Caring for the carers: a COVID-19 psychological support programme

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ABSTRACT

The outbreak of COVID-19 and the subsequent pandemic brought unprecedented worldwide challenges born out of a rapidly escalating health and economic crisis. From emergency planners to healthcare workers on the front line, and everyone in between, the pandemic, and the uncertainty surrounding it, was likely to become a significant stressor, one with no immediate solution but with the potential to cause enduring distress beyond its conclusion. The UK Defence Medical Services recognised the need to provide an evidence-based programme of care intended to support personnel transitioning from assisting the national response back to normal duties. This was informed by a narrative review that targeted literature exploring strategies for supporting the mental health and well-being of healthcare workers during 21st-century infectious disease outbreaks. The literature identified the experiences most likely to cause enduring distress, which comprised morally challenging decisions, vulnerability, death and suffering, professional and personal challenges, and expectations. The opportunity to find meaning in these experiences, by discussing them with peers who share a contextual understanding, is important to limit the longer-term psychosocial impact of such events. This paper will discuss the design considerations and planned implementation strategy of the Recovery, Readjustment and Reintegration Programme to limit the incidence of distress or longer-term mental ill health among military personnel.

Key messages

- A significant number of healthcare workers are likely to experience some form of psychological outcome following their role in supporting the COVID-19 response.
- There is a need for strong visible leadership, peer support and legitimised time for individuals to reflect and find meaning in their experiences.
- The Recovery, Readjustment and Reintegration Programme provides a formal opportunity for reflective discussion, which enables coping and promotes help-seeking.
- Discussion of shared experiences should also recognise the positive impact of individuals' personal contribution to the COVID-19 response.

BACKGROUND

The emergency response to contain the spread of COVID-19, from its origins in China,[1] created an unprecedented need for human behaviour to dramatically change across the globe. Despite the implementation of governmental guidelines and strict constraints on movement over the last year, the numbers of new cases and daily deaths, reported by every news channel, make COVID-19-related headlines inescapable from human consciousness. Reports of distress and data from recent widespread disease outbreaks suggest that significant numbers of healthcare workers (HCWs) responding to COVID-19 would experience some form of adverse psychological outcome.[2] Indeed, the longer the pandemic ensues, the greater the potential for the emotional toil to impact personnel's well-being.[3]

Job strain, characterised by high demands and low control,[4] and work-related stress, defined by the Health and Safety Executive as *'the adverse reaction to excessive pressures or demands placed upon individuals'*,[5] increase the risk of suffering with mental health disorders, higher staff turnover and presenteeism.[6 7] The latter relates to staff remaining in work despite being unwell. This poses a particular concern for those in safety critical roles, including HCWs delivering life-saving interventions. However, the normal mechanisms by which individuals would deal with potentially stressful situations, often through social gatherings of family and friends, continue to be denied due to enforced social distancing. Indeed, this extended period of restricted human contact is likely to render individuals more susceptible to the negative psychosocial impact of a particular stressor.[8]

The UK Defence Medical Services (DMS) had been tasked with providing support to the UK NHS. Military leaders, aware of their moral and legal duties to support their staff, required a support process that would enable personnel to more effectively cope with their transition back to normal duties. Previous UK Armed Forces research has emphasised the need for a carefully managed transition from an area of high operational tempo to a steady state life back at home, detailing the pitfalls.[9] Indeed, a process called psychological decompression was introduced by many nations to enable military personnel to transition from a combat environment to life back at home.[10] This would often take place at a third location to promote a physical separation between the battlefield and family life.[11] It aimed to provide the space and opportunity for personnel to share their experiences with peers in a relaxed and cohesive atmosphere and to feel more able to seek help should that be necessary. However, the benefits of third location decompression are inconclusive. Despite certain components of the decompression process being regarded positively by participants, namely being among peers who understood what they had experienced,[12] improving their attitude to seeking help[13] and providing a reduced pace of activity to enhance relaxation[14] prior to being reunited with their family and friends, there remains little evidence that it improves an individual's ability to readjust after the deployment.[9]

DETERMINING WHAT IS ALREADY KNOWN

In order to inform the establishment of a programme that would enable a seamless transition from COVID-19-facing work to normal duties, a synthesis of evidence was undertaken focusing on relevant published literature. This narrative review targeted literature that explored strategies for supporting the mental health of HCWs during the pandemics and epidemics of the 21st century. Electronic literature databases, MEDLINE, PsycINFO and Web of Science, were used with the following search terms: *'pandemic'*, *'epidemic'*, *'COVID-19'*, *'SARS'*, *'MERS'*, *'Ebola'*, *'mental health'*, *'healthcare staff'*, *'medical staff'*, *'support'* and *'intervention'*. A study was deemed eligible for inclusion if it was published in a peer-reviewed journal within this century and was written in

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English. The search strategy initially yielded 323 papers. Those that focused on anything other than the impact on HCWs of caring for patients during an infectious disease outbreak were excluded. This reduced the number of papers included in the review to 17.

