Caring for the carers: an evaluation of the recovery, readjustment and reintegration programme (R3P)

Amos Simms¹, D Leightley², D Lamb³

ABSTRACT

Introduction The challenges faced by healthcare workers, not least during the response to the COVID-19 pandemic, have been extensively studied, and concerns continue to be highlighted in relation to their long-term mental health. Identifying the need to support their personnel, a leader-led structured programme of reflection: the recovery, readjustment and reintegration programme (R3P) was designed by the UK Defence Medical Services to mitigate the potential stressors associated with this outbreak and enhance the resilience of the workforce.

Methods 128 military personnel completed an evaluation of R3P. A survey included measures of anxiety before and after the intervention, perceptions of the discussion themes and whether these brought a sense of closure to areas of distress, and attitudes to help-seeking.

Results Most respondents (86%–92%) reported that the five discussion themes either ‘helpful’ or ‘very helpful’, 51% of respondents reported a sense of closure about an issue that had been causing distress and 72% of respondents felt better able to seek help should it be necessary. Evaluating the effect of R3P had on anxiety, a Wilcoxon signed rank test elicited a statistically significant difference in anxiety pre-R3P and post-R3P; Z=−3.54, p<0.001. The median anxiety rating was 3.5 (IQR 4.75, 95% CI 1.25 to 6.00) before undertaking R3P, which decreased to 3 (IQR 4.75, 95% CI 1.00 to 5.75) after undertaking R3P. 39.1% of participants reported decreased anxiety, 18.8% reported increased anxiety and 42.2% reported no change.

Conclusion This evaluation has identified several positive aspects to R3P with many personnel reporting a reduction in anxiety, a sense of closure and increased likelihood of help-seeking. Several participants did report an increase in anxiety and the long-term impact of R3P on mental health and well-being is unclear. Further mixed-methods evaluation incorporating a longer follow-up is required.

INTRODUCTION

The challenges faced by healthcare workers (HCWs) have been extensively studied, and concerns about their long-term mental health continue to be highlighted.¹,² A study of the mental health of UK NHS personnel during the COVID-19 response found the prevalence of common mental health disorders to be higher than in the general population.³

UK Defence Medical Services (DMS) personnel were among those military personnel involved in the national COVID-19 response, many already embedded within the NHS and others drafted in from other areas. Identifying the need to support the mental health of their personnel, a leader-led structured programme of reflection: recovery, readjustment and reintegration programme (R3P)⁴ was designed by the DMS. R3P had two primary aims: to promote meaning-centred coping and to encourage help-seeking. Meaning-centred coping relates to the maintenance and restoration of one’s sense of purpose and meaning.⁵ Meaning has been defined as a sense of coherence, purpose, achievement and existential fulfilment,⁶ and the exploration of meaning could be achieved through reappraisal or acceptance,⁷ plus exposure to other people’s perspectives. Loss of personal meaning following exposure to trauma has a detrimental effect on personal functioning, while finding meaning plays an important part in the recovery process and is a stronger predictor of positive mental health than both emotion-focused and problem-focused coping.⁸

The research underpinning R3P identified themes that were reported by HCWs to generate distress during and after a prolonged period of stress. These themes comprise: vulnerability; death and suffering; professional and personal challenges;
expectations and morally challenging decisions,⁴ the latter being strongly associated with poorer mental health if unresolved.⁹ R3P enables leaders to use these themes as handrails, validating experiences and encouraging personnel to explore their meaning among peers who share a contextual understanding. Finding reflection cause distress. Numerous studies within military populations have identified a significant association between perceptions of leadership and mental health¹¹ and help-seeking,¹² while a study of HCWs during COVID-19 reported the benefits of supportive leadership.¹³ Consistent with recommendations about the implementation of novel interventions in the military,¹⁴ an evaluation was undertaken to establish the efficacy of R3P as a leadership tool to support the mental health of their personnel.

**METHOD**

The evaluation was carried out across six DMS sites during June 2021 where the leadership team had received training on using R3P. On completion of the intervention, those who took part completed a survey. Questionnaires were sent via email to 500 service personnel via the Royal Navy, Army, Royal Air Force, Royal Marines and Royal Marines with a response rate of 19%.

