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What we have learned from two decades of epidemics and pandemics: A systematic review and meta-analysis of the psychological burden of frontline healthcare workers

I. Buscha, F. Morettia, M. Mazzia, A. Wu, M. Rimondinia

1Department of Health Policy and Management, Johns Hopkins Bloomberg School of Public Health, Baltimore, United States of America
2Department of Neurosciences, Biomedicine and Movement Sciences, University of Verona, Verona, Italy
3Department of Health Policy and Management, Johns Hopkins Bloomberg School of Public Health, Baltimore, United States of America

Objective

Given the ongoing COVID-19 pandemic and future disease threats, a profound comprehension of the impact of epidemics and pandemics on healthcare providers’ mental health is needed to address these current and future global health challenges. Thus, aim of this study was to quantify psychological and psychosomatic symptoms among healthcare staff working on the frontlines of SARS-CoV-1, H1N1, Ebola, MERS, and SARS-CoV-2.

Methods

We systematically searched four databases and additional literature, including daily search alerts. Two reviewers independently performed all methodological steps, involving a third reviewer in case of dissent. We pooled the overall symptom prevalence rates applying random effects modeling and calculated the I² to account for statistical heterogeneity.

Results

Of 1995 retrieved records, we assessed 417 full texts for eligibility, and included 86 studies. Frontline providers suffered from various symptoms, like concern about transmitting the virus to family (60.39%, 95% CI 42.53–76.96) and concern about own health (45.97%, 95% CI 31.08–61.23), sleep disturbances (39.88%, 95% CI 27.70–52.72), burnout (31.81%, 95% CI 13.32–53.89), depression (25.72%, 95% CI 18.34–33.86), anxiety (25.36%, 95% CI 17.90–33.64), posttraumatic stress disorder (24.51%, 95% CI 18.16–31.46), and somatization (14.68%, 95% CI 10.67–19.18).

Conclusion

Our findings, based on information from 75,991 participants, highlight the severe psychological effects of epidemics and pandemics on frontline staff. As another COVID-19 wave, driven by Delta and Omicron, puts even more strain on an already exhausted medical system and healthcare providers face aggression and threats from anti-vaccine activists, providing tailored psychological support for the healthcare workforce becomes all the more important.

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