IMPACT OF CARING DURING 21ST-CENTURY INFECTIOUS DISEASE OUTBREAKS

Since the turn of the century there have been outbreaks of severe acute respiratory syndrome (SARS), Middle East respiratory syndrome (MERS), influenza, Ebola and COVID-19, and the experiences and lessons learnt from each have been summarised chronologically and are outlined in Table 1.

SARS and MERS

A cross-sectional study of 652 HCWs involved in the 2002 SARS pandemic described 68% as having high levels of distress associated with fear of contagion, inadequacy of personal protective equipment, and feelings of powerlessness, self-doubt and guilt.[15] They were also reported as having poor perceived level of support, feeling undervalued, ambiguous policies and lack of opportunity for feedback to seniors. The authors noted that support, effective communication and feedback enabled staff to recognise post-traumatic growth, with a new appreciation for life and relationships, revised priorities for their futures and a more balanced view of their contribution to the response effort.

Providing care within this environment was shown to cause enduring stress, burnout and absenteeism in HCWs; however, effective leadership emerged as a key factor in organisational resilience.[16] Leaders were encouraged to discuss stressors and facilitate meaning-based coping for unresolved issues, for example, fear of contagion, interpersonal isolation, treating sick colleagues and the perceived stigma associated with caring for infectious patients.[16] The provision of resources that facilitate reflection in this way and the delivery of practical interventions demonstrate tangible organisational support.[17 18] Indeed, lower levels of chronic stress were found in those who felt effectively prepared and supported throughout the pandemic and greater in those using avoidance and self-blame.[16 17] While it is acknowledged that HCWs tend to be motivated by a sense of obligation, a lack of trust and goodwill towards those employers perceived not to listen, or who did not acknowledge employees' contributions, was reported to be a clear barrier to staff retention.[16]

A study of 941 nurses during the MERS outbreak found that 66% described frustrations about increasing workload and administrative burden, inadequate resourcing and changing directives.[19] Inconsistent messaging and ineffective communication by leaders were described by 21% of participants, combined with perceptions they had been taken advantage of by their employers. Despite many nurses indicating the experience was positive due to having established close personal bonds with coworkers, others felt undervalued, unappreciated and undercompensated for the risks they were taking. The authors noted a need for an integrative support network and clear, consistent communication from leaders. A further study surveyed 769 HCWs up to 26 months after the SARS outbreak and reported significantly higher levels of burnout, psychological distress and post-traumatic stress disorder when compared with a control group.[20] The study recommended effective moral and psychological support among peers with programmes enduring beyond the duration of the incident.

Similar concerns were identified among 1031 HCWs during the MERS outbreak. Among these were the risk of contracting the virus or sense of inevitability about doing so, fear of infecting family members or sensing their avoidance, feeling standard precautions were unsafe and concerns about insufficient resources and preparedness.[21] This study recommended a leader-led model in addressing these concerns, which was echoed by others.[18 22]

Influenza

The experiences of 469 front-line HCWs during the influenza A/H1N1 virus outbreak were explored and found that 56.7% described moderately high anxiety relating to infection risk for themselves, family and friends.[23] Studies found the degree of worry was associated with the clarity and consistency of information provided by managers.[23–25]

Ebola

Following the 2014 outbreak of Ebola in West Africa, the experiences of 35 HCWs were explored.[26] Several themes defining their distress were identified, including hypervigilance and being less trusting of others, grief, loneliness, feeling stigmatised by their community, frustrations associated with constraints placed on patients' access to care, and feeling unable to comfort patients.[26] The authors recommended an environment be created that promotes tools for managing stress and grief, which must endure beyond the immediate crisis. A study of 51 UK medical staff involved in this Ebola response added the need for readjustment after the response to the familiar stressors of caring during an infectious disease outbreak.[27] The study emphasised the importance of clear communication from leaders, organisational recognition, team support, highlighting the positive benefits from their contribution and a formalised follow-up post response. In depth interviews of 14 members of the UK DMS recently returned from the Ebola response highlighted a range of stressors such as fear, uncertainty, ethical dilemmas and poor communication.[28] Study participants described the need for strong visible leadership, peer support and discussion of shared experience, with recognition of the positive impact of their contribution.