**Table 1 Survey questions**

<table>
<thead>
<tr>
<th>Serial no.</th>
<th>Question</th>
<th>Response options</th>
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<tbody>
<tr>
<td>1</td>
<td>What is your gender?</td>
<td>Male; female; transgender; gender neutral</td>
</tr>
<tr>
<td>2</td>
<td>What is your age? (in years only)</td>
<td>Regular; reservist; civil servant</td>
</tr>
<tr>
<td>3</td>
<td>a. Are you a member of the Armed Forces?</td>
<td>Royal Navy; Army; Royal Air Force; Royal Marines</td>
</tr>
<tr>
<td></td>
<td>b. If you are a regular or reserve member of the Armed Forces, to which service do you belong?</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>What is your profession?</td>
<td>Doctor; nurse; paramedic; CMT/Medic; healthcare assistant; biomedical scientist; physiotherapist; non-clinical support; other</td>
</tr>
<tr>
<td>5</td>
<td>What is your rank/grade?</td>
<td>Drop down list</td>
</tr>
<tr>
<td>6</td>
<td>How long have you been a member of the Armed Forces? (in years only)</td>
<td>Drop down numerical menu; not applicable</td>
</tr>
<tr>
<td>7</td>
<td>Have you had experience of deployed overseas deployments?</td>
<td>Yes; no; not applicable</td>
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For questions 8 and 9—on a scale of 0–10, where 0 is low and 10 is high

<table>
<thead>
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<th>Serial no.</th>
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<tbody>
<tr>
<td>8</td>
<td>How would you rate your level of anxiety or worry, associated with the issues that you faced during the pandemic, prior to attending R3P?</td>
<td>Tick box: 0; 1; 2; 3; 4; 5; 6; 7; 8; 9; 10</td>
</tr>
<tr>
<td>9</td>
<td>How would you rate the importance of peer support in your willingness to engage in the R3P group discussions?</td>
<td>Tick box: 0; 1; 2; 3; 4; 5; 6; 7; 8; 9; 10</td>
</tr>
<tr>
<td>10</td>
<td>How would you rate the usefulness of each discussion group in addressing your experiences during the pandemic?</td>
<td>Tick box: very unhelpful; unhelpful; helpful; very helpful</td>
</tr>
<tr>
<td></td>
<td>a. Morally challenging decisions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Vulnerability</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Death and suffering</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. Professional/Personal challenges</td>
<td></td>
</tr>
<tr>
<td></td>
<td>e. Expectations</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Following reflection during the R3P group discussions, please identify any of your experiences during the pandemic that have been particularly positive:</td>
<td>Free text</td>
</tr>
<tr>
<td>12</td>
<td>Following reflection during the R3P group discussions, please identify any experiences during the pandemic that you found particularly stressful:</td>
<td>Free text</td>
</tr>
<tr>
<td>13</td>
<td>Following the group discussions, do you now feel able to seek further help or support (medical/pastoral/peer) to enable you to better cope with your experiences of the pandemic?</td>
<td>Yes; no; not sure</td>
</tr>
<tr>
<td>14</td>
<td>On a scale of 0–10 (0 is not at all, 10 is extremely), how useful has R3P been in introducing you to people who you can contact should you need additional support?</td>
<td>Tick box: 0; 1; 2; 3; 4; 5; 6; 7; 8; 9; 10</td>
</tr>
<tr>
<td>15</td>
<td>On a scale of 0–10, (0 is poor, 10 is excellent), how would you rate your sense of value from the DMS for your contribution to the pandemic response?</td>
<td>Tick box: 0; 1; 2; 3; 4; 5; 6; 7; 8; 9; 10</td>
</tr>
<tr>
<td>16</td>
<td>On a scale of 0–10 (0 is low, 10 is high), how would you rate your level of anxiety or worry, associated with the issues that you faced during the pandemic now that you have completed R3P?</td>
<td>Tick box: 0; 1; 2; 3; 4; 5; 6; 7; 8; 9; 10</td>
</tr>
<tr>
<td>17</td>
<td>Following the group discussions, do you feel that you have been able to find a sense of closure to one or any of the previous concerns you had that were associated with the pandemic?</td>
<td>Yes; no; not sure</td>
</tr>
<tr>
<td>18</td>
<td>What aspects of R3P do you think could be improved?</td>
<td>Free text</td>
</tr>
<tr>
<td>19</td>
<td>Additional comments</td>
<td>Free text</td>
</tr>
</tbody>
</table>

