# Family and occupational functioning following military trauma exposure and moral injury

Victoria Williamson , , D Murphy, S AM Stevelink, E Jones, A S Allen, N Greenberg

<sup>1</sup>KCMHR, Institute of Psychiatry Psychology and Neuroscience Department of Basic and Clinical Neuroscience, London, UK

<sup>2</sup>Department of Experimental Psychology, Anna Watts Building, University of Oxford, Oxford, UK

<sup>3</sup>Combat Stress, Leatherhead, UK

<sup>4</sup>Department of War Studies, King's College London, London, LIK

#### Correspondence to

Victoria Williamson, KCMHR, Institute of Psychiatry Psychology and Neuroscience Department of Basic and Clinical Neuroscience, London, UK; victoria.williamson@kcl. ac.uk

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#### **ABSTRACT**

**Introduction** Evidence is growing regarding the impact of potentially morally injurious events (PMIEs) on mental health; yet how moral injury may affect an individual's occupational and familial functioning remains poorly understood.

**Method** Thirty male veterans who reported exposure to either traumatic or morally injurious events and 15 clinicians were recruited for semi-structured qualitative interviews.

**Results** While many veterans experienced psychological distress postevent, those who experienced PMIEs especially reported social withdrawal and engagement in aggressive, risk-taking behaviours. This was highly distressing for family members and created a tense, volatile home and workplace environment that was difficult for others to navigate. Following PMIEs, employment could be used as a cognitive avoidance strategy or as a means to atone for transgressive acts. In cases of moral injury, clinicians considered that targeted support for spouses and accessible guidance to help children to better understand how their military parent may be feeling would be beneficial.

**Conclusions** This study provides some of the first evidence of the pervasive negative impact of PMIEs on veterans' familial and occupational functioning. These findings highlight the need to comprehensively screen for the impact of moral injury on daily functioning in future studies that goes beyond just an assessment of psychological symptoms.

#### INTRODUCTION

Potentially morally injurious events (PMIEs), or experiences which challenge a person's ethical or moral code, 1-3 can cause profound psychological distress. PMIEs can result in feelings of deep shame, guilt, worthlessness and disgust and negative attributions about the self and others (eg, "I am a monster", 'the world is a horrific place'). This, in turn, can contribute towards the development of a range of mental health difficulties, including post-traumatic stress disorder (PTSD), depression and suicidal ideation. <sup>1 4 5</sup> In particular, veterans reporting symptoms of moral injury also appear to be at increased risk of experiencing more complex symptoms of PTSD.<sup>6</sup> Although the majority of veterans do well after leaving military service,<sup>7</sup> those who suffer from PTSD and other psychological problems can face a series of difficulties which affect their daily functioning, including trouble maintaining civilian employment and challenges coping with parenting responsibilities.<sup>8–10</sup>

# **Key messages**

- ► Evidence is growing regarding the impact of potentially morally injurious events on mental health, yet how moral injury may affect an individual's occupational and familial functioning remains poorly understood.
- ➤ This research provides some of the first comprehensive evidence of the pervasive negative impact of experiences of moral injury on veterans' familial and occupational functioning.
- Veterans who experienced morally injurious events reported social withdrawal and engagement in aggressive, risk-taking behaviours, which was highly distressing for family members and colleagues.
- ► In cases of moral injury exposure, providing targeted advice and psychoeducation about moral injury and its consequences may improve both patient and familial coping.
- While no manualised treatment for moral injury exists, a useful adjunct to emerging treatments may be to address issues surrounding barriers to long-term employment.

Evidence is growing regarding the impact of PMIEs on mental health,<sup>5</sup> however, what is less well understood is how moral injury and the resulting psychological distress may affect an individual's functioning across various life domains, including familial and occupational functioning. One recent pilot study found morally injured UK veterans experience significant difficulties in coping with occupational stress, as well as challenges getting along with authority figures and interpersonal problems with family members.<sup>3</sup> However, this study was based on a small sample (n=6) of treatment-seeking military veterans and the range of implications that moral injury may have for daily functioning in UK veterans remains poorly understood. The secondary effects of mental health problems following threat-based trauma exposure on social and economic outcomes have been well explored in previous studies, for example, PTSD has been found to be associated with higher levels of marital dissatisfaction. 11 Improving occupational and familial functioning is often a treatment goal for clinicians working with patients experiencing trauma-related mental health problems, with previous studies finding that a reduction particularly in hyperarousal and re-experiencing symptoms to be associated with



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improvements in occupational functioning. <sup>12</sup> Yet, whether those with moral injury-related mental health problems have distinct difficulties at home or in the workplace, and potentially different support needs, remains underexplored.

