



# HHS Public Access

Author manuscript

*Psychol Trauma*. Author manuscript; available in PMC 2021 August 01.

Published in final edited form as:

*Psychol Trauma*. 2020 August ; 12(Suppl 1): S25–S27. doi:10.1037/tra0000618.

## Need for a Population Health Approach to Understand and Address Psychosocial Consequences of COVID-19

**Shufang Sun,**

Brown University Alpert Medical School

**Danhua Lin,**

Beijing Normal University

**Don Operario**

Brown University School of Public Health

### Abstract

This commentary paper provides observations on the psychosocial consequences of the coronavirus disease 2019 (COVID-19) among people in China and articulates a population health perspective to understand and address identified issues. We highlight key psychosocial effects of COVID-19, such as anxiety, insomnia, and trauma response, in the context of salient factors that shape Chinese people's psychological experiences, including the availability of internet and technology, large-scale quarantine, economic impact, and the rise of xenophobia globally. Further, from a population health perspective, we make recommendations in COVID-19 related research and interventions that aim to promote the psychosocial health of Chinese people.

### Keywords

COVID-19; psychological health; trauma; China; health promotion

---

The outbreak of coronavirus disease 2019 (COVID-19) which emerged in December 2019 in Wuhan, Hubei province, China (Wang, Horby, Hayden, & Gao, 2020), has affected 210 countries and territories as of April 10<sup>th</sup>, 2020. In China, it has revived people's memories of another epidemic linked that emerged within the country - severe acute respiratory syndrome (SARS), caused by another coronavirus in 2003. Similar to SARS, COVID-19 has been met with public concerns, within China and globally, about levels of transparency and preparedness by state authorities in the initial phase followed by harsh methods to contain the outbreak, including isolation and quarantine enforcement. Several contextual factors give rise to distinct experiences associated with COVID-19, which prompt a need to consider population-level psychosocial consequences for the people of China. To date, COVID-19 has

---

Correspondence should be addressed to Shufang Sun, Department of Psychiatry and Human Behavior, Brown University, 167 Point St., Providence, RI 02906, USA. shufang\_sun@brown.edu.

Author note: Shufang Sun, Department of Psychiatry and Human Behavior, Brown University Alpert Medical School; Danhua Lin, Department of Psychology, Beijing Normal University; Don Operario, Department of Behavioral and Social Sciences, Brown University School of Public Health

Conflict of Interest:

None of the authors have any conflict of interest to declare.

far surpassed the death toll of the 2003 SARS outbreak and caused the large-scale quarantine of millions of people in China. Unlike 2003, internet availability and e-technology have become integrated components of people's communication, information sources, and daily life. In addition, China has become a major economic powerhouse, contributing to one fifth of the world's GDP in 2019, compared to 4% in 2003. Further, the recognition of COVID-19 as a global pandemic and the rise of xenophobia and anti-Chinese rhetoric in many countries may also shape the psychological experiences of Chinese people during this public health crisis.

Herein, we report observations regarding potential the impact of COVID-19 on psychosocial health for people in China, as well as the need for a population health approach to understand and address these issues in order to shift the population's "bell curve" of psychological health toward the direction of well-being. These observations and arguments were partially informed by preliminary analysis of a focus group ( $n = 14$ ) that authors conducted in March 2020 with Chinese college and graduate students during the period of state-mandated quarantine and who reported psychological distress (anxiety or depression symptoms). We describe key psychosocial consequences as well as influential contextual factors such as social media, economic impact, and the rise of xenophobia globally. Further, we note the need for more research and evidence-based practice to address these psychosocial consequences.

The psychosocial effects of COVID-19 for people in China may include panic, fear, grief, and trauma reactions. Although COVID-19 is considered a health crisis that will eventually be resolved, its psychosocial effects are likely to persist far beyond the current outbreak. A population health perspective views the psychosocial effects of COVID-19 as normative and adaptive, shaped by people's sociocultural, historical, and political environment. It differs from a traditional medical approach of psychiatric diagnosis and subsequent treatment, and calls for the development of contextually relevant population-level interventions to address people's psychosocial responses to the current COVID-19 epidemic, which might be potentially useful for supporting population health in future epidemics. Promoting psychosocial health and effective coping in the context of emergency epidemic outbreaks is especially important in China, and elsewhere in the world, where the mental health profession is underdeveloped and stigma of psychiatric illness runs deep (Xu, Huang, Kösters, & Rüsck, 2017). Further, as the psychosocial consequences of COVID-19 are likely to outlive the virus itself and continue to pervade other aspects of society and people's lives, effective approaches need to move beyond a crisis intervention perspective to address long-term effects of COVID-19 on the population's well-being.

