

## Correspondence

**Cite this article:** Bai W, Li J-X, Wang Y-Y, Zheng W-Y, Su Z, Cheung T, Jackson T, Xiang Y-T (2022). The need to address mental health problems in the context of China's long-term 'dynamic-zero policy'. *Psychological Medicine* 1–2. <https://doi.org/10.1017/S0033291722003725>

Received: 11 November 2022

Revised: 16 November 2022


Accepted: 21 November 2022

**Author for correspondence:**

Yu-Tao Xiang,

E-mail: [xyutly@gmail.com](mailto:xyutly@gmail.com)

# The need to address mental health problems in the context of China's long-term 'dynamic-zero policy'

Wei Bai<sup>1,2</sup> , Jia-Xin Li<sup>2</sup>, Yue-Ying Wang<sup>2</sup>, Wan-Ying Zheng<sup>1</sup>, Zhaohui Su<sup>3</sup>, Teris Cheung<sup>4</sup>, Todd Jackson<sup>5</sup> and Yu-Tao Xiang<sup>1,2</sup>

<sup>1</sup>Unit of Psychiatry, Department of Public Health and Medicinal Administration, Faculty of Health Sciences, Institute of Translational Medicine, University of Macau, Macao SAR, China; <sup>2</sup>Centre for Cognitive and Brain Sciences, University of Macau, Macao SAR, China; <sup>3</sup>School of Public Health, Southeast University, Nanjing, China; <sup>4</sup>School of Nursing, Hong Kong Polytechnic University, Hong Kong SAR, China and <sup>5</sup>Department of Psychology, University of Macau, Macao SAR, China

Mental health problems have been widely documented during the coronavirus disease 2019 (COVID-19) pandemic (Daly, Sutin, & Robinson, 2022). Although strict public health measures have been lifted in most countries, China has maintained a 'dynamic-zero policy' as an overarching strategy for managing COVID-19. In particular, strict quarantine and lockdown policies continue to be implemented in many areas with newly identified cases and result in significant disruption to daily life as well as increased risk for mental health problems. Using the search strategy of a previous bibliometric analysis (Akintunde et al., 2021), we sought relevant literature in Web of Science and identified over 37 000 relevant articles, of which, over 4000 papers were published by researchers in China. These literature ranged from commentary articles published at a very early stage of the pandemic to randomized control trials and cohort studies based on sophisticated study designs that appeared at later stages of the pandemic. Such work has played an important role in combating the pandemic as well as reducing and preventing mental health problems. However, several limitations of studies on mental health problems undertaken during the pandemic should be underlined. First, for logistical reasons, most studies on mental health problems have been cross-sectional in nature and provide only snapshots of comorbidity at fixed points of time. Second, most studies were initiated during the pandemic and lacked comparisons with pre-pandemic data. Consequently, it is difficult to determine whether mental health problems in many populations have been driven by the pandemic.

In early 2022, influential China-based experts in China stated that 'prolonged dynamic zeroing cannot be pursued in the long run'. However, authoritative state media and China's Ministry of Health contend that the 'dynamic-zero policy' is sustainable and must persist. Therefore, a new challenge arises: most current studies on mental health problems during pandemics were guided, in part, by experiences of previous time-limited natural disasters (e.g. Severe Acute Respiratory Syndrome (SARS) outbreak, Wenchuan earthquake) that did not take into account mental health problems resulting from a 'second disaster' ('*Cishengzaihai*') caused by the unbending long-term COVID strategy China has adopted.

Mental health problems have been well documented during the COVID-19 pandemic, but 'second disaster' effects of the pandemic (i.e. the disaster induced by psychosocial disruptions, practical and financial problems, and complex community and political issues) on mental health have been ignored. In the later stage of the COVID-19 pandemic, vaccines have been widely embraced and symptoms of most infected cases have been mild. Therefore, the COVID-19 mortality rate has been very low in the general population of China. A systematic review found the estimated excess mortality rate due to COVID-19 in China to be 0.6 per 100 000, while the corresponding global figure was 120.3 per 100 000 (Wang et al., 2022); this contrast underscores the superiority of the zero-dynamic policy vis a vis mortality risk. However, 'second disaster' consequences of China's COVID-19 pandemic policy such as interruption of classroom teaching, economic recession, and limited access to medical services, should also be addressed.

For example, a survey of approximately 300 000 primary and middle school students found that problems in psychological adjustment (i.e. learning without motivation, reduced interest in real world events, social incapacity, and a poor sense of the value of life) have been growing over time with the implementation of the 'dynamic-zero policy' in China (Sina Finance, 2022). Apart from its influence on education, policy effects on financial security and complex community issues (e.g. sufficient food and material supplies for daily living, access to needed medical services) may follow from the policy, inducing 'second disaster' fallout. Therefore, further studies addressing 'second disaster' effects of a strict, long-term COVID strategy on mental health problems are warranted in China.

