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Psychological stress responses to COVID-19 and adaptive strategies in China

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Abstract

The novel coronavirus disease 2019 (COVID-19) developed into a pandemic on March 11. COVID-19 not only brought life crisis, but also incurred psychological stress: tension, anxiety, fear and despair among affected populations. How to help people overcome traumatic stress reactions and get out of psychological crisis has become a public concern that needs to be resolved in time. This article reported the psychological responses caused by the COVID-19 epidemic in China based on relevant experience and studies. The anti-epidemic measures of self-quarantine and social-distancing were deployed to contain the spread of COVID-19, but inevitably caused a certain extent of side effect: frustration and anxiety in the general public. Especially, the front-line medical rescue staff and COVID-19 patients were more susceptible to developing psychological disorders. Correspondingly, adaptive strategies and public health policies were rapidly implemented in China to deal with outbreak-caused mental stress. The psychological impact of COVID-19 and coping strategies adopted in China provided warning and reference for countries that are and going to be affected by this natural disaster.

1. Introduction

At the beginning of 2020, the novel coronavirus disease 2019 (COVID-19) suddenly broke out in Wuhan, China. On March 11, this coronavirus with unknown origin developed into a pandemic worldwide. COVID-19 brought not only life crisis, but also psychological stress: tension, anxiety, sadness and fear among the public, patients and medical rescue workers. How to help people overcome traumatic stress reactions and get out of psychological crisis has become an urgent issue that needs to be solved timely.

2. Quarantine-caused anxiety and frustration in the general public

Human-to-human transmission of COVID-19 is swift if without appropriate respiratory protection. At some point early in the outbreak, the basic reproductive ratio ($R_0$) for COVID-19 was 2.68. To interrupt the transmission of COVID-19, most regions in China initiated a first-level response to major public health emergency on January 25 (Tian et al., 2020). Closed-off management was implemented in most communities (villages) in China. Residents were required to stay at home as long as possible and reduce crowding. Migrant residents and visitors must take a 14-day self-quarantine. Close contacts must receive a 14-day medical observation at home or designated places (Chen, Yang, Yang, Wang, & Barnighausen, 2020; Chen, et al., 2020).

However, a long period of quarantine inevitably led to psychological stress responses. Individuals restricted at home tended to use social media to obtain the outbreak news, therefore were readily exposed to misleading news and unproven rumors (Torales, O’Higgins, Castaldelli-Maia, & Ventriglio, 2020). Their understanding of the COVID-19 situation easily fell into bias and thus constantly being bothered and scared. Delay in resuming work and persistence of epidemic caused anxiety about employer’s layoff or bankruptcy. Some people suffered from high body temperature due to continuous anxiety and irritability, and couldn’t help measuring body temperature repeatedly. As such, many residents experienced nervousness, frustration, fear, and mood swings (Liu et al., 2020; Xiang et al., 2020). A nationwide survey reported that, under the threat of COVID-19, the prevalence of psychological distress is up to 35% among the general population in China (Qiu et al., 2020).

3. Mental distress of the front-line medical staff and patients

During the early stage of outbreak, the number of patients increased rapidly in Wuhan, resulting in a serious shortage of med-
Medical resources. The medical rescue workers faced a large influx of patients, shortage of protective materials and high risk of infection. They experienced long-term and high-intensity of rescue work in the isolated hospital environment. Physical and mental exhaustion, sleep disturbances and body discomfort were very common among them. Under continuous stimulation of pressures, many medical workers developed psychological problems such as anxiety, frustration, anger, fear and despair (Q. N. Chen, et al., 2020). As for the COVID-19 patients, they not only experienced physical pain together with unprecedented death threat, but also worried about their relatives got infected, therefore were more likely to fall into sorrow, fear and loneliness (Xiang et al., 2020). Numerous patients were in need of psychological care and mental crisis interventions. Medical staff needed to help patients maintain a positive and optimistic mentality, strengthen their confidence and encourage them to cooperate with treatment. In some cases, it was required to evaluate patient’s potential risks of self-injury, attack and suicide. However, the front-line health workers are not professional psychologists; they need training on psychological skills or to consult psychiatrists (Q. N. Chen, et al., 2020).

4. Coping strategies adopted in China

To cope with epidemic-associated stressful reactions, psychological crisis interventions were initiated in China. On January 27, the National Health Commission of China issued the "Principles for Emergency Psychological Crisis Intervention for Pneumonia Epidemic of New Coronavirus Infection", requiring psychological crisis intervention to be integrated into the control of COVID-19. On February 7, issued the "Guidelines for the Psychological Adjustment of the New Coronavirus Pneumonia Epidemic", which sorted out the adjustment recommendations for ten categories of individuals, including home-isolation personnel, patients and their relatives, helping everyone get out psychological dilemma. Psychological assistance hotlines were soon deployed across the country (Liu et al., 2020). Mental health assessment and intervention system was established for front-line medical workers (Zhang, Sun, Latour, Hu, & Qian, 2020). However, difficulties were encountered during policy implementation: 1) the number of mental health workers was unable to meet the rapidly increasing demand for psychological assistance; 2) and the organization method of interventions needed to be improved (Duan & Zhu, 2020).

These strategies to COVID-19 stress and encountered difficulties during operation provided important implications for other countries that are and going to be affected by this contagious diseases.

Author contributions

Mingke Song conceptualized this study, searched literature, collected materials and drafted this manuscript.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

Mingke Song and this study is supported by the National Natural Science Foundation of China, China (No. 91949116, No. 81873807, No. 81671375) and Innovative Research Team of High-level Local Universities in Shanghai, China.

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