COVID-19

The impact to date of delivering care during the COVID-19 pandemic has also been explored and informed contextually relevant mitigation strategies. One study recommended that leaders designate well-being champions and facilitate peer points of contact, while encouraging clinicians to discuss vulnerability and the importance of protecting one's emotional health.[3] A further study identified that a range of morally challenging decisions may arise during the COVID-19 response, which could lead to psychological distress among HCWs.[29] Recommendations focused on leader-led interventions, developing strong team cohesion and promoting help-seeking. Following the crisis, leaders were recommended to set time aside within working hours to reflect on, and learn from, their experiences, with clear sign-posting available for those who require further assistance.[29 30]

KEY FINDINGS

A thematic analysis of the reviewed literature identified five main issues that HCWs continued to find distressing after an infectious disease outbreak response was concluded. These comprised morally injurious experiences, which include *'perpetrating, failing to prevent, bearing witness to and learning about acts that transgress deeply held moral beliefs and expectations'*.[31] Such experiences may lead to strong emotions such as guilt, shame, anger and disgust. Despite moral injury not being a mental illness, the significant

Table 1 Summary of findings

Author	Country	Participants	Findings
Maunder *et al*[16]	Canada	Narrative review of SARS lessons learnt	*Main stressors:* fear of contagion, a perceived risk of infecting their children, family health status, treating colleagues, stigma, interpersonal isolation, burnout, depression and anxiety up to two years after the outbreak. Leaders encouraged to discuss stressors and facilitate meaning-based coping for unresolved issues.
Tam *et al*[15]	Hong Kong	652 HCWs: SARS	*Main stressors:* fear of death and disease, risk to self and infecting families, distress at HCWs becoming infected, powerlessness to support colleagues, guilt for surviving, inadequate protective measures, ambiguous infection control policies, lack of appreciation, poor communication, public's high expectations, doubts about self-efficacy, lack of control and high workload. *Positive impacts:* improved relationship with colleagues, greater value for family, fulfilled ambition and greater empathy. Through support, effective communication and feedback, leaders encouraged to facilitate staff exploration of the positive aspects of the outbreak, such as their contribution.
Maunder[17]	Canada	1557 HCWs: SARS	*Main stressors:* fear and hypervigilance of their own symptoms, risk of contaminating family and providing care if they became unwell, isolation from peers and reduced informal support networks, stigma, unfamiliar tasks, inadequate support, value of role and comparison between essential and non-essential staff, increased workload, difficult communication and reduced interpersonal contact, uncertainty, scrutiny by the public and avoidance of social situations. Leaders encouraged to give clear and effective communication, to provide resources that facilitate reflection on stressors faced during the outbreak and deliver practical interventions that demonstrate clear support from the organisation.
Wong *et al*[18]	Hong Kong	466 HCWs: SARS	*Main stressors:* vulnerability, loss of control, health of self, contagion. Maladaptive coping identified, including self-blame, denial, substance use, behavioural disengagement and self-distraction. Positive coping strategies included acceptance, active coping, positive reframing, emotional support, consistent communication, tackling interpersonal isolation and promoting peer support.
Bergeron *et al*[19]	Canada	941 HCWs: SARS	*Main stressors:* fear of contagion and infecting family, coworkers becoming infected, staff shortages, workload, management taking advantage of staff and being unsupportive, uncertainty, ineffective communication, inconsistent resource allocation and lack of professional recognition, ambiguous infection control measures and protocols, lack of emotional support and reassurance, stigma, isolation and avoidance of social situations. *Positive impacts:* increased sense of cohesion, honing nursing skills, challenging and exciting opportunities, institutional and global learning, opportunities for gaining insight into policy and professional development. Leaders should use clear communication and an integrative support network to provide staff the opportunity to learn at the professional, personal and institutional level.
Maunder *et al*[20]	Canada	769 HCWs: SARS	*Main stressors:* fear of contagion, concerns for family, interpersonal isolation and avoidance, perceived stigma, working outside of comfort zone and adequacy of training, moral support and self-blame. Moral and psychological support in the context of institutional relationships and long-term support programmes were recommended. Leaders should promote adaptive coping through problem solving, seeking support and positive reappraisal.
Abolfotouh *et al*[21]	Saudi Arabia	1031 HCWs: MERS	*Main stressors:* fear of contagion, feeling unsafe using standard precautions, fear of infecting family, avoidance of social situations, being overwhelmed by regulations, increased workload and insufficient staffing, concerns about policies and about media portrayal. Leaders should proactively address the range of staff concerns raised during the outbreak which may otherwise lead to physical and mental exhaustion.
Khalid *et al*[22]	Saudi Arabia	150 HCWs: MERS	*Main stressors:* fear of contagion, seeing colleagues unwell, infecting family or friends, hypervigilance of symptoms, hypervigilance/concentration at work, death, uncertainty about pandemic end, lack of treatment, media coverage, emotional exhaustion, conflict between duty and own safety, staff shortage, PPE, seeing colleagues stressed/afraid, fatigue. Recommendations made for recognition from management, family support, positive attitude within workplace, consistent communication and availability of equipment/guidelines.
Goulia *et al*[23]	Greece	469 HCWs: A/H1N1	*Main stressors:* fear of contagion and impact on functional ability, fear about family's health, stigma and social isolation, planned absenteeism despite sense of duty, emotional exhaustion, overburdened healthcare system, poor communication and media scrutiny. Staff anxiety was moderated by the clarity and consistency of information provided by leaders.
Ives *et al*[24]	UK	64 HCWs: influenza pandemic	*Main stressors:* fear, risk to self, mortality, introducing risk to family, balancing duty towards the common goal and caring for family, protective equipment concerns, lack of reciprocity of loyalty, feeling undervalued, lack of support for ethical dilemmas such as resource allocation and fear of subsequent litigation, insufficient training and extended roles, lack of direction and inconsistent information. In order to tackle absenteeism, leaders should reciprocate staff efforts, encourage discussion of stressors arising during the outbreak and listen to their needs.
Matsuishi *et al*[25]	Japan	1625 HCWs: H1N1 influenza	*Main stressors:* contagion, wider implications of becoming ill, infecting family, infection while commuting, exhaustion and increased workload, avoidance, isolation, inconsistent information, perceived lack of protection by the organisation. Recommendation for rapid sharing of accurate information.
McMahon *et al*[26]	USA	35 HCWs: Ebola	*Main stressors:* fear, hypervigilance, undermined trust within health facilities and wider community, inability to bond with patient and support relatives, loneliness and isolation, grief, sadness and stigma. Leaders should create an environment that promotes tools for managing stress and grief, with support continuing in the months after the crisis.
Rubin *et al*[27]	UK	51 HCWs: Ebola	*Main stressors:* fear of contagion, death and suffering, delivering bad news, realisation of risk, colleagues becoming unwell, guilt and worry about how the family will cope, guilt about not doing more, censoring information for families, bureaucracy and loss of motivation after medical response to the outbreak. *Positive impacts:* moral reasons for caring, excitement of challenge, professional development, tangible impact of work, messages of thanks and camaraderie. Recommendations were made for clear communication from leaders, recognition from the organisation, highlighting the positive benefits from staff contributions and a formalised follow-up post response.