A population health perspective recognizes that people may experience varied types of psychosocial challenges as COVID-19 continues to spread. Anxiety, fear, and panic are common reactions when facing an unknown epidemiological outbreak (Gilman, 2010). As the outbreak develops, initial anxiety may evolve into anger, grief, helplessness, and numbness. The ambiguous nature of COVID-19 may intensify these responses and fuel people's desire for more information and relevant news. Given current technological accessibility and limited interpersonal contact due to quarantine measures, information seeking occurs largely via internet sites or social apps. Excessive information-seeking,

however, could drive smartphone/web addiction and further escalate anxiety as social cohesion is reduced. In our focus group research with Chinese college students who experience distress during quarantine, preliminary results of qualitative analysis revealed themes in anxiety and depression symptoms, reduced social support, poor sleep quality, and internet addiction. Participants described excessive internet and smartphone usage as a common avoidance coping for anxiety, disrupted social life, and insomnia. Participants also noted smartphone/internet-based avoidant coping “feed off” anxiety and insomnia related issues (e.g., excessive news watching on COVID-19 could further fuel one’s anxiety). In addition, due to the lack of early transparency by authorities, people may experience anxiety and distrust toward their medical system. As such, they may be particularly vulnerable to misinformation and unfounded conspiracy theories about COVID-19 (Atlani-duault, Ward, Roy, Morin, & Wilson, 2020). These psychosocial experiences may function as additional barriers for effective public health interventions to contain COVID-19.

COVID-19 has affected millions of people and disrupted the functioning of Chinese society, leading the government to declare a “people’s war” on the virus. Consistent with a war analogy, the public may be experiencing collective trauma due to events associated with COVID-19. On an individual level, trauma symptoms may occur through direct experiences and witnessing of COVID-19-related medical events, as well as indirect exposure through media on deaths and disorder due to COVID-19. On a population level, memories and narratives of this traumatic event can impact subsequent collective coping, group identity, and meaning-making related to the outbreak, as well as future public health policies (Updegraff, Silver, & Holman, 2008). Unlike other types of natural disasters and community traumas, a large proportion of people have been in isolation. The impact of isolation and lack of physical community on psychosocial experiences during this outbreak are yet to be understood.

Economic consequences of COVID-19 are likely to affect psychosocial health at the population level. Suicide rates could rise during an economic recession, and families from lower and middle-class backgrounds may be particularly affected by risk factors such as unemployment (Nordt, Warnke, Seifritz, & Kawohl, 2015; Reeves et al., 2012). Economic hardships will also likely influence people’s willingness to seek professional medical and psychosocial help. For instance, participants in our research described financial hardship affecting their families as a major source of distress. Some also noted worries about unemployment when they graduate from college in the near future.

The recent rise of anti-Chinese rhetoric and xenophobia globally also likely affect the well-being of millions Chinese people who work, study, and live overseas. For instance, the Federal Bureau of Investigation (FBI) recently warned the potential surge in hate crimes against Asians and Asian Americans in the U.S. Discrimination and stigma may further escalate the adverse psychosocial health outcomes of affected Chinese individuals, such as isolation, thwarted belonging, fear and anxiety. For instance, two Chinese students in our focus group studying overseas shared increased isolation and difficulty allocating social support. Such environmental factors may also affect behavioral health: anecdotal records suggest that fear for one’s safety among Chinese people overseas may affect their comfort with wearing masks in public.

We recognize the need for psychological interventions to address population responses to the COVID-19 outbreak in China (Xiang et al., 2020). To date, several approaches have been promoted in China to enhance psychological wellness and coping (Duan & Zhu, 2020; Liu et al., 2020), such as online counseling, volunteer-based crisis intervention, and mind-body treatments like mindfulness. For instance, several universities and psychotherapy agencies (e.g., the psychology department of Beijing Normal University) have been offering free hotlines for populations highly impacted by COVID-19 (e.g., frontline healthcare workers).