Without an in-depth understanding of how moral injury may affect the familial and working lives of veterans, we cannot ensure that appropriate advice and guidance is available to support veterans and promote a positive transition from the Armed Forces (AF) to civilian life. Moreover, how clinicians currently support patients in managing the potential secondary effects of moral injury on their occupation and family functioning is unclear. Thus, the aim of this study was to explore the impact of veteran experiences of moral injury on their daily functioning, relationships with spouses, family members and colleagues as well as their perceived support needs.

#### **METHODS**

This study was nested within a larger programme of research examining the impact of moral injury on the well-being of UK military veterans. <sup>13</sup>

# **Veteran participants**

Between October 2018 and January 2019, 30 UK veterans were recruited. We used opportunity sampling and participants were recruited by distribution of the study information on social media, veteran-affiliated newsletters and magazines. Snowballing was also used, with veteran participants asked to share study information with others. Individuals who contacted the research team were screened for eligibility in line with study inclusion/exclusion criteria.

Veterans were eligible if they were aged 18 years and above, served in the UK AF and reported experiencing a challenging event during military service. Those who were unable to speak English, had speech or hearing difficulties or were still serving in the AF were ineligible. Of the 31 participants who contacted the research team, 30 consented to take part. No veteran participants were excluded from the study, rather it was not possible to contact the remaining one participant.

# **Clinician participants**

During the same time period, 15 clinicians were recruited to the study. Inclusion criteria were having provided psychological treatment to a UK military personnel or veteran within the last 6 months whom the clinician felt had experienced moral injury-related psychological difficulties. We employed a snowball sampling methodology. Emails were sent to all clinicians responsible for providing trauma therapy across several collaborating veterans mental health charities in the UK as well as circulating study advertisements via mailing lists and social media. Participating clinicians were also asked to share the study with colleagues. Of the 21 clinicians who contacted the research team about participating in the study, 15 (71%) consented. Five clinicians became uncontactable, and one was not eligible to participate having not practised as a clinician for several years.

#### **Procedure**

Following informed consent, all veterans were asked whether they had experienced an event(s) during military service, which challenged their view of who they are, the world they live in or their sense of right and wrong and to provide a brief summary of the event. If participants described exposure to multiple events, they were asked to state which event bothered them the most and this event became the focus of the interview. Veteran participants

were considered to have exposure to a PMIE if the event was an act of omission, commission or betrayal by trusted others that violated their moral or ethical code and where the primary emotion expressed was guilt/shame. 13 14 Veteran participants were categorised as having experienced a trauma-only incident if the event described was in keeping with the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition criterion A and an act of commission/omission that violated their moral code was not reported. Participants were classified as 'mixed' if elements of both traumatic and morally injurious experiences were described; for example, the event was both potentially life-threatening and morally injurious. 14 Researchers VW and SA classified participants as morally injured, trauma exposed or 'mixed' by reviewing participant data independently. Disagreements between authors were infrequent and resolved following a re-examination of the data. Further information is available in the study by Williamson et al. 13

#### **Oualitative interview schedule**

The semi-structured interview schedules for both veterans and clinicians were developed based on the research questions and the existing literature on moral injury and post-trauma responses. <sup>1 2 15</sup> Both interview schedules were piloted with UK veterans and clinicians prior to data collection to confirm the questions were sensitive, with adjustments made accordingly to ensure probes were sufficiently thorough and appropriately worded. Veteran interview questions focused on the experiences of traumatic or morally injurious events and the impact of such events on well-being and daily functioning. Clinician interview questions explored perceptions of military-related trauma exposure and moral injury experienced by UK personnel/veterans, the impact of such events on patient well-being and views regarding necessary changes to clinical practice or policy to address moral injury and improve outcomes.

