Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Silver linings: will the COVID-19 pandemic instigate long overdue mental health support services for healthcare workers?

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Summary

A study in this month's journal adds to the growing body of evidence regarding the potential mental health impacts on frontline healthcare staff working during the COVID-19 pandemic. As clinical academics representing critical care, nursing, and medicine, and a psychologist guiding support for frontline health and social workers, we offer our perspectives on this study. We discuss the balance between pragmatic and rigorous data collection on this topic and offer perspectives on the observed differential impact on nurses. Finally, we suggest that the pandemic might have a positive effect by instigating more robust mental health support services for National Health Service workers.

Keywords: COVID-19; functional impairment; healthcare worker; intensive care; mental health; post-traumatic stress disorder

The SARS-CoV-2 pandemic has transformed nearly every aspect of what we had previously considered 'normal' life. Healthcare workers have been particularly affected, with dual impacts on their home and work lives. In addition to the risk of occupationally acquired SARS-CoV-2 infection, patient volume in excess of system capacity, poor patient outcomes, and social isolation have generated unprecedented stress for healthcare workers, particularly those working in acute care environments such as ICUs. In this issue of the *British Journal of Anaesthesia*, Hall and colleagues[1] report an increase in rates of probable mental health disorders and functional impairment in ICU staff from 58 UK National Health Service (NHS) hospitals during the 2020/2021 winter (corresponding to the peak of the COVID-19 surge), in particular amongst patient-facing nursing staff. As clinical academics representing nursing and medical specialties directly impacted by the pandemic (TS and EAV) and a psychologist guiding support for frontline health and social workers (JB), the study findings resonate with our own lived experiences. The study adds to a growing body of literature examining the mental and physical toll of the COVID-19 pandemic on the group of healthcare workers most likely to care for critically ill infected patients around the world.[2,3] In addition, some of the study limitations aptly illustrate the challenges of conducting high-quality observational and interventional research with at-risk populations, including frontline healthcare workers, during a period of intense workforce strain.

We congratulate the authors on their work that draws further attention to an important issue. The investigators captured a large sample of participants through a flexible web-based survey, used validated measures to identify numerous mental health issues experienced by critical care staff, and included a novel measure of functional impairment. Although the survey was limited to NHS caregivers, it expands the scope of our understanding of challenges faced by ICU staff and raises important questions about the capacity of an overwhelmed workforce to provide high-quality care during the current and future pandemic. As with many studies that seek to generate rapid results, the authors' use of repeated but unlinked surveys creates some methodological weakness. We raise the points below to stimulate discussion about improving the research process whilst recognising that securing such a large sample size with a more robust design would have been a major challenge, especially given the context of the pandemic.

As the authors themselves recognise, the desire to provide complete anonymity to participants made what could have been a longitudinal study, correlating trends in reported mental health disturbances with measures of health system strain across the UK, into a cross-sectional one. Instead, as a

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convenience sample taken from critical care staff, albeit across a large number of hospitals, the true total sample size and key demographic characteristics of survey participants cannot be known, limiting study generalisability and comparability to other research.[4] Most importantly, without assurance that study participants represent a balanced sample of the population, there remains risk (as recognised by the authors) that staff with probable mental health symptoms (including pre-existing symptoms) or those struggling at work may have been over-represented or under-represented among study participants. Without available baseline data, the study assumes that all measured mental health symptoms and potential physical impairments were caused by pandemic-related work stressors. However, there is good evidence to suggest that even before the pandemic, healthcare staff were suffering from a variety of mental health difficulties. For example, a recent study using clinical diagnostic interviews with healthcare staff in a range of settings (not only ICUs) described high rates of post-traumatic stress disorder (PTSD) among study participants (44%), and found that half of the traumatic incidents described occurred before the pandemic.[5] Additionally, anonymity of collected responses may have been an attractive feature of the study for some participants, however investigators lost the opportunity to identify, and offer care, to a group of vulnerable people. Although study participants were not identifiable and therefore not fully subject to human subjects research protections, offering participants (and potential participants) access to additional education, formal screening, and free treatment is both an ethical and pragmatic approach to augmenting other occupational health initiatives.

Notwithstanding these issues, the results of this study provide sobering data on the potential impact of working in an ICU during the COVID-19 pandemic and its differential impact across professions and levels of seniority in the NHS. Unfortunately, the risk of mental health difficulties among healthcare workers is not a new concern.[6] In 2009 in the UK, the Boorman report found insufficient support for mental health issues experienced by NHS staff.[7] Sadly, the report's recommendations were overlooked for two decades, until the system was further strained by the COVID-19 pandemic, with potentially grave consequences both for those individuals and the health system overall.[8] The fact that junior nursing staff had by far the highest risk of potential mental health disturbance will be of no surprise to anyone who spent time on an ICU during the COVID-19 surge. With an ICU patient mortality of 40–50%,[9] nurses were exposed to an unprecedented death toll. In many instances, visiting restrictions further isolated nurses providing direct care to patients at the end of life. Carrying that emotional burden, combined with a relentless stream of new admissions (at a volume surpassing the first wave) in very difficult working conditions has taken a toll. Exposure to multiple deaths and being a nurse were also two of the key risk factors associated with mental health issues identified in similar international studies.[2,3] Now we need to act to support these staff across the globe, and plan for the future.

In response to the pandemic, the UK Department of Health invested in its Mental Health Recovery Action Plan, identifying frontline healthcare workers as a key group in need of extra psychological support.[10] Existing primary care psychological therapy services are being enhanced and new hospital staff support services are being developed across the UK. This is a welcome initiative. However, it is imperative that such services offer a coherent and easily accessible service, with timely access for staff to evidence-based treatment. Tragically, it has been our experience that many frontline staff have not been able to access such support, are being held on lengthy waiting lists, or ultimately pay for private therapy. We need to ensure that continued investment is made in such services, and that access to support is equitable amongst different staff groups and localities. As yet, best practices for supporting healthcare workers are still in their infancy, and further investment needs to be made in supporting good quality research conducted in partnership with the healthcare workers it aims to understand and support.[11] We also need to invest in specific training for the mental health workforce to understand and support the unique needs of frontline healthcare workers.[12]

The mental health of frontline healthcare workers has long been neglected so we hope that these investments in the UK will be sustained and mirrored by health departments worldwide. If so, some good may yet come out of this pandemic, by establishing permanent and evidence-based support services for frontline staff. As Hall and colleagues[1] point out, organisational change and investment is also essential in order to resource clinical services adequately and prevent further workload-related stress. Protecting the global ICU workforce from further mental health distress and impairment is imperative, and would truly be a silver lining.

Authors' contributions

Conception, critical revision, and final approval: all authors
Drafting of manuscript: TS
Critical revision and approval of final manuscript: all authors

Declarations of interest

The authors declare that they have no conflicts of interest. EAV is an editorial fellow of the *British Journal of Anaesthesia*.

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