

NHS CHECK: A longitudinal cohort study of NHS workers' mental health and wellbeing

The NHS CHECK study is a longitudinal cohort study of the mental health and wellbeing of UK NHS workers that began during the COVID-19 pandemic. [Lamb et al., 2021, NHS CHECK: protocol for a cohort study investigating the psychosocial impact of the COVID-19 pandemic on healthcare workers <https://bmjopen.bmj.com/content/11/6/e051687.abstract>]. The study primarily consists of online surveys completed at Phase 1 (Baseline; April 2020-January 2021), Phase 2 (October 2020-July 2021), Phase 3 (April 2021-February 2022) and Phase 4 (February 2023-April 2023), but includes several sub-studies (a diagnostic interview study, qualitative interview studies, and a randomised controlled trial of a smartphone wellbeing app).

Staff from 18 NHS Trusts across England were recruited, including acute and mental health Trusts. The baseline survey included questions about: 1) impact of COVID-19 (e.g. on family, income, health, positive and negative changes in personal life or work), 2) work experiences (leadership and teamwork, sickness absence, unsafe clinical practices, preparedness), 3) usefulness of staff support programmes, 4) caring responsibilities outside of work, 5) confidence in institutions to handle the COVID-19 pandemic.

The study represents a large sample size (N>23,000) with similar demographic characteristics to the overall NHS workforce in terms of age and sex, though proportionally fewer participants from minoritised racial and ethnic groups. Preliminary data showed high levels of distress and symptoms associated with common mental disorders, substantially high levels of probable common mental disorders (59%) and probable post-traumatic stress disorder (PTSD) (30%) [Lamb et al., 2022, Psychosocial impact of the COVID-19 pandemic on 4378 UK healthcare workers and ancillary staff: initial baseline data from a cohort study collected during the first wave of the pandemic, <https://oem.bmj.com/content/78/11/801.abstract>]. With the notable exception of PTSD, the results are comparable to findings from previous epidemics, however this may be a result of differing PTSD measures and cut-off scores between the studies.

Mental health and wellbeing outcomes

In line with other studies, compared with general population data which used the same measure and cut-off score, there was a much higher prevalence of poor general psychological health in healthcare workers. Subsequent analyses of gold standard psychiatric diagnostic interviews found that the screening measures used in the online surveys are likely to overestimate the prevalence of mental health disorders, with more accurate estimated population prevalence of generalised anxiety disorder and depression of 22%, and of PTSD of 8% [Scott et al., 2022, Prevalence of post-traumatic stress disorder and common mental disorders in health-care workers in England during the COVID-19 pandemic: a two-phase cross-sectional study, [https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366\(22\)00375-3/fulltext](https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366(22)00375-3/fulltext)].

While much lower than the numbers found by large scale surveys, these still show concerning levels of diagnosable mental disorders in the healthcare workforce. Similarly, an analysis of data regarding suicidal thoughts and behaviours in this cohort also found concerning evidence [Padmanathan et al., 2023, Suicidal thoughts and behaviour among healthcare workers in England during the COVID-19 pandemic: A longitudinal study, <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0286207>]. At baseline and 6 months later, 11% and 9% (respectively) of participants reported recent suicidal thoughts, 2% reported a recent suicide attempt, and 3% reported recent self-harm. As these data were

longitudinal, it was possible to find out that, of those who at baseline reported no history of ever attempting suicide, 4% reported a suicide attempt 6 months later. More in-depth analysis and qualitative research is needed to unpick the reasons for these worrying findings, but one factor that seems to be implicated in a number of poor mental health outcomes is moral injury.

Moral injury in NHS workers

Originating in military research, the concept of moral injury refers to the psychological harm caused by either witnessing or participating in actions that transgress one's moral beliefs. Data from the baseline survey show that 28% of participants reported experiencing potentially morally injurious events, and that those who were statistically significantly more likely to also experience symptoms of PTSD, anxiety, depression, and burnout [Williamson et al., 2023, Moral injury and psychological wellbeing in UK healthcare staff, <https://www.tandfonline.com/doi/full/10.1080/09638237.2023.2182414>].

Qualitative work on this issue has found that healthcare workers feel they have been betrayed by government and NHS leaders, and have been put in positions where they are unable to provide the appropriate quality of care to patients. The impacts of these morally injurious experiences were described as increased anxiety and depression, and sleep disturbance, with most participants believing that organisational change was necessary to reduce or prevent exposure to such experiences, and support the resolution of moral distress [Hegarty et al., 2022, 'It hurts your heart': frontline healthcare worker experiences of moral injury during the COVID-19 pandemic, <https://www.tandfonline.com/doi/full/10.1080/20008066.2022.2128028>].

Systemic issues and support services

Additional qualitative interviews with healthcare workers about their experiences of health and wellbeing support services also found that systemic issues such as workload and understaffing (and the related socio-political contexts of austerity and Brexit) played a large role in whether participants were able to access support [Clarkson et al., 2023, 'You get looked at like you're failing': A reflexive thematic analysis of experiences of mental health and wellbeing support for NHS staff, <https://journals.sagepub.com/doi/full/10.1177/13591053221140255>].

Things that enabled use of support services were visible, caring leadership at all levels (CEO to line managers), peer support, easily accessible services, and clear communication about support offers. One type of support being offered to staff by many NHS Trusts is access to smartphone wellbeing apps. Using the NHS CHECK cohort, a randomised controlled trial of over 1,000 participants found that those using a wellbeing app ('Foundations' by Koa Health) over eight weeks had a reduction in symptoms of psychological distress and insomnia, and an improvement in wellbeing [Gnanapragasam et al., 2022, Multicentre, England-wide randomised controlled trial of the 'Foundations' smartphone application in improving mental health and well-being in a healthcare worker population, <https://doi.org/10.1192/bjp.2022.103>].