#### **Analysis**

To facilitate data analysis, NVivo V.12 was used. The approach recommended by Braun and Clarke<sup>16</sup> was followed: data were read several times, initial codes generated, candidate themes suggested, with themes revised and classified further. Thematic analysis was used as it is a method suitable for larger sample sizes and is an analytical strategy used to identify patterns of meaning across the data set as a whole, in keeping with the objective of this study to explore the impact of moral injury on daily functioning. An inductive analytic approach was used, with initial codes and themes proposed by the primary researcher (VW). Data collection and analysis took place simultaneously to permit emerging topics of interest to be investigated further in later interviews and to determine whether thematic saturation had been reached. A reflexive journal was kept throughout data collection and analysis by the primary researcher (VW) in order to recognise the influence of the researcher's prior experiences, thoughts and assumptions and avoid premature or biased interpretations of the data. To ensure reliability, authors VW and SA independently reviewed the full dataset, with all codes and themes examined for agreement, coherence and accuracy. Disagreements between authors were infrequent and were resolved following discussion and re-examination of the data. Reflective memos were kept regarding researchers' (VW and SA) thoughts about emerging themes and the potential relationships between themes. Peer debriefing was conducted to further enhance the credibility and trustworthiness of the results, with discussions held about emerging findings and feedback regarding data interpretation

and analysis sought from coauthors SAMS, DM, NG, and EJ who have experience with military mental health, family functioning and qualitative methods.

## **RESULTS**

#### **Demographic characteristics**

The mean age of clinicians was 47.1 years (9.4 SD) and 10 (66.7%) were male. Three (20.0%) participants were psychiatrists, five (33.3%) were clinical psychologists and seven (46.7%) were mental health nurses. Clinicians were all currently practising and had worked in clinical practice for an average of 16.5 years (1–32 years range). Eight clinician participants had also previously served in the AF.

The 30 veteran participants were male with an average age of 46.3 years (SD 12.4; range 27–68 years). The majority (93.3%) had served in the British Army. All reported having been deployed during their military service, with an average of five deployments. Fifteen veteran participants reported exposure to a PMIE, nine veterans had experienced a 'mixed' event where the event was both potentially morally injurious and traumatic/lifethreatening (eg, mistreating civilians/enemy combatants after being threatened) and six veterans experienced a traumatic or life-threatening (non-morally injurious) event.

# **Qualitative findings**

Three key themes emerged from the data regarding the perceived impact of veteran experiences of morally injurious, 'mixed' and non-morally injurious traumatic events on their occupational and family functioning: (maladaptive) coping strategies; the perceived impact of veteran's post-trauma psychological distress on others and perceptions of veteran support needs. All excerpts included to illustrate themes have been anonymised by the researcher.

# (Maladaptive) coping strategies

# Non-disclosure of the event and associated distress

Veterans exposed to morally injurious, 'mixed' and non-morally injurious traumatic events across the sample often described not disclosing the event and their associated distress to their families because, as civilians, they were considered unlikely to understand their experience. However, there were distinct reasons for non-disclosure to families described by veterans who experienced a morally injurious or 'mixed' event. These veterans and clinicians reported that non-disclosure stemmed from the profound shame, guilt or disgust felt relating to the PMIE. Veterans were also concerned that disclosure of the PMIE would cause their families to view them negatively.

Clinician: In all the fear-based stuff you might cling on to your friends and family and become very dependent on them to help you create a sense of safety. I think with moral injury you really distance yourself from people because you have such shame about your own self-worth... 'I don't deserve to have friends, I don't deserve my family to be around me, I don't want to taint them with my wrongness or my badness'.

I: Did you tell your friends or family about what happened? Veteran (moral injury): ...[No], it was an internal struggle within myself. Almost ashamed really. Almost ashamed of getting it out there and a fear of being judged myself, if that makes sense. And that if you've got to know the real me maybe you wouldn't like me so I'm going to protect myself and I'm not going to let you in.

Non-disclosure of the PMIE and resulting distress was also reported in occupational contexts. Across the sample, when veterans felt that they were struggling with event-related psychological distress, there was a consensus that this distress could not be discussed or disclosed during their military service due to concerns that they may be seen as a 'liability' by members of their unit. Those who had experienced a morally injurious or 'mixed' event felt unable to raise concerns about the ethical/moral ramifications of the event with others at the time as they felt that this would cause friction within their unit. These challenges continued on leaving the military and many veterans reported that they had a family to provide for and disclosing mental health problems to a civilian employer may jeopardise their employment.

Veteran (moral injury): You are kind of brought up with a sense of values and then all of a sudden you are put into a role where if you are not on board with the other lads being a bully, you are either with the lads bullying or you're not. And you've got to live with these lads... so if you are running back to your Sergeant Major and saying 'I don't agree with what (he) just did with that lad and I don't agree with what we did with that lad and I don't agree with that situation'...you are going to end up ostracised, abandoned and rejected yourself. So, you almost become complicit with it... And in an infantry regiment, you've got to be in or you are definitely out.

