; Nordstrand et al., 2025, secure versus public mental health care workers; Webb et al., 2025) and exposure characteristics (e.g. perpetration vs. witnessing, frequency, proximity) should also be examined, building on the evidence from psychological proximity and interpersonal trauma research (e.g. Ehring & Quack, 2010; Forbes et al., 2012), and guided by this study's definitional statements.

As MI definitions evolve, equal attention should be given to defining moral health (Talbert & Wolfendale, 2023). Although experts were prompted to consider both positive and negative impacts of PMIEs, responses focused largely on negative impacts. Talbert & Wolfendale (2023) note that certain features of MI, such as guilt following moral conflict, may more accurately reflect moral health, while the absence of such response could indicate moral dysfunction. Still, framing guilt as a primary litmus test risks missing the broader clinical picture (i.e. constellation of other distressing emotions and measurable functional impairment). The absence of a clear benchmark for moral health risks both over-pathologizing normative distress and undervaluing the nuanced patterns of impairment that distinguish true MI from healthy moral concern.

4.3. Limitations

While the panel was designed to be interdisciplinary, this study was framed through a human-centered, clinical science lens, which may have biased its conceptual framing. Further, a subset of participants who completed the Round 1 open-ended survey did not participate in subsequent rounds. The perspectives of these individuals, which informed the development of the Likert statements, may have contributed to areas of non-consensus.

Most expert panel members were from Western, industrialised countries, limiting cultural representation. Given that cultures can differ substantially in their conceptualizations of trauma and psychological distress, the

values inherent to cohesion in a given society as well as the role of religion in guiding a society's moral frameworks, additional research and replication of this study's findings is needed with broader disciplinary and cultural input (Antal et al., 2024; ter Heide & Olff , 2023; Molendijk et al., 2022). As noted recently by Brewin and colleagues (2025), groups with high risk for trauma have often been excluded from definitional discussions, a gap highlighting the need for more inclusive frameworks. Many marginalised groups remain unrepresented in MI research, and culturally informed models are essential to ensure relevance and equity across diverse populations. Most experts in this study were also involved in academic and/or formal clinical service provision, and additional replication of this work among lived experience experts across cultures is highly warranted.

Interestingly, anger did not reach high consensus as a key impact of PMIEs. This finding may be indicative of contentions raised around the relationship between betrayal, PMIEs and MI, as associations between anger and betrayal have long been established in the literature, within and outside the context of trauma and MI (Berke et al., 2022; Herman, 2015; Jordan et al., 2017; Rachman, 2010; Sarkissian & Yalch, 2024; Tuomisto & Roche, 2018). Indeed, despite widespread discussion in the literature regarding PMIE subtypes and their impacts (i.e. self – vs. other-perpetrated transgressions), participants did not emphasise the need to further specify these distinctions during our Delphi process. Research applying this framework should investigate whether specific PMIE features elicit distinct patterns of distress that are statistically and clinically differentiable.

5. Conclusion

This study provides a systematic synthesis of expert agreement and debate in the field of MI. The resulting consensus-based framework clarifies the operationalisation of key mechanisms and characteristics of PMIEs and their impacts, in an effort to guide future research and practice.

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No potential conflict of interest was reported by the author(s).

Data availability statement

The authors confirm that the data supporting the findings of this study are available within the article and its supplementary materials.

ORCID

Stephanie A. Houle http://orcid.org/0000-0002-8501-2822
Michelle Birch http://orcid.org/0000-0002-0063-1481
Dominic Murphy http://orcid.org/0000-0002-9530-2743
Neil Greenberg http://orcid.org/0000-0003-4550-2971
Anthony Nazarov http://orcid.org/0000-0002-3288-7609
J. Don Richardson http://orcid.org/0000-0002-2927-6735

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