Continued

Table 1 Continued

Author	Country	Participants	Findings
Lamb[28]	UK	14 military HCWs: Ebola	*Main stressors:* fear of the unknown and balancing risk, concerns about care standards, desire to give more, desire to bond with patient, difficulty in showing compassion, sick children, uncertainty about treatment pathways, ethical concerns about resource management. These were mitigated by peer support, strong leadership, having a common purpose, making a difference, having confidence in training and supervision. Leaders should be clearly visible, enable peer support and discussion about the shared experience and the positive impact of their contribution.
Billings *et al*[30]	UK	Editorial about supporting staff during COVID-19	Leaders should provide opportunities for staff to talk about their experiences in order to enhance support and social cohesion.
Dewey *et al*[3]	USA	Narrative review of COVID-19 lessons learnt	*Main stressors:* vulnerability and emotional health. Leaders should monitor clinician wellness and provide the opportunity for them to discuss vulnerability and the importance of protecting their emotional health.
Greenberg *et al*[29]	UK	Narrative review of challenges of COVID-19	*Main stressor:* potentially morally injurious experiences. Leader-led interventions should be introduced to help staff make sense of the morally challenging decisions being made, including setting aside time to reflect and learn from their experiences.

HCWs, healthcare workers; MERS, Middle East respiratory syndrome; PPE, personal protective equipment; SARS, severe acute respiratory syndrome.

distress, negatively altered self-identity and self-worth that follow may affect daily functioning and lead to the development of a mental health disorder, such as depression or post-traumatic stress disorder. There is also an anxiety and fear associated with operating in a highly infectious environment. This sense of vulnerability, while understandable and usually proportionate, may lead to individuals experiencing heightened stress levels for protracted periods with insufficient downtime to truly return to a resting state. Personnel might also experience compassion fatigue, which is a state of tension that might develop after repeated exposure to the death and suffering of others and their incessant desire and actions in attempting to relieve this suffering.[32] Loss is always an emotive subject but is often in a relatively controlled environment that permits sufficient preparation. An individual would usually have enough time afterwards to grieve. It is hoped that the majority of personnel gain significant pride from the unique personal and professional challenges this response presents; however, there are likely to be many that experience frustration and anxiety stemming from a perceived lack of control or influence. Despite there being some potential difficulties within this transition, discussion is an ideal opportunity to reflect on any post-traumatic growth that may develop following exposure to highly challenging situations.[33]

A nation's military forces are ideally placed to deliver emergency assistance during a crisis because of their ability to plan and resource a rapid, coherent and coordinated response. During a health crisis there is an overwhelming motivation, fuelled by a strong sense of duty, for clinical practitioners to help.[21 24] However, there are many consequences to their willingness and ability to offer enduring support. Lessons from this narrative review, combined with recommendations from the UK Psychological Trauma Society (2014) guidance on supporting trauma-exposed organisations,[34] provided a contextually relevant model to underpin the development of a psychological support programme entitled the Recovery, Readjustment and Reintegration Programme (R3P).