## Occupation as a coping strategy

Clinicians described that veterans presenting for treatment who had experienced a challenging military event often had high rates of unemployment. Veterans who were employed, and particularly those exposed to PMIEs, reported using their job as an avoidance strategy to avoid thoughts about the event and associated distress. Clinicians and veterans exposed to PMIEs reported often worked very long hours and described that employment could be a means for veterans to atone for perceived transgressive acts. This approach was thought to be somewhat problematic as veterans often held themselves to extremely high standards at work which, when not met, could worsen their distress and contribute towards self-harming or punishing behaviour.

Clinician: So (my client) used to punish himself... who (had) such exacting standards that if at the end of the working day he didn't feel that he'd contributed, so it would be silly things like have a freezing cold shower and you are thinking well that's, but it's all the same picture isn't it, the idea that he was finding a way to punish himself.

Veteran (moral injury): When I was fully qualified, I was actually quite good (at work). The way I dealt with (what had happened) at the time was that I sunk myself into my work as an escape mechanism... I didn't really have the greatest childhood bringing up, but I found my own coping mechanisms, that is, grafting, knuckling down doing my homework, getting good grades, distracting myself from that...Anything I could to take my mind off what was going on. Finding coping mechanisms that work.

# Social withdrawal following morally injurious experiences

Withdrawal from loved ones was very commonly reported, described by both clinicians and veterans across the sample. Withdrawal was particularly prevalent in veterans who reported exposure to morally injurious and 'mixed' events. Feelings of shame, disgust and worthlessness contributed towards withdrawal as many veterans described feeling undeserving of a loving family given what they had witnessed and/or carried out during military service. Withdrawal from others was thought by both clinicians and veterans to progressively worsen veteran's moral injury-related psychological distress. This process was

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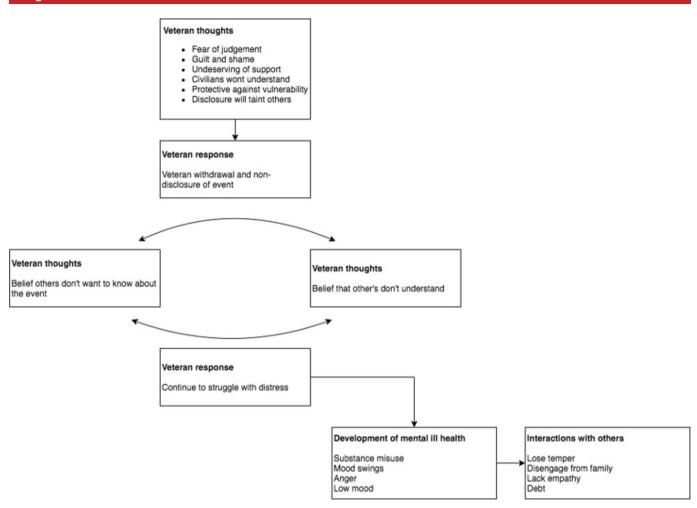


Figure 1 Perceived impact of moral injury-related distress on veteran familial and occupational functioning.

considered to be cyclical, and interactive (see figure 1), with moral injury-related distress contributing towards withdrawal from colleagues/friends/family; withdrawal contributing to veteran feelings of isolation and the belief that others do not care or understand; feeling uncared for exacerbates veterans psychological distress; others are then exposed to increasingly elevated levels of psychological distress and secondary responses (eg, substance misuse, risk-taking behaviour, aggression and so on).

Clinician: They feel guilty that their child is healthy and standing in front of them and they have this memory of what they have done, and they struggle to enjoy it I suppose. The guilt takes over...and they think they're not worthy...They don't deserve this happiness, this happy family. Which then just makes them irritable and then they end up not being able to cope with the child.

Withdrawal from others following non-morally injurious trauma was less commonly described by veterans, although, when it did occur, it reportedly reflected a coping strategy to avoid intimacy with others having experienced the death of (several) friends or colleagues during deployment. Moreover, many of these veterans described feeling that their friends and family were aware of their trauma-related distress and were concerned for them. Feeling unsupported by friends/family members was not found to the same extent in this group compared with veterans who experienced PMIEs.

