



Contents lists available at ScienceDirect

The Lancet Regional Health - Western Pacific

journal homepage: www.elsevier.com/locate/lanwpc

Commentary

Progress in mental health research and service provision in China: Lessons learnt from COVID-19 and SARS epidemics

Wen Li^{a,b,c,#}, Yuan Yang^{a,b,c,#}, Qinge Zhang^{d,#}, Ling Zhang^{d,#}, Teris Cheung^e, Chee H. Ng^{f,*}, Yu-Tao Xiang^{a,b,c,*}

^a Unit of Psychiatry, Institute of Translational Medicine, Faculty of Health Sciences, University of Macau, Macao SAR, China

^b Centre for Cognitive and Brain Sciences, University of Macau, Macao SAR, China

^c Institute of Advanced Studies in Humanities and Social Sciences, University of Macau, Macao SAR, China

^d The National Clinical Research Center for Mental Disorders & Beijing Key Laboratory of Mental Disorders, Beijing Anding Hospital & the Advanced Innovation Center for Human Brain Protection, Capital Medical University, Beijing, China

^e School of Nursing, Hong Kong Polytechnic University, Hong Kong SAR, China

^f Department of Psychiatry, The Melbourne Clinic and St Vincent's Hospital, University of Melbourne, Richmond, Victoria, Australia

ARTICLE INFO

Article history:

Received 28 October 2020

Revised 29 November 2020

Accepted 3 December 2020

Available online 29 January 2021

The Novel Coronavirus Disease 2019 (COVID-19 hereafter) was first reported in Wuhan, China at the end of 2019. In 2003, China was also struck by another coronavirus disease, the Severe Acute Respiratory Syndrome (SARS). COVID-19 and SARS have similar routes of transmission and clinical manifestations, although COVID-19 is more contagious and has a longer incubation period. Mental health problems are common during epidemics due to the fear of contagion and psychological consequences of a novel and highly infectious disease. In addition, stringent preventive measures and countless negative reports in mass media may trigger psychological problems or worsen pre-existing mental disorders.

During the COVID-19 pandemic in China, mental health problems, such as psychological distress, depressive, and anxiety symptoms were common in the general population [1]. Compared to the general population, health professionals were at higher risk to suffer from psychological disturbances, due to heavy workload and close contacts with COVID-19 cases. Commonly reported psychological comorbidities in frontline health professionals included psychological distress, depression, anxiety, insomnia, obsessive-compulsive symptoms, and somatization [2]. Similarly, confirmed cases with COVID-19 also suffered from negative emotions, insomnia, and mental distress due to the physical effects of the infection, and the fear and stigma of the disease [3]. During the SARS

outbreak, mental health problems were reported among frontline healthcare workers, confirmed/suspected SARS cases, general population, and certain sub-populations (e.g., children and pregnant women) in China as well [3].

Psychological interventions and provision of mental health services were relatively limited and delayed during the 2003 SARS outbreak in China. In 2003, most hospitals in China were lacking in mental health-related professionals. Relevant professional guideline of mental health care for patients with SARS was released by the national health authority on June 3, 2003 [6], almost six months after the outbreak. This guideline included the indications for psychiatric consultation, use of psychiatric medications, and general preventive principles to reduce mental distress by increasing communications with the outer world, distracting oneself from the disease, improving clinical environment, and promoting patient recovery from SARS disease.

However, health authorities implemented a range of mental health services at a very early stage in China during the COVID-19 pandemic. For instance, on January 26, 2020, the emergency psychological crisis interventions were integrated into the overall deployment of epidemic prevention and control by the National Health Commission of China with official instructions. In addition, major psychiatric and psychological academic associations and psychiatric institutions responded quickly with relevant national instructions. Specific guidelines and expert consensus were developed [4]. The importance of timely psychological interventions (e.g., counselling and psychotherapy) have been emphasised in emergency mental health services during the COVID-19 epidemic.

* Corresponding authors.

E-mail addresses: cng@unimelb.edu.au (C.H. Ng), xyutly@gmail.com (Y.-T. Xiang).

These authors contributed equally to this work.

Apart from on-site psychological interventions, online counselling services were also widely adopted as part of the telemedicine services, as recommended recently [5]. For instance, free 24/7 psychological hotlines were established in all provinces of China, while e-platforms for psychological assistance were also set up by regional psychiatric institutions and health service companies (e.g., Alibaba and Haodaifu) [4]. Similar to those with physical diseases, Internet-based consultations, drug prescriptions, and delivery services were also provided for patients with severe mental illnesses.