R3P DESIGN AND DELIVERY

A one-day R3P will form part of a graduated return to *'normal'* or more recognisable shift patterns, either between each potential wave that witnessed a significant increased workload and/or after the outbreak to formally draw a close to the response. An example programme structure can be found in online supplemental file 1. The one-day duration is a pragmatic balance between realising its intended effect and the likelihood of being achieved within the increased workload associated with a military unit's return to *'normal'* functioning. Therefore, this timeframe can be adapted to suit the context of each organisation. The programme aims to celebrate achievements, promote continued networking, manage expectations and provide a safe space to discuss and make sense of the experience.

Box 1 Summary of *'prevent'* interventions

'Prevent' interventions: delivered in preparation for military response, comprising the following:

- A series of briefings delivered by leaders, which are explicit about the realities of the role.
- Leader-led discussions about clinical challenges.
- Leader-led discussions about moral and ethical challenges.
- Leader-led (in particular junior leader-led) strategies to foster team cohesion, horizontally between colleagues and vertically between colleagues and leaders.
- Enabling a work structure that uses a buddy–buddy system, team members paired up at the start of shifts to monitor welfare.
- Enabling a structure where leaders facilitate supervision, including a continued discussion about clinical, moral and ethical challenges.
- A leader-led stigma campaign and enabling access to a range of positive well-being interventions.

Box 2 Summary of *'detect'* interventions

'Detect' interventions: delivered throughout the period of the response, comprising the following:

- Comprehensive supervision by leaders, ensuring healthy shift patterns and adequate sleep and meaningful activity away from the shift.
- Regular supervision which allows a continuing discussion about clinical, moral and ethical challenges.
- An ongoing leader-led stigma campaign, enabling access to a range of positive well-being strategies that might target sleep and anxiety in particular.
- Access to military or NHS (for civilian colleagues) peer-led support networks in the event of an incident that caused significant distress.
- Access to a welfare team.

Opening remarks by the head of the organisation or senior member of the executive, either in person or by video link, will communicate a strong message of strategic support for personnel's well-being. It will also help to standardise the message of thanks across each unit or region for everyone's invaluable contribution to the national emergency response, irrespective of their role. Most importantly, R3P would be leader-led, not medically led, providing a strong message of organisational support. The associations between positive mental health and perceived stronger leadership and group cohesion have been identified in a number of studies of UK Armed Forces' personnel working on demanding operations and exercises.[35 36] The programme would follow and build on other leader-led interventions recommended throughout the COVID-19 response, much of which fall under the term *'behavioural health leadership'*, focusing on mental health-related behaviours such as promoting healthy sleep, encouraging the use of resilience skills and providing peer support.[37] The latter relates to *'prevent'* interventions, which aim to avert the onset of mental ill health, and *'detect'* interventions, which focus on those who have early signs of distress. These interventions are summarised in Boxes 1 and 2.

The day would commence with a general overview of the COVID-19 pandemic, the aims of the UK response, the diverse skills of those involved, their motivations for becoming involved and acknowledging the achievements of all. The commonly occurring causes of enduring distress after exposure to a traumatic event have been arranged into five themes, namely morally challenging decisions, vulnerability, death and suffering, professional and personal challenges, and expectations, which include post-traumatic growth. Each of the five themes provides the basis of small facilitated discussion groups allowing personnel, with a shared contextual experience, to reflect on their thoughts and feelings. Such an opportunity has been associated with a reduced level of psychological stress for those returning from a deployment.[38] These themes and their significance to the programme are outlined in Table 2.

Active participation in the discussion is not mandated, but for those wishing to take a more passive role it is likely that many of the conversations they will hear will resonate with their own experiences. The priority is the provision of a formal opportunity for peers to share their