Veteran (non-morally injurious trauma): I talked to (my wife) about it and told her in absolute detail with diagrams what had happened. So, she's aware of it now... She was very supportive.

# Perceived impact of veteran's post-trauma psychological distress on others

Veterans across the sample, as well as clinicians, reported that the families of veterans often saw them as profoundly changed following their military experience; close relatives were significantly impacted by the veteran's psychological distress. Clinicians and those veterans exposed to PMIEs reported that social withdrawal could be highly distressing for their family members who often internalised the reasons for this withdrawal, that they were somehow to blame.

An increase in risk-taking behaviours, including substance abuse, gambling, dangerous driving and physically or verbally aggressive behaviours at home and in the workplace following the challenging military event were frequently reported by veterans across the sample and by clinicians. Such behaviours were described as stemming from veterans' sense of self-loathing, that their life did not matter anymore, or were a means to distract from their distress. Veterans described losing their temper with their spouses and with their children, with clinicians reporting that the family often felt that they were 'walking on eggshells' around the veteran post-trauma. Particularly in cases of PMIE exposure, irritability could worsen moral injury-related distress and clinicians reported that veterans would often feel further shame and guilt for being a 'bad' partner or parent.

Clinician: (One patient), he's having a really hard time with his children...he really struggled whenever they...were just to argue, being children... he would just feel so angry. Whittling it down

it was like 'you don't know how lucky you are' and...his reference point was always those (civilian) children that (had) died. So, I think he would feel very irritated at them but then get the sense of guilt afterwards. So, if he'd shouted at them, he'd later be like I'm a bad father as well on top of all of this. So, yes, I think that was difficult.

Such interpersonal difficulties also extended to the workplace. Veterans exposed to morally injurious or 'mixed' events especially struggled to interact with authority figures. Both veterans and clinicians described that PMIEs, especially those that involved a within-ranks betrayal, contributed towards feelings of deep distrust of those in authority, with veterans often challenging or refusing orders/instructions which could cause conflict, prompting their resignation or dismissal.

Veteran ('mixed'): Some would say I was anti-authority; I've got a problem with authority.... I really struggle with if someone was to raise their voice in frustration or something like that. I can't take that in, it encourages me to lose my temper myself and just one remark can end in a blazing row.

# Perceptions of veteran support needs

Many of these veteran behaviours and responses could significantly disrupt familial and workplace functioning, creating a chaotic family environment and often a breakdown of professional and personal relationships. The majority of clinicians reported the pressing need for further support to be given to families of veterans who experienced challenging events during military service. Particularly for those who have had experienced PMIEs, clinicians considered that support to help veterans safely disclose the event to families in a way that does not negatively impact relationships, therapy for spouses themselves and accessible guidance to help children to better understand how their military parent may be feeling would be beneficial and destigmatising, yet limited funding meant such support was often unavailable.

Clinician: There's a big lack of support for veteran families. A lot of times we hear veterans say that sometimes it shouldn't be them sitting there listening to all this stuff about PTSD it should be their wives and their children because they have no clue. What I always say to veterans is they don't have to know about, they don't have to know every detail...but it might be nice to just open up and say there was an incident that happened in Afghanistan that involved children so that's why I can't do X, Y and Z or why I get angry.

Clinicians reported that interpersonal difficulties with colleagues and authority figures often meant that veterans with moral injury-related mental health difficulties sought out more solitary occupations, such as security or heavy goods vehicle driving, where they would not have to directly interact with others. Nonetheless, veterans across the sample described finding workplaces that employed other veterans helpful and a valuable source of social support due to their shared 'language' and experiences. While there were several stigma-related barriers to help-seeking, if formal help was sought at work, having a sympathetic supervisor or occupational health worker who offered them a referral to military-related mental health services (eg, Combat Stress) was experienced as beneficial.

Veteran (moral injury): (Who) I work for... there is still massive stigma with mental health, regardless of what they say...It was scary because I was very worried about my career...and what people were going to think... So, I went to the occupational therapist who was brilliant who talked me through everything... and (I was sent to) Combat Stress... which I found massively helpful from A) being with veterans again...and to be able to talk about things that

they understood, and you didn't have to explain yourself. But what I found really helpful was the education side and...I realised I was suffering from depression because I didn't have work as a distraction, and I didn't have my family with me as a distraction. So, you know, your true emotions started to seep out really.

