

Symptoms of depression and anxiety during the COVID-19 pandemic: implications for mental health

Helen Herrman^{1,2} and Christian Kieling^{3,4}

People with existing mental health problems or living in difficult circumstances may be at particular risk



The short and longer term adverse effects of the coronavirus disease 2019 (COVID-19) pandemic and its economic consequences on the mental health of individuals and communities are under intense scrutiny.^{1,2} Governments and scientists are anxious about the adequacy of mental health services and the possibility of increased suicide rates.^{3,4}

Well designed longitudinal studies are needed to guide decisions about policies and actions to prevent and ameliorate mental health problems and to support population resilience. Such studies, however, are rare. One year into the pandemic, two systematic reviews and meta-analyses of longitudinal studies initiated or active early in 2020 have been published.^{5,6} They suggest that people around the world have generally been resilient to the initial effects of lockdowns,⁵ or describe small population increases in mental health symptoms that declined to pre-pandemic levels by mid-2020.⁶ These findings are in line with previous reports on disasters, including Australian bushfires; most people exhibit acute responses to an unexpected adversity, but then adapt to the situation.^{1,2,7} The marked study heterogeneity in both analyses^{5,6} might be explained by sampling differences, but it is possible that specific subgroups were affected differently by the pandemic, as also reported for earlier disasters.^{1,2,5,6}

The Australian study reported in this issue of the Journal,⁸ one of the first nationally representative longitudinal studies of mental health during the COVID-19 pandemic,^{9,10} provides crucial insights into the experiences of vulnerable subgroups in Australia. The latent trait trajectories for depression and anxiety symptom scores during March – June 2020 identified by Batterham and colleagues suggest that, for most participants in their survey, stress related to the pandemic was transient and unlikely to lead to clinical depression or anxiety disorders. However, they also identified trajectories of elevated or increasing depression (about 19% of participants) and anxiety symptom scores (23% of participants) over the 12-week period. Factors associated with these trajectories were COVID-19-related social and role impairment and financial distress, an existing mental disorder diagnosis, younger age, and exposure to



recent adversity (the bushfires of 2019–20). This pattern is consistent with previous suggestions^{1,6,7} that the pandemic should raise concerns about risks for mental ill health in particular subgroups of people.

The COVID-19 pandemic has affected communities differently to previous epidemics and emergencies.¹⁻³ The economic and social stresses of job loss, school closures, and violence have fallen most heavily on younger people and women.³ Some older people have found themselves better off economically or relieved of daily stresses, even if lonely and fearful of infection. We can expect each of these effects to have implications for different forms of mental ill health — common mental disorders (including depression and anxiety), the harmful use of alcohol and drugs, people living with mental disorders, or suicidal behaviour — and their consequences.¹⁻³

Predicting and preventing the effects of the pandemic on mental health require us to consider the multifactorial underpinnings of mental health and ill health.¹ Income inequality, violence, gender differences, and other social inequities damage population mental health.¹¹ Loneliness is associated with the development of depressive symptoms, especially later in life.¹² Public policy is needed that counteracts these effects and supports social connections and population resilience¹³ as well as practice changes, including increased online and telephone support for people with mental health, financial and social isolation problems⁸ and suicide prevention crisis lines.

For clinicians, the study by Batterham and colleagues⁸ highlights who is at particular risk of poor mental health during a crisis: people with prior mental health problems or disaster experience, and those living in fear of violence or with financial, work, or social difficulties. Clinicians also need access to resources for community and online support, including training in safe responses to family violence.

¹Orygen, Melbourne, VIC. ²Centre for Youth Mental Health, the University of Melbourne, Melbourne, VIC. ³Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil. ⁴Hospital de Clínicas de Porto Alegre, Porto Alegre, Brazil. ✉ h.herrman@unimelb.edu.au • doi: 10.5694/mja2.51080 • See Research (Batterham).

Podcast with Helen Herrman and Christian Kieling available at mja.com.au/podcasts

In order to guide policy and practice responses across health and other sectors, the approach of Batterham and his colleagues⁸ should be extended to providing longer term follow-up. The consequences of stressful events might not emerge until years or even decades have passed. Suicide rates, for example, may continue to rise in coming years among young people and other vulnerable groups unless comprehensive prevention strategies are reviewed.¹⁴ Similarly, findings from Australia and overseas can provide insights into the effects of the COVID-19 pandemic and its consequences on the mental health of individuals and populations; a new initiative aims to develop a living systematic review to provide up-to-date global meta-ecological information for this purpose.¹⁵ Data modelling analogous to that used to predict viral transmission has also been proposed.³

As an event unprecedented in recent times, and completely new in a global, interconnected world, the COVID-19 pandemic poses numerous challenges, including the demand for new research and data on how individuals and communities respond to the pandemic and its consequences.¹⁶ Such knowledge is crucial to planning and implementing actions to promote and protect mental health in Australia and elsewhere.

