

questions, and direct observation throughout the training program and supervision.

This variety of teaching and assessment methods ensures a truly blended training package that is more interactive and experiential. As competencies are a new addition to the mhGAP-IG training, principles of competency-based education for future trainers and supervisors are taught in the “training of trainers and supervisors” package⁵. The importance of ongoing supervision has not been overlooked, with inclusion of a participant logbook and multiple supervision options in the training package, to account for all resource settings⁵.

The training package is now freely available online, to begin up-skilling the non-specialist health care workforce in LMIC⁵. Early feedback confirms usability of these resources. More rigorous field-testing may include improvements and retention seen on pre- and post-testing, and a review of validity and reliability, by correlating test results for participants, or between peer and trainer assessments. Such information will help future development of mhGAP-IG training material.

Developing core competencies for the mhGAP-IG V2.0 training package clearly outlines what non-specialist health care providers should be able to do after the training, with ongoing supervision. Core competencies break down the individual steps needed to be able to assess and manage priority MNS conditions, providing a framework for training and assessment. These are supplemented by the WHO’s EQUIP: Ensuring Quality in Psychological Support,

an initiative to develop and disseminate resources that support trained non-specialist health care providers to reach a standard of competency to be able to deliver manualized psychological interventions⁹.

We hope that these materials will be valuable tools in the ongoing training of non-specialist health care providers in delivering care for MNS conditions.

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Anxiety and depression among general population in China at the peak of the COVID-19 epidemic

An epidemic of coronavirus pneumonia (COVID-19) throughout China has been occurring between 2019 and 2020. To combat the contagion, the Chinese government has implemented community-wide containment strategies such as home quarantine, business and public transportation shutdown, and class suspension for all schools. Psychological assistance has been offered to patients with COVID-19 infection and health professionals in Wuhan¹.

The effects of the COVID-19 epidemic and state-imposed massive quarantine on public mental health at the general population level have not been evaluated systematically. Our study aimed to examine the prevalence of anxiety and depression among China’s adult population at the peak of the COVID-19 epidemic and identify the stressors associated with these disorders.

We performed a nationally representative online survey of Chinese residents aged ≥18 years through Wenjuanxing, a web-based survey company. A stratified sampling method was used, and the sample population was randomly distributed in all China’s provinces and municipalities. Subjects with pre-existing psychiatric disorders were excluded.

A standardized questionnaire collected information on socio-demographic characteristics, time spent on news related to

COVID-19 per day, and perceived sources of stress. The severity of anxiety and depression was assessed using the Generalized Anxiety Disorder-7 (GAD-7) and the Patient Health Questionnaire-9 (PHQ-9), respectively. A cut-off total score of 8 was used for both GAD-7 and PHQ-9 to obtain the optimal sensitivity and specificity^{2,3}. The protocols were approved by the Ethical Committee of Changzhi Medical College.

The sample size was calculated by assuming that the prevalence of anxiety and depression would be 4% in China⁴. This would require the sample size to be roughly 4,100 to achieve the margin of error of 15%. The survey was conducted between February 9 and February 16, 2020. We used descriptive statistics and Mann-Whitney tests or χ^2 tests for bivariate analysis. The associations between the above-mentioned variables and the occurrence of anxiety and depression were determined by multinomial logistic regression. All analyses were performed in Prism 8.3.

A total of 5,033 individuals (1,676 men and 3,357 women; 40.9% living in provinces with at least 220 coronavirus cases) completed the questionnaire (response rate: 78.1%). The prevalence of anxiety or depression or both was 20.4% (1,029 of 5,033). The median total score on GAD-7 was 10 (interquartile range, IQR: 9-14). The median total score on PHQ-9 was 9 (IQR: 8-13).

The occurrence of anxiety and/or depression was significantly associated with time spent on COVID-19 related news per day (odds ratio, OR=1.61, 95% CI: 1.42-1.84, $p<0.001$). The prevalence of depression and/or anxiety was 17.8% among those spending less than 5 min per day on COVID-19 related news, and 27.9% among those who spent more than one hour.