#### DISCUSSION

While evidence for the psychological impact of exposure to morally injurious experience is growing, <sup>5</sup> little is known about the effect such experiences and their resulting distress can have on an individual's family life or occupational functioning. In this study, we aimed to explore the impact of exposure to military-related trauma and PMIEs on UK veterans familial and work-place functioning as well as their perceived support needs. We identified three key themes relating to the various (maladaptive) coping strategies employed by veterans to manage their event-related distress, the secondary impact such strategies had on their familial and working lives and views of the (need for) support for such psychological difficulties.

The majority of veterans described experiencing substantial psychological distress following the challenging military event, which they struggled to share with others; yet those who experience PMIEs found disclosure especially difficult due feelings of intense guilt, shame and concerns that they would be seen negatively by family members and colleagues. We found that social withdrawal was common, particularly following PMIEs, which is consistent with previous studies, 15 17 and that withdrawal often contributed to a belief that others did not care. This in turn could exacerbate veterans' distress and contribute towards risktaking, self-harm or aggressive behaviours which, in turn, worsened feelings of guilt and shame. By highlighting this cyclical and interactive process, our findings potentially contribute towards conceptual clarification of the broader impact moral injury can have on functioning. This study also found that employed veterans often used their work as an avoidance strategy to avoid thinking about their distress or as a means to atone for transgressive acts. Intent focus on work has been found to be a commonly used (maladaptive) coping strategy following a range of traumatic events by previous studies, 18 19 although the aspect of atonement due to feelings of guilt and shame may be particularly prevalent in cases of moral injury and warrants further investigation.

A second key theme related to the perceived impact of exposure to the veteran's psychological distress on others. Where veterans withdrew from loved ones, this was reportedly highly distressing for family members who were thought to often internalise the reasons for this behaviour; while veteran risk-taking and aggressive behaviours at home and in the workplace created a tense, volatile environment that was difficult for others to navigate. This is consistent with the broader literature on post-trauma adjustment and reflects a serious concern as spouses and children of those with PTSD have been found to experience lower marital satisfaction, poorer quality of life and secondary mental health difficulties of their own. 9 11 20 To date, research examining familial experiences of exposure to an individual with moral injury is lacking. This is a considerable gap in the literature and, in light of this study's findings, a first-hand investigation of how spouses and children may be adversely impacted by moral injury is needed. In the workplace, veterans exposed to PMIEs experienced occupational difficulties such as interpersonal problems, including problems with authority figures especially following within-ranks betrayal PMIEs. Securing employment and establishing financial stability is a key part of a successful transition

# Original research

from the military, and a useful adjunct to emerging treatments for morally injured veterans (eg, Adaptive Disclosure<sup>21</sup>) may be to address issues surrounding barriers to long-term employment (ie, coping strategies to facilitate engagement with authority figures, skills to manage workplace triggers).

A final key theme related to the need for support following challenging military events. Particularly following morally injurious experiences, clinicians considered that support to help veterans disclose the event to families could be helpful and destigmatising, therapy for spouses themselves, and accessible guidance for help children to better understand how their military parent may be feeling would be beneficial. Additional research is needed to explore how to best support the families of those experiencing moral injury-related mental health problems. It is possible that providing targeted advice and support, such as engaging the family in treatment and providing psychoeducation, may improve both veteran and familial coping. It may be particularly cost-effective to offer remote or online treatments to facilitate access to support for the families of those with moral injury-related mental ill health. Cost-effective online treatments have been developed to provide support and guidance to the families and carers of patients with a range of mental health problems. 22 23 The development of a similar frontline approach for those affected by moral injury may be especially beneficial given the pervasive impact such experiences can potentially have on family functioning.

In terms of support in the workplace, veterans reported being unable to raise concerns about the ethical/moral ramifications of PMIE with colleagues at the time of the event could reflect a significant obstacle. Research in healthcare professional samples suggests that supportive discussions with senior colleagues who share their own workplace difficulties can help juniors to reflect on their own challenges and mitigate feelings of shame.<sup>24</sup> It is possible that additional predeployment preparation about the ethically challenging decisions personnel may face and clarifications of the rules of engagement, as well as a tailored review following a PMIE, may safeguard against moral injury-related distress. However, further research is needed to explore the role personnel reviews, briefings, training and guidance may play in moral injury. Even when veterans experienced mental health difficulties following the challenging military event, many were concerned that disclosure of psychological problems could jeopardise their employment—a common barrier to formal help-seeking across both military and civilian samples.<sup>25-27</sup> Where formal help was sought, a sympathetic supervisor or staff in occupational health who referred them to military-related mental health service was felt to have been beneficial. As those who have positive initial experiences in first seeking help and engaging with a psychological service are more likely to do well, <sup>28</sup> this finding highlights the continued need for appropriate training for occupational health staff and line managers of those at high risk of workplace trauma exposure.