In summary, this article elaborates salient COVID-19 related psychosocial health consequences among Chinese people as well as several contextual factors affecting their health. From a population health perspective, we make the following recommendations in COVID-19 related research and interventions aiming to promote the psychosocial health of Chinese people:

1. We argue for the need to further understand the impacts of emergency epidemiological outbreaks on normative psychosocial functioning. Population-level data is needed to understand the psychosocial health sequelae of the COVID-19 outbreak, and such research could play a crucial role in response for future outbreaks of similar scale and severity.
2. Context-informed, evidence-based interventions are in need to effectively engage the public beyond a traditional mental health treatment approach, normalize people's experiences, and promote population health. As the population are experiencing increased vulnerability to psychological distress, this may be an opportunity to raise the public's awareness of psychological health and enhance strategies during and beyond quarantine to enhance population well-being (e.g., intentional use of smartphone/internet, promoting online-based social support).
3. As COVID-19 has now developed into a global pandemic, it is also critical to consider long-term effects and develop interventions that can support population wellness beyond the time of crisis and beyond the boundaries of China (e.g., to reach affected immigrants overseas).
4. Comprehensive approaches that can address economic stress as a mental health prevention and intervention strategy are also needed. Relevant global and local climate factors (e.g., anti-Chinese sentiment) may also need to be addressed in order to optimize population health of affected Chinese people, such as through anti-discrimination advocacy efforts.

## Acknowledgements

Work by the first author was supported by the National Institute of Mental Health (T32MH078788).

## References

- Atlani-duault L, Ward JK, Roy M, Morin C, & Wilson A (2020). Tracking online heroisation and blame in epidemics. *The Lancet Public Health*. doi:10.1016/S2468-2667(20)30033-5
- Duan L, & Zhu G (2020). Psychological interventions for people affected by the COVID-19 epidemic. *The Lancet Psychiatry*. doi:10.1016/S2215-0366(20)30073-0

- Gilman SL (2010). Moral panic and pandemics. *Lancet*, 375(9729), 1866–1867. doi:10.1016/S0140-6736(10)60862-8 [PubMed: 20521345]
- Liu S, Yang L, Zhang C, Xiang Y, Liu Z, Hu S, & Zhang B (2020). Online mental health services in China during the COVID-19 outbreak. *The Lancet Psychiatry*. doi:10.1016/S2215-0366(20)30077-8
- Nordt C, Warnke I, Seifritz E, & Kawohl W (2015). Modelling suicide and unemployment: A longitudinal analysis covering 63 countries, 2000–11. *The Lancet Psychiatry*, 2(3), 239–245. doi:10.1016/S2215-0366(14)00118-7 [PubMed: 26359902]
- Reeves A, Stuckler D, McKee M, Gunnell D, Chang S. Sen, & Basu S, (2012). Increase in state suicide rates in the USA during economic recession. *The Lancet*, 380(9856), 1813–1814. doi:10.1016/S0140-6736(12)61910-2
- Updegraff JA, Silver RC, & Holman EA (2008). Searching for and finding meaning in collective trauma: Results from a national longitudinal study of the 9/11 terrorist attacks. *Journal of Personality and Social Psychology*, 95(3), 709–722. doi:10.1037/0022-3514.95.3.709 [PubMed: 18729704]
- Wang C, Horby PW, Hayden FG, & Gao GF (2020). A novel coronavirus outbreak of global health concern. *The Lancet*. doi:10.1016/S0140-6736(20)30185-9
- Xiang Y-T, Yang Y, Li W, Zhang L, Zhang Q, Cheung T, & Ng CH (2020). Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. *The Lancet Psychiatry*. doi:10.1016/S2215-0366(20)30046-8
- Xu Z, Huang F, Kösters M, & Rüsçh N (2017). Challenging mental health related stigma in China: Systematic review and meta-analysis. II. Interventions among people with mental illness. *Psychiatry Research*, 255(5 2016), 457–464. doi:10.1016/j.psychres.2017.05.002 [PubMed: 28780128]