

## RAPID RESEARCH IN COVID-19 PROGRAMME

Effective interventions to support the resilience and mental health of frontline health and social care staff during a global health crisis and following de-escalation (RECOVER)

### AIMS

We aimed to conduct a high-quality review which systematically and comprehensively brought together evidence relating to the resilience and mental health of health and social care professionals (including those returning to practice or students who start working for the NHS early) during and after a disease outbreak, epidemic or pandemic. We also explored the evidence relating to barriers and facilitators to intervention implementation.

### KEY FINDINGS

- There are hundreds of publications (we found 747 papers) relating to the resilience and mental health of health and social care professionals who work at the frontline during disease outbreaks, epidemics or pandemics. However:
  - A majority of the research papers (72%) are about the *impact* of working in a disease epidemic/pandemic on the mental health of frontline workers.
  - The most common study design (40%) was a staff survey.
  - One-third of the research studies related to the COVID-19 pandemic.
- We did not find any evidence which tells us how well different interventions aimed at supporting the resilience and mental well-being of frontline health and social care professionals work. In particular:
  - Only one study has investigated how well an intervention worked. The evidence in this study was of very low certainty and we cannot say whether the intervention helped or not.
  - No high-quality research studies investigated the effect of interventions.
- We found some limited evidence about factors which might help successful delivery of interventions to improve resilience and mental health in frontline health and social care workers:
  - 16 studies provided some evidence about barriers and facilitators to implementation of interventions. We do not have high confidence in any of the findings from these studies.
- Properly planned research studies to find out the best ways to support the resilience and mental well-being of frontline workers during disease epidemics are urgently required.

## WHAT DID THE STUDY INVOLVE?

We conducted a rapid scoping review (to find all research addressing this topic) and a mixed method Cochrane review (to bring together findings from studies with quantitative evidence of effects of interventions and studies with qualitative descriptions of barriers and facilitators). Protocols describing, in detail, the methods for these reviews were produced (and peer reviewed) before completion of the reviews. The review methods followed recommended best practice, and involved systematic and comprehensive searching for relevant publications (from year 2002 onwards, published in any language) relating to interventions which aimed to support the mental well-being of health and social care professionals working at the frontline during infectious diseases, which the WHO categorise as epidemics or pandemics. We used methods to reduce the introduction of bias into the review process. We used established tools to assess the methodological limitations of evidence and to judge our confidence in the findings.

An international advisory group was established for this project. The group comprised members from the UK, Europe, Asia, Africa, North and South America and Australia. The advisory group members read and provided comments on drafts of the protocols and Cochrane review. A number of members also contributed to identification and screening of studies for inclusion in the review.

## WHAT WERE THE RESULTS AND WHAT DO THEY MEAN?

We have conducted two linked reviews a scoping review and a Cochrane review of evidence:

Our **scoping review** identified 747 papers relating to the resilience and mental health of health and social care professionals who work at the frontline during disease outbreaks, epidemics or pandemics, and we were able to extract data from 668. Over one-third of papers (238/668) were commentaries or opinion pieces; most of these (71%) related to COVID-19. The remaining 430 papers were research studies; 33% from the COVID-19 pandemic, 19% from Ebola, 17% from severe acute respiratory syndrome (SARS); 13% from influenza outbreaks; and 5% from Middle East respiratory syndrome (MERS). 72% of the research papers broadly related to the *impact* of working in a disease epidemic/pandemic on the mental health of frontline workers. Around one-quarter (28%) mention an intervention, strategy, or 'tips' which may support the mental health of frontline workers, but few evaluate effectiveness. The most common study design was a staff survey (40%), almost all of which only had one outcome time point. Around 17% of studies had a qualitative design (e.g. interviews), while only around 8% had a clear quantitative design (e.g. case-control, cohort, randomised study).

Our **Cochrane review** identified 16 studies which included some evidence about interventions aimed at supporting the resilience or mental well-being of frontline health and social care professionals during or after disease epidemics/pandemics. These studies came from different disease epidemics/pandemics - two were from SARS; nine from Ebola; one from MERS; and four from COVID-19. The studies mainly looked at interventions which were carried out in the workplace and involved either psychological support (like counselling or seeing a psychologist) or work-based interventions (like giving training or changing routines).

Only one study investigated how well an intervention worked. This study was carried out immediately after the Ebola outbreak, and investigated whether staff who were trained to give other people (such as patients and their family members) 'psychological first aid' felt less "burnt out". The evidence in this study was of very low certainty and we cannot say whether the intervention helped or not. No high-quality research studies investigated the effect of interventions.