Three psychosocial stressors were significantly associated with the development of both anxiety and depression: "I worry about myself and my loved ones being infected by COVID-19" (OR=1.95, 95% CI: 1.54-2.49 for anxiety; OR=1.24, 95% CI: 1.04-1.50 for depression), "I worry about my income, job, study or ability to pay the loan being affected" (OR=1.38, 95% CI: 1.13-1.68 for anxiety; OR=1.58, 95% CI: 1.35-1.86 for depression), and "Home quarantine causes great inconvenience to my daily life" (OR=1.31, 95% CI: 1.04-1.64 for anxiety; OR=1.42, 95% CI: 1.18-1.70 for depression).

In summary, our study revealed that the COVID-19 epidemic caused a sharp increase in the prevalence of anxiety and depression among the general adult population in China, compared to the prevalence of 4% in 2019⁴. The amount of time spent on news related to COVID-19 was significantly associated with the occurrence of these mental health problems, which is likely explained by excessive media coverage⁵.

The financial burden caused by massive quarantine was one

of the primary stressors related to both anxiety and depression. Besides psychological interventions, financial aid such as wage subsidy, tax exemption, and extended loan repayment may help reduce the anxiety and depression in the general population.

Our study was conducted around the peak of the COVID-19 epidemic⁶. A longitudinal follow-up would be helpful to track the changes in anxiety and depression levels at different stages of the epidemic.

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Preventing suicide in the context of the COVID-19 pandemic

The impact of the COVID-19 pandemic on the labour market, as well as the government's response to mitigate risk via social isolation and quarantine, has resulted in the greatest and most rapid change in the employment sector ever recorded in the US. Notwithstanding emergency government financial response, it is anticipated that a significant percentage of the labour market will contract¹. Moreover, the predicted increase in unemployment is expected to approximate, and perhaps exceed, that reported during the Great Depression lasting from 1929 to 1939 (i.e., 24.9%)². The foregoing rapid rise in unemployment and associated economic insecurity is likely to significantly increase the risk for suicide.

In fact, during the most recent economic recession, a 1% rise in unemployment was associated with a rise in the suicide rate of 0.99% in the US (95% CI: 0.60-1.38, $p<0.0001$)³. Similarly, each percentage point increase in unemployment was accompanied by a 0.79% rise in suicide (95% CI: 0.16-1.42, $p=0.016$) in individuals 65 years of age or younger in Europe (e.g., Spain, Greece)⁴. During the 1997-1998 Asian economic recession, unemployment was a critical determinant mediating the increase in suicides in Japan, Hong Kong, and South Korea⁵.

We used time-trend regression models to assess and forecast excess suicides attributable to the economic downturn following the COVID-19 pandemic. Suicide mortality was estimated for three possible scenarios: a) no significant change in unemployment rate (i.e., 3.6% for 2020, 3.7% for 2021); b) moderate in-

crease in projected unemployment rate (i.e., 5.8% for 2020, 9.3% for 2021), mirroring unemployment rates in 2008-2009; and c) extreme increase in projected unemployment rate (i.e., 24% for 2020, 18% for 2021).

The annual suicide mortality rate accelerated in the US by 1.85% (95% CI: 1.70-2.00, $p<0.0001$) between 1999 and 2018. We found that a percentage point increase in unemployment was associated with an increase in suicide rates of 1.00% (95% CI: 1.02-1.06, $p<0.0001$) between 1999 and 2018. The suicide rate was 14.8 per 100,000 in 2018 (N=48,432).

In the first above-mentioned scenario (i.e., unemployment rate remains relatively consistent), the predicted suicide rates per 100,000 are 15.7 (95% CI: 15.3-16.1) in 2020 and 16.2 (95% CI: 15.7-16.8) in 2021. The foregoing suicide rates would result in 51,657 suicides in 2020 and 53,480 in 2021 (assuming 2019 population size of 329,158,518). In the second scenario (i.e., moderate increase in projected unemployment rate), suicide rates per 100,000 will increase to 16.9 in 2020 (95% CI: 16.4-17.5; N=52,728) and 17.5 in 2021 (95% CI: 16.8-18.2; N=55,644). This second scenario would result in a total of 3,235 excess suicides over the 2020-2021 period, representing a 3.3% increase in suicides per year (when compared to the 2018 rate of 48,432). In the third scenario (i.e., extreme increase in projected unemployment rate), suicide rates per 100,000 are projected to increase to 17.0 in 2020 (95% CI: 16.6-17.5; N=56,052) and 17.4 in 2021 (95% CI: 16.8-18.0; N=57,249). This rise in suicide rate would result in 8,164 excess