This study has several strengths and weaknesses. Among the strengths was the inclusion of veterans who had experienced a wide range of challenging events—including morally injurious and non-morally injurious traumatic incidents—and clinicians with a range of qualifications (eg, nurse, psychiatrist, clinical psychologist) and experiences of providing patient care. Participation in the present study was anonymous and confidential, which may also have facilitated disclosure of veteran and clinician lived experiences.<sup>29</sup> Among the weaknesses is the convenience sampling strategy, the limited diversity of the sample (eg, all veterans were male, the majority served in the British Army) and the lack of diagnostic data about participants' mental

health. Currently, the majority of existing moral injury literature includes predominantly male participants from military samples<sup>5</sup> and additional research is needed to better understand whether expressions of moral injury may differ between male and female veterans. The requirement for clinicians to have provided treatment to a patient who has experienced a PMIE within the last 6 months may have excluded clinicians who were less experienced in the identification and treatment of moral injury-related mental health problems. Greater demographic diversity is recommended in future studies. Finally, the assignment of participants to moral injury, 'mixed' or trauma groups was also determined by independent researcher ratings and a validated tool for detecting moral injury would be helpful in making this distinction for future research in the UK AF.

Nonetheless, the results of this research contribute to the literature in several meaningful ways. First, these findings highlight the perceived impact exposure to morally injurious and non-morally injurious traumatic events can have on familial functioning. This is an area that has received extremely limited research attention to date and indicates a need to comprehensively screen for the impact of moral injury on patient daily functioning that goes beyond just an assessment of psychological symptoms. Second, this study offers practical suggestions to that could be beneficial in supporting the family members of those affected by challenging military events, such as moral injury. It is possible that providing targeted advice and support, such as engaging families in treatment, facilitating PMIE disclosure safely in a way that does not negatively impact on relationships and providing psychoeducation about moral injury and its consequences, may improve both veteran and familial coping. In doing so, this study highlights the need to incorporate the views of family members in future studies of those suffering with moral injury-related distress. Finally, this study found that challenging events during service could have profound effects on one's ability to function in the workplace as well as the importance of accessible (in)formal support. While no manualised treatment for moral injury has been developed, a useful adjunct to emerging treatments for morally injured veterans may be to address issues surrounding barriers to long-term employment. Such efforts are likely to result in meaningful changes to the care and support available to those who have been affected by morally injurious events in their line of work.

Twitter Victoria Williamson @vwilliamson\_psy

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#### ORCID iD

Victoria Williamson http://orcid.org/0000-0002-3110-9856

#### **REFERENCES**

- 1 Litz BT, Stein N, Delaney E, et al. Moral injury and moral repair in war veterans: a preliminary model and intervention strategy. Clin Psychol Rev 2009;29:695–706.
- 2 Farnsworth JK, Drescher KD, Evans W, et al. A functional approach to understanding and treating military-related moral injury. J Contextual Behav Sci 2017;6:391–7.

