

Original Paper

A Meta-analysis of the Effect of COVID-19 on Mental Health in China

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Abstract

This article focuses on the effects of COVID-19 and policies in China. In December 2019, an unexpected epidemic emerged. As of April 2021, there were 2.89 million deaths from COVID and 133 million cases of SARS-CoV-2 infection, the virus that causes COVID (Mathieu et al., 2021). The mental health impact of this epidemic cannot be underestimated; it has brought stress, anxiety and depression to medical staff, infected patients, and uninfected people. Much of this stress led to suicide.

Keywords

COVID-19, mental health, China situation, quarantine, polices, suicide rates

The incidence and relative risk of neurologic and psychiatric diagnoses were also increased by 32% in those with non-severe COVID-19 compared with a matched cohort of patients with other health conditions (e.g., influenza) occurring contemporaneously during the COVID-pandemic. A meta-analysis of studies around the world showed that the overall prevalence of depression, anxiety, and sleep disturbances among COVID-19 survivors was 45%, 47%, and 34%, respectively. Whereas, those levels were 33%, 31%, and 20%, respectively, in the general non-COVID population during the pandemic (Substance Abuse and Mental Health Services Administration, 2023).

In addition, restrictive policies were implemented. With the rapid spread of SARS-CoV-2 arose the strict implementation of widespread social restrictions (e.g., quarantine, social distancing measures), which initiated and exacerbated behavioral and cognitive symptoms in a substantial proportion of the population (Substance Abuse and Mental Health Services Administration, 2023).

Analysis:

The article investigates the effect of COVID on mental health including the effect of quarantine, suicide rate and situation in China. The article primarily focuses on the Chinese context, that uncovers the reasons behind the relatively severe prevalence of mental disorders subsequent to the COVID-19

pandemic. The purpose is to shed light on the gravity of these disorders, providing insights that can contribute to preventing a recurrence of a similar situation.

The effect of quarantine on mental health

For those people who get infected and are required to follow the rules of quarantine, the situation is worse due to various negative social effects. Durkheim emphasized that social connectedness is a critical factor in emotional health and social stability (Wang, Song, Hu, et al. 2021). The policies, especially quarantine, break the social connectedness between people. A study shows that there is a higher chance of depression for people who were quarantined. The study is case-controlled focusing on symptoms between the population in quarantine and the general population during the pandemic. The result showed clearly that:

Population in quarantine had a higher level of depressive, anxiety, and insomnia symptoms than controls. Specifically, they were at a higher risk prevalence of depression, anxiety, and insomnia, especially the severity of depression, when compared to controls (Wang, Song, Hu, et al. 2021).

After people are infected with the viruses, they need to face not only physical discomfort, but also nonphysical influences including: “Isolation after being diagnosed with the disease, stigma and discrimination, prolonged hospitalization, and a lack of social support” (Hossain et al., 2020). These will affect a person’s mental state negatively, leading to depression, anxiety and even increasing of suicide rate. As Tang’s report examined PTSD and depressive symptoms in 2,845 home quarantined participants from six universities using PTSD Checklist Civilian Version and PHQ-9, and data on sleep duration showed:

The prevalence of PTSD and depression was 2.7% and 9.0%, respectively. Other mental health problems included feeling extreme fear and short sleep durations (Leo, 2020).

2.7% and 9.0% can be highly influential based on the huge base of population of people getting infected. Also, quarantine does not only take place with people who have been infected by COVID, but also with medical staff. For medical staff, who needed to suffer more due to their particularity of jobs, quarantine has made matters worse.

In the same study, quarantined staff were significantly more likely to report exhaustion, detachment from others, anxiety when dealing with febrile patients, irritability, insomnia, poor concentration, and indecisiveness, deteriorating work performance, and reluctance to work or consideration of resignation (Brooks, Webster, Smith, Woodland, Wessely, Greenberg, & Rubin, 2020).

Suicide rates (December 2019 - July 2023)

Economic uncertainty, mental and physical illness, and burnout brought by COVID are predictive of increasing the suicide rates.

It is important to note that job uncertainty and a shorter duration of employment are associated with a higher risk of suicide among healthcare professionals (Sana et al., 2022).

A recent study in China indicated that 96.2% of recovering COVID-19 patients had significant posttraumatic stress symptoms. These mental issues will automatically increase the suicide rate rapidly

(Leo, 2020).

The epidemic caused various illnesses including coughing, chest distress, loss of taste, fever, diarrhea, and fatigue.