Finally, to date the longest follow-up duration of coronavirus survivors in China has been 41.3 months in a sample of SARS survivors (Lam et al., 2009). Associated results indicated 42.5% of survivors had experienced at least one active psychiatric illness as determined by the Diagnostic and Statistical Manual of Mental Disorders (Fourth Edition) (DSM-IV), particularly PTSD, depression and somatoform pain disorder (Lam et al., 2009). With respect to research on mental health problems during the COVID-19 pandemic, the longest follow-up study thus far in China was conducted by Cao Bin's team; these authors examined health outcomes of COVID-19 survivors over the course of two years (Huang et al., 2022) and found that overall rates of depressive and/or anxiety symptoms remained high 6 months after hospitalization (23%) but gradually declined after 2 years (12%). In other prospective work, the association between transitions to social isolation transitions and psychological distress was evaluated over one year among community-dwelling older adults before and during the COVID-19 pandemic in rural China (Li et al., 2022). Analyses found that there was an elevated risk for psychological distress among those who had transitioned from non-isolation before the pandemic to social isolation during the pandemic.

Some scholars have predicted that the negative impact of the COVID-19 pandemic on mental health could persist for at least 20 years. However, this prediction may be still quite conservative. For instance, a study on the massive 1959–1961 famine in China and its relationship with incidence of schizophrenia found that prenatal exposure to famine increased the risk of schizophrenia in later life (St Clair et al., 2005). More recently, a 44-year birth cohort study found that fetal exposure to the 1976 Tangshan earthquake resulted in a 25% higher risk for developing schizophrenia compared to non-exposure during fetal development (Zhang et al., 2022).

In summary, although there have been numerous studies on mental health problems during the COVID-19 pandemic in China, immediate and long-term negative mental health outcomes resulting as an unintended consequence of the country's continuing strict COVID strategy should also be examined.

**Conflict of interest.** The authors have no conflicts of interest to declare.

## References

- Akintunde, T. Y., Musa, T. H., Musa, H. H., Musa, I. H., Chen, S., Ibrahim, E., ... Helmy, M. S. E. D. M. (2021). Bibliometric analysis of global scientific literature on effects of COVID-19 pandemic on mental health. *Asian Journal of Psychiatry*, 63, 102753. <https://doi.org/10.1016/j.ajp.2021.102753>.
- Daly, M., Sutlin, A. R., & Robinson, E. (2022). Longitudinal changes in mental health and the COVID-19 pandemic: Evidence from the UK Household Longitudinal Study. *Psychological Medicine*, 52, 2549–2558. doi:10.1017/S0033291720004432.
- Huang, L., Li, X., Gu, X., Zhang, H., Ren, L., Guo, L., ... Cao, B. (2022). Health outcomes in people 2 years after surviving hospitalisation with COVID-19: A longitudinal cohort study. *The Lancet Respiratory Medicine*, 10, 863–876. [https://doi.org/10.1016/S2213-2600\(22\)00126-6](https://doi.org/10.1016/S2213-2600(22)00126-6).
- Lam, M. H.-B., Wing, Y.-K., Yu, M. W.-M., Leung, C.-M., Ma, R. C. W., Kong, A. P. S., ... Lam, S.-P. (2009). Mental morbidities and chronic fatigue in severe acute respiratory syndrome survivors: Long-term follow-up. *Archives of Internal Medicine*, 169, 2142–2147. doi:10.1001/archinternmed.2009.384.
- Li, J., Li, J., Yan, C., Yang, S., Li, Z., Li, W., ... Zhou, C. (2022). Social isolation transitions and psychological distress among older adults in rural China: A longitudinal study before and during the COVID-19 pandemic. *Journal of Affective Disorders*, 308, 337–342. <https://doi.org/10.1016/j.jad.2022.04.045>.
- Sina Finance (2022). *Interview with Peng Kaiping of Tsinghua University: How to improve psychological resilience during the epidemic?*. Beijing, China: Sina Finance (in Chinese).
- St Clair, D., Xu, M., Wang, P., Yu, Y., Fang, Y., Zhang, F., ... He, L. (2005). Rates of adult schizophrenia following prenatal exposure to the Chinese famine of 1959–1961. *JAMA*, 294, 557–562. doi:10.1001/jama.294.5.557.
- Wang, H., Paulson, K. R., Pease, S. A., Watson, S., Comfort, H., Zheng, P., ... Murray, C. J. L. (2022). Estimating excess mortality due to the COVID-19 pandemic: A systematic analysis of COVID-19-related mortality, 2020–21. *The Lancet*, 399, 1513–1536. [https://doi.org/10.1016/S0140-6736\(21\)02796-3](https://doi.org/10.1016/S0140-6736(21)02796-3).
- Zhang, Y.-S., Rao, W.-W., Zhang, L.-L., Jia, H.-X., Bi, H., Wang, H.-L., ... Xiang, Y.-T. (2022). Incidence rate of schizophrenia after the Tangshan earthquake in China: A 44-year retrospective birth cohort study. *Translational Psychiatry*, 12, 365. doi:10.1038/s41398-022-02125-3.