- 3 Williamson V, Greenberg N, Murphy D. Impact of moral injury on the lives of UK military veterans: a pilot study. BMJ Mil Health 2020;166:302–6.
- 4 Williamson V, Stevelink SAM, Greenberg N. Occupational moral injury and mental health: systematic review and meta-analysis. Br J Psychiatry 2018;212:339–46.
- 5 Griffin BJ, Purcell N, Burkman K. Moral Injury: An Integrative Review. J Trauma Stress (Published Online First: 28 January 2019).
- 6 Murphy D, Shevlin M, Pearson E, et al. A validation study of the International trauma questionnaire to assess post-traumatic stress disorder in treatment-seeking veterans. Br J Psychiatry 2020;216:132–7.
- 7 Murphy D, Busuttil W. Understanding the needs of Veterans seeking support for mental health difficulties. J R Army Med Corps 2019:iramc-2019-001204.
- 8 Burdett H, Fear NT, MacManus D, et al. Unemployment and benefit claims by UK veterans in the new millennium: results from a record linkage study. Occup Environ Med 2019:76:726–32.
- 9 Leen-Feldner EW, Feldner MT, Knapp A, et al. Offspring psychological and biological correlates of parental posttraumatic stress: review of the literature and research agenda. Clin Psychol Rev 2013;33:1106–33.
- 10 Christie H, Hamilton-Giachritsis C, Alves-Costa F, et al. The impact of parental posttraumatic stress disorder on parenting: a systematic review. Eur J Psychotraumatol 2019:10:1550345.
- 11 Hershkowitz M, Dekel R, Fridkin S, et al. Posttraumatic stress disorder, parenting, and marital adjustment among a civilian population. Front Psychol 2017;8:1655.
- 12 Taylor S, Wald J, Asmundson GJG. Factors associated with occupational impairment in people seeking treatment for posttraumatic stress disorder. Can J Commun Ment Health 2006:25:289–301.
- 13 Williamson V, Murphy D, Stevelink SAM, et al. The impact of trauma exposure and moral injury on UK military veterans: a qualitative study. Eur J Psychotraumatol 2020;11:1704554.
- 14 Stein NR, Mills MA, Arditte K, et al. A scheme for categorizing traumatic military events. Behav Modif 2012;36:787–807.
- 15 Frankfurt S, Frazier P. A review of research on moral injury in combat veterans. Military Psychology 2016;28:318–30.
- 16 Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol* 2006:3:77–101.
- 17 Nash WP, Marino Carper TL, Mills MA, et al. Psychometric evaluation of the moral injury events scale. Mil Med 2013;178:646–52.

- 18 Badour CL, Blonigen DM, Boden MT, et al. A longitudinal test of the bi-directional relations between avoidance coping and PTSD severity during and after PTSD treatment. Behav Res Ther 2012;50:610–6.
- 19 Matthews LR, Harris LM, Cumming S. Trauma-Related appraisals and coping styles of injured adults with and without symptoms of PTSD and their relationship to work potential. *Disabil Rehabil* 2009;31:1577–83.
- 20 Levin AP, Kleinman SB, Adler JS. Dsm-5 and posttraumatic stress disorder. J Am Acad Psychiatry Law 2014;42:146–58 http://www.ncbi.nlm.nih.gov/pubmed/24986341
- 21 et alLitz BT, Lebowitz L, Gray MJ. Adaptive disclosure: a new treatment for military trauma, loss, and moral injury. New York::The Guildford Press, 2017. Available: https://books.google.co.uk/books?hl=en&lr=&id=w20sDwAAQBAJ&oi=fnd&pg= PP1&dq=Adaptive+Disclosure%3B+Litz+et+al.,+2017&ots=PuKBQC8yBg&sig= Pm54\_VyKSnadr80KdsrlhvgEiK4#v=onepage&q=Adaptive Disclosure%3B Litz et al.%2C 2017&f=false
- 22 Gleeson J, Lederman R, Herrman H, et al. Moderated online social therapy for carers of young people recovering from first-episode psychosis: study protocol for a randomised controlled trial. *Trials* 2017;18:27.
- 23 Sellwood W, Barrowclough C, Tarrier N, et al. Needs-Based cognitive-behavioural family intervention for carers of patients suffering from schizophrenia: 12-month follow-up. Acta Psychiatr Scand 2008;104:346–55.
- 24 Miles S. Addressing shame: what role does shame play in the formation of a modern medical professional identity? BJPsych Bull 2019:1–5.
- 25 Williamson V, Greenberg N, Stevelink SAM. Perceived stigma and barriers to care in UK armed forces personnel and veterans with and without probable mental disorders. BMC Psychol 2019:7:75.
- 26 Iversen AC, van Staden L, Hughes JH, et al. The stigma of mental health problems and other barriers to care in the UK armed forces. BMC Health Serv Res 2011:11:31.
- 27 Haugen PT, McCrillis AM, Smid GE, et al. Mental health stigma and barriers to mental health care for first responders: a systematic review and meta-analysis. J Psychiatr Res 2017;94:218–29.
- 28 Dixon LB, Holoshitz Y, Nossel I. Treatment engagement of individuals experiencing mental illness: review and update. World Psychiatry 2016;15:13–20.
- 29 Greenfield TK, Midanik LT, Rogers JD. Effects of telephone versus face-to-face interview modes on reports of alcohol consumption. *Addiction* 2000;95:277–84.