CMT, combat medical technician; ; R3P, recovery, readjustment and reintegrarion programme.
part were invited to complete a pseudonymised survey. The questions in table 1 assessed how useful the discussion themes were, whether they helped participants achieve a sense of closure and whether R3P promoted help-seeking. A Likert scale aimed to determine whether such reflective discussions alleviated or generated anxiety. Analysis of the quantitative data was carried out using SPSS V.28 and to aid analysis, the Likert scales for anxiety, peer support and feeling valued were grouped into 0–3 (low), 4–7 (medium) and 8–10 (high). The free text replies were analysed using reflexive thematic analysis with the second author carrying out validity checks throughout each stage.15 Prior to data collection, participants provided electronic informed consent for anonymous use of their data.

RESULTS

One hundred twenty-eight members of the DMS undertook an evaluation of R3P. Demographic data and the distribution of personnel reporting reduced anxiety and a sense of closure are presented in table 2. Profession was the only variable in which a statistically significant distribution was reported in both anxiety and closure, with a lower percentage of doctors, dentists and medical assistants reporting a reduction in anxiety; and a lower percentage of doctors, dentists and non-clinical support personnel reporting a sense of closure. Table 2 suggests that the benefits of R3P may be consistent across gender, rank, age and service.

Table 3 details self-reported anxiety pre-R3P and post-R3P. A Wilcoxon signed rank test elicited a statistically significant difference in anxiety pre-R3P and post-R3P; Z = −3.54, p<0.001. The median anxiety rating was 3.5 (IQR 4.75, 95% CI 1.25 to 6.00) before participants undertook R3P, which decreased to 3 (IQR 4.75, 95% CI 1.00 to 5.75) after undertaking R3P. Fifty (39.1%) participants reported decreased anxiety, 24 (18.8%) reported increased anxiety and 54 (42.2%) participants reported no change in score. Table 3 also details the importance of peer support, with 67% identifying this as an important feature of the intervention. On conclusion of R3P, 72% of respondents felt better able to seek help and 47% found the intervention useful in introducing them to further support options. When asked to rate their sense of value within the DMS, only 39% felt highly valued. Analysis not included in this table found that a significantly higher percentage of personnel who reported feeling valued reported lower prelevel and postlevel of anxiety and a greater willingness to seek help. R3P provided 51% of respondents with a sense of closure about an issue that had been causing distress.

Table 4 highlights that most respondents (86%–92%) rated all discussion themes either ‘helpful’ or ‘very helpful’, and for each theme, a higher percentage of personnel reporting that the discussion was helpful also reported reduced anxiety and a sense of closure.
The thematic analysis identified several stressors during the COVID-19 response: feeling unprepared, questioning their clinical competence, poor information from leadership, lack of support, isolation, morally injurious experiences and a fear of the unknown. Positive experiences were professional development opportunities, improved ways of working, increased sense of identity, teamwork, peer support and a new appreciation for life. While participants reported an appreciation for the protected time to reflect, suggested improvements for future programmes included the environment, timing and structure and a need for a greater mixture of ranks and professions to enable a better understanding of others’ perspectives. Negative comments included R3P being rushed, not following the script and ‘being another tick box exercise’. Of note, the four individuals who reported the highest increase in anxiety all reported negative comments about leadership and R3P delivery.

**DISCUSSION**

One of the primary aims of R3P to promote meaning-centred coping was implied, with most participants finding the discussions useful and over half of the sample reporting closure of a stressor due to those discussions. Failure to find closure may reflect the need for further reflection, which emphasises the need for supportive interventions to be woven into the fabric of the organisation, not simply with reactive one-off events. Leaders’ involvement in the discussion is also an important step in reducing avoidance, an essential factor in enhancing psychological resilience. Meaning-centred coping has the potential to stimulate goal-directed value-driven action and further research may establish whether R3P prompted individual or organisational behaviour change. One area in which the development of a balanced meaning may prove beneficial relates to the exposure to morally injurious events, where distress may be caused by the individuals’ inability to integrate their perception of events into a more global meaning and make sense of their experiences. A further benefit to finding meaning is ‘existentially mattering’; being given value and worth, significance and purpose, all of which are within the leader’s gift and have a positive effect on mental health.