Table 2 Five R3P themes and their potential discussion points

Theme	Examples of group discussion points
Morally challenging decisions	► Consequence of limited resources, lack of equipment, staff shortages. ► Managing risk: the balance of one's own health with that of patients. ► Delivering a different quality of care, as good as it could be but not good enough. ► Perceptions of end-of-life care and ability to deliver it. ► Wanting to do more for patients and for the national response. ► Dealing with the wishes of patients and family members. ► Guilt associated with an individual leaving their own family, supporting their family while absent and posing a risk on return.
Vulnerability	► Anxiety and fear during the response. ► Realisation of risk to self and thoughts about care pathway. ► Fear of family's vulnerability and of infecting them. ► Hearing about healthcare workers contracting COVID-19. ► Hypervigilance about symptoms and trust in PPE. ► Contagion outside workplace. ► Discomfort of PPE.
Death and suffering	► Dramatic deterioration caused by the illness and the effect on preparedness. ► Sense of powerlessness, acknowledging what was possible to achieve but also what was not. ► Caring for patients and learning their stories. ► Caring for relatives, delivering bad news and facilitating final conversations. ► Relatives unable to be with dying family members. ► Impact on children. ► Connecting laboratory samples to patients. ► Guilt about not doing more, making an impact, being part of a global response. ► Messages of thanks.
Professional and personal challenges	► Camaraderie, openness, inspirational colleagues, sharing common purpose, learning from each other. ► Contribution to global effort. ► The media, public perception, symbols of support. ► Intense workplace, time spent in red zone - tension, emotion. ► Communication within organisation. ► Agreed length of time on task. ► Correct kit, concerns about protecting safety. ► Slow processes and bureaucracy, working conditions. ► Downtime: adequate or inadequate, limited range of things to do, feeling isolated, moral obligation to return to work. ► Not disclosing worrying information to family, providing reassurance, additional worries from home, effect of bad news on families.
Expectations/post-traumatic growth	► Deflation on leaving the team, missing friends, missing the experience. ► Returning to mundane day jobs, sense of unfinished business. ► Others could not possibly understand, people too interested. ► Being avoided by others for fear of contagion. ► Growth at professional level, new skills, experience. ► Growth at personal level, increased confidence, greater appreciation. ► New career options. ► Networking.

PPE, personal protective equipment; R3P, Recovery, Readjustment and Reintegration Programme.

experiences, which might cross one or several of these themes, to develop their own meaningful narrative in which they are not the victim or the perpetrator. It will also enable the creation of new social networks and provide an appreciation of the organisation's support in doing so. Hearing others discuss their feelings will enable less confident participants to still share the benefits of knowing they are not alone in their reactions to a very abnormal situation. While the majority of individuals involved in a stressful situation will suffer no long-term mental health consequences, a significant number may continue to suffer distress.[39] The reviewed literature identified links between an individual's level of resilience and having a more positive and balanced view of themselves, the world around them and the future.[40 41] In this instance, this may be forming a balanced view of their own contribution to the nation's response, acknowledging their positive personal attributes and actions and less rumination around those aspects out of their control, all of which underpin the principles of positive self-esteem.[42] The latter also defines a sense of hope, an essential motivator throughout the response to this pandemic. Should peers cross organisational boundaries then they are encouraged to attend the R3P together. The programme would preferably precede a social event during which networking, reflections and discussions could continue within its relaxed atmosphere; however, this will clearly depend on government guidance at the time.

Therefore, an opportunity to explore the personal meanings behind experiences of supporting the pandemic response, in a supportive environment, is essential to longer-term mental well-being. The R3P aims to enhance the extant postoperational stress management extended to UK military personnel. It would take place once personnel had been formally '*stood down*' from their contribution to the national pandemic response and before any subsequent period of leave. Subsequent waves of the outbreaks, should they occur, could mirror the sequencing of the R3P to establish an ongoing support mechanism.

CONCLUSIONS

The DMS has long recognised the considerable stress under which its personnel work, especially on operations. The chain of command has always endeavoured to mitigate against the stressors they face, whether that be through individual training designed to foster resilience or organisational interventions designed to support personnel's emotional well-being. R3P promotes appraisal and coping processes: problem solving for events within an individual's control, emotion-based coping to enhance support and reduce isolation, and meaning-based coping for events that are unresolved and cause persistent distress. It represents the latest evidence-based iteration of a package of care designed to aid the transition from high tempo operations to the firm base, in this case offering every individual a supportive environment in which to discuss and make sense of their personal experiences. The R3P model may well have applicability to non-military organisations which have been operating at the front line, including HCWs and social care staff.