All 16 studies provided some evidence about barriers and facilitators to implementation of interventions. Factors that probably influenced implementation included the knowledge and beliefs that people had about these strategies; the extent to which they were aware of what they needed to support their mental well-being; access to equipment, staff time and skills; adaptation to local needs; effective communication; and access to a positive, safe and supportive learning environment.

## WHAT IMPACT COULD THE FINDINGS HAVE?

There is a lack of evidence from studies carried out during or after disease outbreaks, epidemics or pandemics which can inform the selection of interventions which are beneficial to the resilience and mental health of frontline health and social care professionals. Alternative sources of evidence, such as evidence arising from other healthcare crises, and general evidence relating to the effectiveness of interventions to support mental well-being during stressful situations, should therefore be used at the current time to inform decision making. When selecting interventions aimed at supporting the mental health of frontline health and social care workers, organisational, social, personal, and psychological factors may all be important.

Based on findings from the review that we have most confidence in, we have developed the following set of questions which may support the selection and successful implementation of interventions to support the mental health and resilience of frontline health and social care professionals.

- Is the intervention flexible, with ability to be tailored to meet local needs?
- Are the needs and resources of the frontline workers known (known to the frontline workers and to their employers/organisations)?
- Are there effective networks of communication (both formal and social networks)?
- Is there a positive, safe and supportive learning environment for the frontline workers (for example, for learning new skills related to caring for patients with the disease)?
- Is there adequate resourcing, including necessary equipment, staff time and skills, for the delivery of the intervention?
- Do frontline staff have adequate knowledge relating to, and belief in, the intervention?

## HOW WILL THE OUTCOMES BE DISSEMINATED?

Our main output is a review published in the Cochrane Library (an online collection of high-quality, independent evidence to inform healthcare decision making). This is available here: [\*Interventions to support the resilience and mental health of frontline health and social care professionals during and after a disease outbreak, epidemic or pandemic: a mixed methods systematic review.\*](#)

A short [video](#) summarises our findings. A [brief written summary](#) is also available. These are being disseminated via social media, with support of the Cochrane knowledge translation team.



Our secondary output is a report of the results of the scoping review. We will submit this for publication in a peer-reviewed journal.

The results of this project were shared with The Parliamentary Office of Science and Technology (POST), UK Parliament, to inform a Parliamentary briefing relating to the *mental health impacts of COVID-19 on NHS healthcare staff*.

### **Further research**

This project, and the input of our international advisory group, has highlighted that there is a strong justification for a major expansion and update of our Cochrane review. This expansion is necessary in order to include evidence relevant to all frontline workers (90% of NHS employees are wider healthcare team members, and are often neglected groups) and preparedness for future health emergencies; to learn from the emergency healthcare response to non-infectious diseases and natural disasters; and to bring together evidence relating to cost-effectiveness, sustainability and health equity.

Our scoping review identified multiple reports which described interventions / strategies proposed to support the mental health and resilience of frontline workers, many during the COVID-19 pandemic. To support optimal, efficient delivery of effective interventions it is essential to systematically identify interventions which are being delivered, to map existing resources and evidence, and identify evidence gaps and top priorities for future intervention research. Our team have written detailed research proposals to address these identified research/evidence synthesis priorities and are seeking funding to enable completion of this work.

Our project highlights the urgent need for high quality primary research studies which evaluate effectiveness of interventions. Future studies must be developed with appropriately rigorous planning, including development, peer review and transparent reporting of research protocols, following guidance and standards for best practice, and with appropriate length of follow-up. Studies should consider the best ways to support social care professionals, people returning to practice or joining the NHS early, and wider healthcare team members, as well as healthcare professionals, who are working at the frontline.

### **CONCLUSION**

There is a lack of evidence from studies carried out during or after disease epidemics/pandemics which can inform the selection of interventions which are beneficial to the resilience and mental health of frontline health and social care professionals. While this is the case, alternative sources of evidence (e.g. from other healthcare crises, and general evidence about interventions which support mental well-being) could therefore be used to inform decision making. When selecting interventions aimed at supporting the mental health of frontline health and social care professionals, organisational, social, personal, and psychological factors may all be important.

Research to determine the effectiveness of interventions is a high priority. The COVID-19 pandemic provides unique opportunities for robust evaluation of interventions, and future studies must be carefully planned. Factors which may act as barriers and facilitators to implementation of interventions should be considered during the planning of future research and when selecting interventions to deliver within local settings.

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## ADDITIONAL INFORMATION

Project start date: 11<sup>th</sup> May 2020. Project completion date: 30<sup>th</sup> October 2020.