

Psychological distress and trauma during the January 2021 peak of the COVID-19 pandemic: a survey of doctors practising in Anaesthesia, Intensive Care Medicine and Emergency Medicine in the United Kingdom and Republic of Ireland

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Dear Editor,

The UK has now endured two major pandemic response phases in the UK and Ireland: one in the spring of 2020 and one in the winter of 2020/21. This has placed an unprecedented strain on frontline healthcare workers.^{1,2} Earlier research during the first pandemic response identified high rates of psychological distress and trauma in doctors.²⁻⁵ The impact of further pandemic phases on mental health, workforce attrition and clinical care is yet to be established. As the pandemic continues it is vital we track the psychological impact on acute care workers, in order to inform policy and service provision. In this correspondence, we report the rate of psychological distress and trauma of frontline doctors working in Anaesthetics, Intensive Care Medicine (ICM) and Emergency Medicine (EM), during January 2021. We have compared these to previous findings to quantify progressive psychological impact.

The COVID-19 Emergency Response Assessment (CERA) study is an ongoing prospective longitudinal survey study evaluating the psychological health of frontline doctors across the UK and Ireland throughout the pandemic. All respondents of the original survey, delivered during the acceleration phase of the first response, were invited to participate in the most recent iteration.^{2,6} Participants repeated the original validated measures, the General Health Questionnaire-12 (GHQ-12) for psychological distress and the Impact of Events Scale – Revised (IES-R) for trauma response.^{7,8} Responses were collected between 28/01/2021–11/02/2021 (UK) and 01/02/2021–15/02/2021 (Ireland), contemporaneous with peak hospital COVID-19 deaths in this pandemic phase. Data were collected using REDCap (Research Electronic Data Capture) hosted at University Hospitals Bristol and Weston NHS Foundation Trust.^{9,10} Ethical approval was obtained from the University of Bath (UK) (ref: 20-218) and the Children’s Health Ethics Committee (Ireland) (ref: GEN/806/20). Regulatory approval was obtained from the Health Regulation Authority (UK). All analyses and statistical outputs were produced using R.¹¹

Results

In total 1719 participants responded to all CERA surveys, with response rates outlined in supplementary-1. This latest cohort comprised 701 (40.8%) participants from Anaesthesia, 778 (45.3%) from EM, and 164 (9.5%) from ICM; some worked across two specialties.

Demographic and professional characteristics are summarised in supplementary-2. The cohort was 51.0% female, had a median age group of 36-40 years, and was representative of all professional grades. Respondents were 66.2% ‘White British’, 7.1% ‘Irish’ and 26.1% ‘Ethnic Minority’.

GHQ-12

The prevalence of psychological distress, as defined by a score >3 on the GHQ-12 0-0-1-1 scoring method, was 53.2% (n=801): an increase from 44.7% (n=1334) during the first pandemic response.² The median GHQ-12 score was 15.0 (Q1-Q3 11.0-20.0), higher than all previous surveys.³ The average distress score was highest in the ICM cohort (supplementary-3).

IES-R

The prevalence of psychological trauma (IES-R >24) was higher during January 2021 when compared to the peak of the first response, at 28.4% and 23.7% respectively (supplementary-3).³ The prevalence of 'probable PTSD' (IES-R >33) also increased to 17.2% (n=225) from 12.6% (n=343).³

Prevalence of trauma (>24) increased in all speciality groups. This was highest in ICM at 31.1% (n=44) followed by EM (28.9%, n=176) and Anaesthetics (27.7%, n=142). Across all surveys the median IES-R was 15 (Q1-Q3, 6-27), highest in the ICM cohort at 18 (Q1-Q3, 9-29) (supplementary-3).

Rates of distress and trauma during January 2021 are the highest they have been during this pandemic. Figure 1 demonstrates the inter-survey change in GHQ-12 and IES-R for those that completed all surveys. This highlights a cohort of individuals who have consistently scored high distress and trauma scores across all time-points, demonstrated as orange in figure 1.

Change in scores over pandemic phases – GHQ-12

Whilst there was a degree of recovery through the acceleration, peak, and deceleration phases of the first pandemic response, this was reversed during the January 2021 peak. Almost 50% of those scoring below the distress threshold in deceleration phase of the first response, reported scores above this threshold in the current survey. This has resulted in the majority of all respondents exceeding the distress threshold during January 2021 for the first time (figure 1).

Change in scores over pandemic phases – IES-R

Compared to previous surveys, there was an increase in the number of participants who reported psychological trauma (> 24) and probable 'PTSD' (> 33). Proportionally, fewer respondents demonstrated recovery when compared to the number of participants with worsening trauma symptoms between surveys 3 and 4 (figure 1). Further, 135/943 respondents that had never previously scored above 24, now reported a score above 24 and 60 (44.4%) of these were over 33.

Limitations

These results may be subject to bias; only 31.6% of participants responded to *all* surveys. The GHQ-12 and IES-R were designed as screening rather than diagnostic tools; therefore, findings should be interpreted as indicative. Formal diagnostic interviews offer a more definitive diagnosis; however, this presents logistical challenges for large studies. As pre-pandemic data were not collected, we are unable to compare to 'usual' levels of distress and quantify the influence of the pandemic on the reported scores, yet due to the longitudinal nature of the study we can reliably report an increasing trend of distress and rates above normative data at each time point.^{2 3}

Conclusion

Our findings demonstrate that rates of psychological distress and trauma in doctors increased further during January 2021, compared to the initial pandemic peak (April 2020). These findings raise significant concerns regarding the psychological capacity of the acute care workforce for future pandemic phases, which may exacerbate already existing workforce crises.¹² Contrary to previous findings, we found no evidence that the process of natural recovery, immersive pandemic working or increasing therapeutic options for pandemic illness led to any mitigation in the prevalence of psychological distress.

These findings provide contemporary evidence that there is a significant cohort of doctors who continue to experience high levels of distress and trauma throughout every phase of the pandemic. It is vital that those in distress are identified and fully supported via evidence-based therapies to prevent long-term sequelae; the potential impact on workforce attrition and longer-term mental health is likely to become unmanageable without imminent strategic action.

Author Contributions

The corresponding author attests that all listed authors meet authorship criteria and that no others meeting the criteria have been omitted. TR conceived the idea for the study. All authors were responsible for data collection and study design. CR and CSP conducted the data analysis. TR, RH, JD, DH, EC and ML all contributed to drafts of the manuscript. All other authors critically reviewed the manuscript and approved the final version.

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Declaration of interests

Many of the authors have been working as frontline clinicians during the COVID-19 pandemic. They have no competing interests to declare.

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