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REFERENCES

1 World Health Organisation. Pneumonia of unknown cause- China, 2020. Available: https://www.who.int/csr/don/05-january-2020-pneumonia-of-unkown-cause-china/en/ [Accessed 2 Mar 21].
2 Magill E, Siegel Z, Pike KM. The mental health of frontline health care providers during pandemics: a rapid review of the literature. *Psychiatr Serv* 2020;71:1260–9.
3 Dewey C, Hingle S, Goelz E, *et al*. Supporting clinicians during the COVID-19 pandemic. *Ann Intern Med* 2020;172:752–3.
4 Sargent LD, Terry DJ. The moderating role of social support in Karasek's job strain model. *Work & Stress* 2000;14:245–61.
5 Health and Safety Executive. How to tackle work-related stress. A guide for employers on making the management standards work, 2019. Available: https://www.hse.gov.uk/pubns/indg430.pdf [Accessed 2 Mar 21].
6 Khamisa N, Oldenburg B, Peltzer K, *et al*. Work related stress, burnout, job satisfaction and general health of nurses. *Int J Environ Res Public Health* 2015;12:652–66.
7 Leigh-Hunt N, Bagguley D, Bash K, *et al*. An overview of systematic reviews on the public health consequences of social isolation and loneliness. *Public Health* 2017;152:157–71.
8 Rubin M, Evans O, Wilkinson RB. A longitudinal study of the relations among university students' subjective social status, social contact with university friends, and mental health and well-being. *J Soc Clin Psychol* 2016;35:722–37.
9 Jones N, Jones M, Fear NT, *et al*. Can mental health and readjustment be improved in UK military personnel by a brief period of structured postdeployment rest (third location decompression)? *Occup Environ Med* 2013;70:439–45.
10 Fertout M, Jones N, Greenberg N, *et al*. A review of United Kingdom armed forces' approaches to prevent post-deployment mental health problems. *Int Rev Psychiatry* 2011;23:135–43.
11 Hughes JGHH, Earnshaw NM, Greenberg N, *et al*. Use of psychological decompression in military operational environments. *Mil Med* 2008;173:534–8.
12 Wood MD, Adler AB, Bliese PD. Psychological adjustment after combat deployment: decompression at home versus at sea. *Military Behavioral Health* 2018;6:259–70.
13 Garber BG, Zamorski MA. Evaluation of a third-location decompression program for Canadian forces members returning from Afghanistan. *Mil Med* 2012;177:397–403.
14 Lamb D, Withnall RD. A qualitative study to investigate the psychosocial effects of operational deployments on medical emergency response team personnel. *Stress Health* 2021;37:364-377.
15 Tam CWC, Pang EPF, Lam LCW, *et al*. Severe acute respiratory syndrome (SARS) in Hong Kong in 2003: stress and psychological impact among frontline healthcare workers. *Psychol Med* 2004;34:1197–204.
16 Maunder RG, Leszcz M, Savage D, *et al*. Applying the lessons of SARS to pandemic influenza: an evidence-based approach to mitigating the stress experienced by healthcare workers. *Can J Public Health* 2008;99:486–8.
17 Maunder R. The experience of the 2003 SARS outbreak as a traumatic stress among frontline healthcare workers in Toronto: lessons learned. *Philos Trans R Soc Lond B Biol Sci* 2004;359:1117–25.
18 Wong TW, Yau JKY, Chan CLW, *et al*. The psychological impact of severe acute respiratory syndrome outbreak on healthcare workers in emergency departments and how they cope. *Eur J Emerg Med* 2005;12:13–18.
19 Bergeron SM, Cameron S, Armstrong-Stassen M, *et al*. Diverse implications of a national health crisis:

