The epidemiology of population mental wellbeing in China

Since 1949, China has achieved impressive life expectancy gains, initially through reducing infant and child mortality, then by undergoing unprecedented and rapid economic development. However, there has been much less emphasis placed on enhancing mental wellbeing.[1] Mental illness is a leading cause of disability in China, and one in six adults develop a mental disorder during their lifetime.[2,3]

China passed its first mental health law in 2012 to help prioritise population mental wellbeing.[4] In addition to reducing treatment gaps, it is necessary to improve the mental wellbeing of the entire population. To do so would require targeting the emerging and prevailing determinants of population mental health and recognising and overcoming barriers contributing to the care gap, including stigma, mental health literacy, and accessibility and quality of mental health services.[3,4]

To effect change, it is important to understand the epidemiology of mental wellbeing nationally and sub-nationally by region, level of governance, and urban-rural divide. The distribution of different mental conditions and their determinants across social, economic, and demographic groups is also crucial information for precision policy planning and evaluation.

Research into the determinants of population mental health has often involved studying vulnerable groups and emerging population-level events such as natural disasters and epidemics. Of immediate relevance and in addition to its immediate adverse impact on physical health, the COVID-19 pandemic presents a clear threat to mental health in China and globally. However, studies on COVID-19 and mental health so far have predominantly used online convenience samples, which are prone to selection bias.[5] Many have commented on the scarcity of nationally representative psychiatric epidemiological data around special events in China for at least a couple of decades.[6]

A prevailing determinant of mental health in China concerns the many migrant workers and their so-called left-behind children (ie, children left at home usually in rural areas when their parents have migrated to work in large cities). Prior to COVID-19, migrant workers already had a higher risk of mental disorders, and their children often suffer depression, anxiety, suicidal ideation, conduct disorder, and substance use during childhood and adolescence.[3,7] An unresolved question is whether these left-behind children will endure longer-term health consequences. Older adults in Guangzhou, the provincial capital of Guangdong in southern China, could provide early insights.[8] They are one of the first generations of left-behind children in modern China as a result of the mass migration of workers during their childhood years in the 1940s–50s from southern China to Hong Kong and neighbouring regions.[8] We previously showed that, in this group, parental separation during childhood was associated with depression decades later in adulthood.[8] If these associations are similarly observed in contemporary left-behind children (totalling more than 60 million, or one in four children in China), they could carry far-reaching implications for China's population health in the coming decades.[8,9]

Population mental health can also be shaped by syndemic interactions between emerging and prevailing determinants. For example, the acute effects of COVID-19 and the health consequences of Sino-American geopolitical and trade tensions, superimposed on the chronic mental stressors faced by migrant workers and left-behind children, could bring about a multiplicative mental health burden. A COVID-19-related economic downturn could seriously impact the livelihood, in terms of income loss, job insecurity, and unemployment, and thus mental wellbeing of migrant workers. At the same time, COVID-19 has led to school closures worldwide.[10] School closures could widen inequalities, with left-behind children and children in low-income households being disproportionately affected. Schools might also represent a source of social support, which could buffer the adverse mental health effect of a stressful environment,[11] and school routines are important coping mechanisms for young people with mental health issues.[10] Again, empirical evidence that quantifies such adverse mental health effects and measures the effects of mitigating policies is desperately needed.

Therefore, the case for careful and systematic epidemiological mapping of mental health and wellbeing in China is strong. Specifically, although the burden of disease is important to understand, the study of emerging and prevailing determinants, particularly those that are amenable to policy interventions, is crucial to effecting improvements. This research

should include comprehensive, upstream assessment of all social, economic, political, and physical factors in the environment. Studies should be grounded in theoretical frameworks (eg, convergent model of mental health, diathesis-stress model, social support deterioration model), from conceptualisation to interpretation of findings.[8,9] In addition, the breadth of population mental health requires a multidisciplinary approach, spanning anthropology, epidemiology, laboratory sciences, neuroscience, psychiatry, psychology, public health, and sociology, among others, complemented by the development and maintenance of international research networks and shared databases.[9] Longitudinal population-representative studies are needed to guide appropriate public health responses and resource allocation following major population events.[5,11] There is a need to establish and sustain long-term prospective cohort studies, preferably linked with electronic health records and other routine data sources. Nevertheless, these studies are time-intensive and resource-intensive, and so big data (eg, Weibo) should also be harnessed for real-time monitoring of population mental wellbeing. Finally, a combination of analytic approaches could be used to reduce selective reporting of associations and to improve causal inference (eg, environment-wide association studies, mendelian randomisation, marginal structural modelling).

In sum, China's population size and geography present tremendous challenges and opportunities to improve the mental wellbeing of whole populations. As mental wellbeing is uniquely placed to comprehensively improve population health, further research in this field is essential and timely.[1]

*Michael Y Ni, Candi MC Leung, Gabriel M Leung
nimy@hku.hk

School of Public Health, LKS Faculty of Medicine, The University of Hong Kong, Hong Kong Special Administrative Region, China (MYN, CMCL, GML); State Key Laboratory of Brain and Cognitive Sciences, The University of Hong Kong, Hong Kong Special Administrative Region, China (MYN); Healthy High Density Cities Lab, HKUrbanLab, The University of Hong Kong, Hong Kong Special Administrative Region, China (MYN); Laboratory of Data Discovery for Health (D²4H), Hong Kong Science and Technology Park, Hong Kong Special Administrative Region, China (GML)

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