Recognising that meaning provides a buffer against anxiety, the statistically significant reduction in anxiety may reflect the sense of closure or through normalising the shared experience. Alternatively, it may reflect comfort in the knowledge of the additional services available or that their leaders have visibly invested time in their well-being. The increase in anxiety in some participants may reflect the breaking down of avoidance and causing participants to reflect on stressful events, or alternatively a reflection of how the intervention is conducted. Generating emotion, if managed well, which would include validating the individual and encouraging help-seeking, is not a negative reflection of this programme. Meaning-centred coping is not a quick fix, and a long-term follow-up would determine whether initial distress led to supportive conversations which then prompted closure.

The study had several limitations. The small sample size limits the generalisability of the positive results, and the timing of the preanxiety and postanxiety scores may lead to recall bias. As an initial evaluation, this was a valuable indicator that participants perceived benefit from the intervention, however, a future study would look in more detail at the changes in anxiety and over a longer follow-up period.

Given the extensive research linking leadership with mental health, the emphasis of R3P in placing leaders at the forefront of the intervention and of the organisation providing legitimised time within the working day appears justified. The thematic analysis suggested that the intervention was seen as a clear investment in the health and well-being of personnel. Furthermore, leaders introducing personnel to the range of support services available, corroborated research stating that visible caring leadership, peer support and clear signposting enabled help-seeking, with most participants reporting they felt able to seek help. The impact of peer support on long-term mental health is also widely acknowledged and was reported as being highly important to most participants within this study. When supported through trauma, an individual may experience post-traumatic growth, and in this case, respondents reported several positive aspects to their role throughout the pandemic. While the implementation of R3P was accompanied by training and support tools, the pace of the rollout, scant available resources and concurrent stressors faced by each team limited the reach to all those responsible for its
delivery. This may have impacted the level of detail provided during the programme, particularly in relation to its structure, timing, content and consistency of signposting, which accounts for several negative comments. Reflecting on this, lessons learnt have already prompted the development of a webinar accessible via an electronic link and standardised instructions which include frequently posed questions.

**CONCLUSION**

This evaluation has identified several positive aspects to R3P with many personnel reporting a reduction in anxiety, a sense of closure and increased likelihood of help-seeking. It has also validated the relevance of the five discussion themes and highlighted their benefit in enabling personnel to reflect and find meaning in their experiences. Given the number of respondents who denied, or were unsure of having reached closure, it was concluded that there is a need for R3P to be an ongoing support tool. The opportunity to reflect among peers is only the start of the process of coping with challenging experiences and leaders should acknowledge their role in encouraging a culture of communication and meaning-centred coping. Recognising that several participants reported an increase in anxiety following R3P, further exploration is required to ascertain whether this relates to the recall of stressful experiences or the way the programme is carried out.

The long-term impact of R3P on mental health and well-being is unclear and further mixed-methods evaluation incorporating a longer follow-up is required. However, the early evidence suggests that the programme does encourage meaningful conversation while conveying a clear sense of value to DMS personnel.

**Contributors** The intervention evaluated in this manuscript was created by DLa and AS, AS acting as the guarantor. DLa advised on the intervention evaluation. AS wrote the first draft, DLe and DLa provided comments and redrafted as required. All authors have seen and approved the final version of this manuscript. AS responded to the decision letter and made all amendments. DLe and DLa reviewed and all approved this resubmission. This submission is part of a NATO personalised medicine special edition.

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**Competing interests** None declared.

**Patient consent for publication** Not applicable.

**Ethics approval** This was deemed to be a service evaluation, ascertaining the utility of a health and well-being support strategy.

**Provenance and peer review** Not commissioned; externally peer reviewed.

**Data availability statement** All data relevant to the study are included in the article or uploaded as supplementary information. Data are available on reasonable request.

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