a qualitative exploration of community nurses' SARS experiences. *Can J Nurs Res* 2006;38:42–54.
20 Maunder RG, Lancee WJ, Balderson KE, *et al*. Long-Term psychological and occupational effects of providing Hospital healthcare during SARS outbreak. *Emerg Infect Dis* 2006;12:1924–32.
21 Abolfotouh MA, AlQarni AA, Al-Ghamdi SM, *et al*. An assessment of the level of concern among hospital-based health-care workers regarding MERS outbreaks in Saudi Arabia. *BMC Infect Dis* 2017;17:4.
22 Khalid I, Khalid TJ, Qabajah MR, *et al*. Healthcare workers emotions, perceived stressors and coping strategies during a MERS-CoV outbreak. *Clin Med Res* 2016;14:7–14.
23 Goulia P, Mantas C, Dimitroula D, *et al*. General Hospital staff worries, perceived sufficiency of information and associated psychological distress during the A/H1N1 influenza pandemic. *BMC Infect Dis* 2010;10:322.
24 Ives J, Greenfield S, Parry JM, *et al*. Healthcare workers' attitudes to working during pandemic influenza: a qualitative study. *BMC Public Health* 2009;9:56.
25 Matsuishi K, Kawazoe A, Imai H, *et al*. Psychological impact of the pandemic (H1N1) 2009 on General Hospital workers in Kobe. *Psychiatry Clin Neurosci* 2012;66:353–60.
26 McMahon SA, Ho LS, Brown H, *et al*. Healthcare providers on the frontlines: a qualitative investigation of the social and emotional impact of delivering health services during Sierra Leone's Ebola epidemic. *Health Policy Plan* 2016;31:1232–9.
27 Rubin GJ, Harper S, Williams PD, *et al*. How to support staff deploying on overseas humanitarian work: a qualitative analysis of Responder views about the 2014/15 West African Ebola outbreak. *Eur J Psychotraumatol* 2016;7:30933.
28 Lamb D. Factors affecting the delivery of healthcare on a humanitarian operation in West Africa: a qualitative study. *Appl Nurs Res* 2018;40:129–36.
29 Greenberg N, Docherty M, Gnanapragasam S, *et al*. Managing mental health challenges faced by healthcare workers during covid-19 pandemic. *BMJ* 2020;368:m1211.
30 Billings J, Greene T, Kember T, *et al*. Supporting hospital staff during COVID-19: early interventions. *Occup Med* 2020;70:327–9.
31 Williamson V, Stevelink SAM, Greenberg N. Occupational moral injury and mental health: systematic review and meta-analysis. *Br J Psychiatry* 2018;212:339–46.
32 Laor-Maayany R, Goldzweig G, Hasson-Ohayon I, *et al*. Compassion fatigue among oncologists: the role of grief, sense of failure, and exposure to suffering and death. *Support Care Cancer* 2020;28:2025–31.
33 Jayawickreme E, Blackie LER. Post–traumatic growth as positive personality change: evidence, controversies and future directions. *Eur J Pers* 2014;28:312–31.
34 United Kingdom Psychological Trauma Society. *Traumatic stress management guidance: for organisations whose staff work in high-risk environments*. Leeds: UK Psychological Trauma Society/ European Society of Traumatic Stress Studies, 2014.
35 Jones N, Seddon R, Fear NT, *et al*. Leadership, cohesion, morale, and the mental health of UK armed forces in Afghanistan. *Psychiatry* 2012;75:49–59.
36 Whybrow D, Jones N, Evans C, *et al*. The mental health of deployed UK maritime forces. *Occup Environ Med* 2016;73:75–82.
37 Adler AB, Saboe KN, Anderson J, *et al*. Behavioral health leadership: new directions in occupational mental health. *Curr Psychiatry Rep* 2014;16:484.
38 Greenberg N, Thomas SL, Iversen A, *et al*. Do military peacekeepers want to talk about their experiences? perceived psychological support of UK military peacekeepers on return from deployment. *J Ment Health* 2003;12:565–73.
39 Rubin GJ, Brewin CR, Greenberg N, *et al*. Psychological and behavioural reactions to the bombings in London on 7 July 2005: cross sectional survey of a representative sample of Londoners. *BMJ* 2005;331:606.
40 Thompson E. Resilience and the cognitive triad: associations with psychological well-being. Manchester metropolitan university, 2019. Available: http://e-space.mmu.ac.uk/623903/ [Accessed 20 Apr 20].
41 Mak WWS, Ng ISW, Wong CCY. Resilience: enhancing well-being through the positive cognitive triad. *J Couns Psychol* 2011;58:610–7.
42 Mehta MH, Grover RL, DiDonato TE, *et al*. Examining the positive cognitive triad: a link between resilience and well-being. *Psychol Rep* 2019;122:776–88.

Supplement 1: An example R3P structure

Ser	Time		Comment
1	0900 - 0915	Welcome and Introductions	
2	0915 - 0930	**Video** – Preferably delivered by the head/key member of the organisation to demonstrate strategic support for the programme. This should include major milestones associated with the pandemic, principal achievements and what the package aims to accomplish.	This message standardises expectation management for the programme and particularly the wider appreciation of everyone's contribution.
3	0930 - 0940	Cohort divided into 5 groups and sent to separate areas/rooms Discussion Sessions: 1 – Morally Challenging Decisions 2 – Vulnerability 3 – Death and Suffering 4 – Professional and Personal Challenges 5 – Expectations/Post traumatic growth	Cohorts should comprise a cross-section of rank, gender, profession. A cross-section of personnel should facilitate each session including Padres and civil servants
4	0940 - 1010	Discussion sessions	
5	1010 - 1050	Discussion sessions	
6	1050 - 1130	Coffee break	Encourage discussions between groups
7	1130 - 1200	Discussion sessions	
8	1200 - 1230	Discussion sessions	
9	1230 - 1400	Lunch	Encourage interaction between groups
10	1400 - 1430	Discussion session	
11	1430 - 1500	Summary discussion	Aim to bring all cohorts together – Prompting evidence of a shared experience of, and reaction to, delivering care/support throughout the Covid-19 outbreak.
12	1500 -1530	Self-compassion and closing remarks	Padre lead – This is an opportunity to sign post people to the symptoms of poor coping and to the appropriate 'Treat' domains for those with enduring symptoms of distress.
When social distancing restrictions are no longer in force a social event in the evening would enable further discussions and networking			