A recent review of the impact of the COVID on the brain show that neurological conditions are present in about 25% of the COVID-19 patients. Many recovering COVID patients have physical symptoms including pain for a long time. Neurological disorders such as ischemic stroke, headache and seizures are associated with suicidal behavior. Physical symptoms, especially pain also increase suicide risk” (Sana et al., 2022).

Suicidal ideation was found to be higher among those with burnout than those without it, according to a cross-sectional survey of 2,734 female nurses working in Taiwanese hospitals. Similarly, burnout was predictive of suicidal ideation in a longitudinal study of U.S. medical students, even when depressive symptoms were not present.

Burnout can also be the result of COVID, especially in health careers. COVID often leads to burnout, and burnout can prefigure suicide.

Until January 2021, systematic searches for English language papers were conducted. Thirty observational studies were found after conducting systematic searches. The pooled overall prevalence of burnout was 52% (Sulmaz, Kamran, Mohammad, Keyvan, Saeed, & Sajjad, 2021).

Where there is a high prevalence of burnout, the suicide rate will increase.

Situation in China:

China’s quarantine policy led to widespread mental health problems. A countrywide survey examined 52,730 Chinese beginning on 31 January 2020 and lasted one month.

The authors found that 53.8% of 1210 respondents rated the psychological impact of the outbreak as moderate or severe (Leo, 2020).

An additional survey that targeted readers of the health page of the Chinese website, “Joybuy.com,” from 28 February 2020 to 11 March 2020 shows a similar result.

Over 40% participants reported mental health symptoms, suggesting a consistently severe mental health burden during the COVID-19 pandemic (Shi et al., 2021).

According to a meta-analysis of PubMed, EMBASE, Scopus, and PsycINFO, practitioners of the health sciences, especially during the COVID epidemic, had a higher chance of manifesting psychological issues. Frontline healthcare workers are doctors, nurses, and other medical personnel who were directly involved in the diagnosis, treatment, or care of patients with confirmed or suspected cases of COVID-19. And second line workers are who were indirectly involved.

Frontline healthcare workers had a higher prevalence of anxiety and a lower prevalence of depression than the those in the second-line. Furthermore, the proportion of moderate–severe depression and anxiety is higher in the frontline (Hao, 2021).

The mental health situation caused by COVID can be attributed to: 1. lack of trust in government; 2. uncertainty and; 3. policies.

The government's initial downplaying of the epidemic's severity eroded public trust in the government's decision-making transparency and competency (Dong & Bouey, 2020).

Trust in authority and government can help lots in these similar situations. The trust general population have in government can bring hope and keep the society stable. However, the falsified data established and wrong decisions made by government broke the trust and brought social instability factors.

The uncertain incubation period of the virus and its possible asymptomatic transmission cause additional fear and anxiety (Dong & Bouey, 2020).

The fear of being affected and being separated from family followed affection makes people feel scared of getting affected. The possibility of contracting the virus both from an object or a person increases the anxiety level.

Unprecedented large-scale quarantine measures in all major cities, which essentially confine residents to their homes, are likely to have a negative psychosocial effect on residents (Dong & Bouey, 2020).

The separation of patients and their families is also a big cause for high level of depression and anxiety. Some of the isolation center does not have an adequate health and housing conditions. The lack of public transportation can also rise a question around how the patients can go back home after isolation. Furthermore, the policy of confining residents to their homes, the situation is worse. The lack of food supply, uncertainty of ending of confine, worry about being infected are factors of mental struggles.

Summary:

As COVID continues to sweep across the world, it presents a significant threat to the mental well-being of the population. The increasing prevalence of depression and anxiety, coupled with a rising suicide rate, are all direct consequences of this pandemic. This article provides relevant data underscores the gravity of these psychological challenges and delves into an analysis of the specific factors contributing to this phenomenon, which include, but are not limited to, the impacts of quarantine and the pervasive uncertainty.

Furthermore, the article places a particular focus on the prevailing situation in China, offering an in-depth examination of the underlying causes. These causes can be categorized into three key aspects: a lack of trust in the government, the pervading uncertainty, and the influence of governmental policies. The general population affected by these issues includes healthcare workers, individuals infected with the virus, as well as those who remain uninfected.

Suggestion for further research:

While this article primarily examines the consequences of the pandemic on mental health, there is a need for further research on mitigating these adverse effects. Those interested in conducting more comprehensive investigations may find it valuable to explore strategies for reducing the pandemic's negative psychological impact. This could encompass initiatives such as enhancing policies to minimize detrimental effects, ensuring access to an adequate food supply during isolation, and fostering a robust and trusting relationship between the government and the people. Such research has the potential to help individuals better cope with similar situations in the future and reduce unnecessary

psychological trauma.

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