Competing interests: No relevant disclosures.

Provenance: Commissioned; not externally peer reviewed. ■

© 2021 AMPCo Pty Ltd

- 1 United Nations COVID-19 and the need for action on mental health [policy brief]. May 2020. <https://unsdg.un.org/sites/default/files/2020-05/UN-Policy-Brief-COVID-19-and-mental-health.pdf> (viewed Apr 2021).
- 2 Pfefferbaum B, North CS. Mental health and the Covid-19 pandemic. *N Engl J Med* 2020; 383: 510–512.
- 3 Atkinson JA, Skinner A, Lawson K, et al; Brain and Mind Centre, University of Sydney. Road to recovery: restoring Australia's mental wealth. 27 July 2020 <https://www.sydney.edu.au/content/dam/corporate/documents/brain-and-mind-centre/youth/the-road-to-recovery-v2.pdf> (viewed Mar 2021).

- 4 Tanaka T, Okamoto S. Increase in suicide following an initial decline during the COVID-19 pandemic in Japan. *Nat Hum Behav* 2021; 5: 229–238.
- 5 Prati G, Mancini AD. The psychological impact of COVID-19 pandemic lockdowns: a review and meta-analysis of longitudinal studies and natural experiments. *Psychol Med* 2021; 51: 201–211.
- 6 Robinson E, Sutin AR, Daly M, Jones A. A systematic review and meta-analysis of longitudinal cohort studies comparing mental health before versus during the COVID-19 pandemic [preprint]. *medRxiv* 8 Mar 2021; <https://doi.org/10.1101/2021.03.04.21252921> (viewed Mar 2021).
- 7 Beyond Blue. Bushfires and mental health [web page]. 2020. <https://www.beyondblue.org.au/the-facts/bushfires-and-mental-health> (viewed Mar 2021).
- 8 Batterham PJ, Calear AL, McCallum SM, et al. Trajectories of depression and anxiety symptoms during the COVID-19 pandemic in a representative Australian adult cohort. *Med J Aust* 2021; 214: 462–468.
- 9 Daly M, Sutin AR, Robinson E. Longitudinal changes in mental health and the COVID-19 pandemic: evidence from the UK Household Longitudinal Study. *Psychol Med* 2020; 13: 1–10.
- 10 Pan KY, Kok AAL, Eikelenboom M, et al. The mental health impact of the COVID-19 pandemic on people with and without depressive, anxiety, or obsessive-compulsive disorders: a longitudinal study of three Dutch case-control cohorts. *Lancet Psychiatry* 2021; 8: 121–129.
- 11 Patel V, Burns JK, Dhingra M, et al. Income inequality and depression: a systematic review and meta-analysis of the association and a scoping review of mechanisms. *World Psychiatry* 2018; 17: 76–89.
- 12 Courtin E, Knapp M. Social isolation, loneliness and health in old age: a scoping review. *Health Soc Care Community* 2017; 25: 799–812.
- 13 Herrman H, Stewart DE, Diaz-Granados N, et al. What is resilience? *Can J Psychiatry* 2011; 56: 258–265.
- 14 Australian Department of Health. What we're doing about suicide prevention. Updated 19 Apr 2021. <https://www.health.gov.au/health-topic/mental-health-and-suicide-prevention/what-were-doing-about-suicide-prevention#strategies-and-plans> (viewed Apr 2021).
- 15 Leucht S, Cipriani A, Furukawa TA, et al. A living meta-ecological study of the consequences of the COVID-19 pandemic on mental health. *Eur Arch Psychiatry Clin Neurosci* 2021; 271: 219–221.
- 16 Novins DK, Stoddard J, Althoff RR, et al. Research priorities in child and adolescent mental health emerging from the COVID-19 pandemic. *J Am Acad Child Adolesc Psychiatry* 2021; 17: S0890–8567(21)00153–2 [online ahead of print.]. ■