Although progress has been made, mental health services during the COVID-19 pandemic are still facing many challenges. First, the effectiveness of online mental health services has not been fully evaluated. For instance, only half of the clinically stable patients with COVID-19 in Wuhan considered the online psycho-educational resources and counselling being helpful [7]. Due to insufficient deployment of licensed counsellors and psychotherapists in many seriously affected areas, unqualified volunteers and those with limited psychological training were working in front-line clinical settings to provide online counselling services, which could compromise the service quality. In addition, it was difficult to effectively integrate currently available health resources and community services into telemedicine services [5]. Second, mental health services focussed mainly on patients with COVID-19, quarantined cases, frontline medical staff, and students. Specific psychological interventions, such as cognitive behavioural therapy and mindfulness-based cognitive therapy [8], should be developed for socially vulnerable groups, such as psychiatric patients, as unlike healthy controls they often suffer from psychiatric symptoms and other problems such as cognitive impairment [9], and the elderly, people with disabilities, and migrant workers.

Clinical and epidemiological studies can increase the understanding of the patterns and severity of mental health problems in different populations during disease epidemics, which can inform mental health policies and service planning. An observation of the mental health research during COVID-19 in China is the extensive use of online survey methods using e-platform, such as the Questionnaire Star or SurveyMonkey, which may be attributed to the rapid infrastructure construction of information network and the popularization of smartphones in China in recent years. Compared to face-to-face interviews which were predominantly used during the SARS outbreak when Internet use in China was very low, online surveys during epidemics were not only convenient and flexible but also free of any risk of contagion. Most studies on SARS were cross-sectional, and longitudinal studies were scant; there was insufficient empirical evidence on the appropriate long-term and sustainable mental health service programs post-epidemics. Longitudinal follow-up studies should be implemented to illustrate the dynamic change of mental health status in different subpopulations after the pandemic [10].

Mental health problems are common and need to be addressed during any disease outbreak, as is evident during COVID-19 and SARS epidemics. Mental health services and research during the recent COVID-19 epidemic have advanced substantially in China, although certain challenges remained. Lessons learnt during the development of mental health service provision and research in China may be useful to address the mental health chal-

lenges of future pandemics confronting China and other countries globally.

Declaration of Competing Interest

The authors declare no conflicts of interest.

Author contribution

Yu-Tao Xiang and Chee H Ng developed the initial idea. Wen Li and Yuan Yang developed the first draft. Qinge Zhang and Ling Zhang provided extensive comments to the first and subsequent drafts. Teris Cheung and Chee H Ng provided extensive comments to subsequent drafts.

Acknowledgement

N/A.

Funding sources

The study was supported by the National Science and Technology Major Project for investigational new drug (2018ZX09201-014), the Beijing Municipal Science & Technology Commission (No. Z181100001518005), and the University of Macau (MYRG2019-00066-FHS).

References

- [1] Wang C, Pan R, Wan X, et al. Immediate psychological responses and associated factors during the initial stage of the 2019 Coronavirus Disease (COVID-19) epidemic among the general population in China. *Int J Environ Res Public Health* 2020;17(5).
- [2] Pappa S, Ntella V, Giannakas T, Giannakoulis VG, Papoutsis E, Katsaounou P. Prevalence of depression, anxiety, and insomnia among healthcare workers during the COVID-19 pandemic: a systematic review and meta-analysis. *Brain Behav Immun* 2020;88:901–7.
- [3] Rogers JP, Chesney E, Oliver D, et al. Psychiatric and neuropsychiatric presentations associated with severe coronavirus infections: a systematic review and meta-analysis with comparison to the COVID-19 pandemic. *The Lancet Psychiatry* 2020;7(7):611–27.
- [4] Li W, Yang Y, Liu Z-H, et al. Progression of mental health services during the COVID-19 outbreak in China. *Int J Biol Sci* 2020;16(10):1732–8.
- [5] Tran BX, Hoang MT, Vo LH, et al. Telemedicine in the COVID-19 Pandemic: motivations for integrated, interconnected, and community-based health delivery in resource-scarce settings. *Front Psychiatry* 2020;11:564452.
- [6] China.org.cn. Ministry of health released the "principles of prevention and treatment of mental disorders in SARS patients". http://www.chinacomcn/zhuanti2005//txt/2003-06/04/content_5340867.htm (access at May 14, 2020) 2003.
- [7] Bo H-X, Li W, Yang Y, et al. Posttraumatic stress symptoms and attitude toward crisis mental health services among clinically stable patients with COVID-19 in China. *Psychol Med* 2020:1–7.
- [8] Ho CS, Chee CY, Ho RC. Mental Health Strategies to Combat the Psychological Impact of COVID-19 Beyond Paranoia and Panic. *Ann Acad Med Singap* 2020;49(3):155–60.
- [9] Hao F, Tan W, Jiang L, et al. Do psychiatric patients experience more psychiatric symptoms during COVID-19 pandemic and lockdown? A case-control study with service and research implications for immunopsychiatry. *Brain Behav Immun* 2020;87:100–6.
- [10] Wang C, Pan R, Wan X, et al. A longitudinal study on the mental health of general population during the COVID-19 epidemic in China. *Brain Behav Immun* 2020;87:40–8.