

MENTAL HEALTH IMPLICATIONS OF COVID-19: A NARRATIVE REVIEW OF THE LITERATURE



Hina Ayaz Habib¹, Nina Ayaz Habib², Shehzad Hussain³, Mian Mukhtar ul Haq⁴

¹Institute of Clinical Psychology

²Dr. Ishrat ul Ebad Khan Institute of Oral Health Sciences, Dow University of Health Sciences

³Clinical Psychologist, DHG Hospital

⁴Department of Psychiatry, Lady Reading Hospital, Peshawar, Pakistan

Submitted: March 01, 2022

Accepted: September 30, 2022

CORRESPONDENCE: DR. MIAN MUKHTAR UL HAQ E-mail: doctormian@yahoo.co.uk

ABSTRACT

The novel coronavirus disease, which the World Health Organization (WHO) officially designated as COVID-19, originated in Wuhan, China, as a cluster of unexplained pneumonia cases. It has affected countries worldwide and has been classified as a pandemic. To deal with this global health crisis and to curtail the spread of the virus, stringent public health measures have been implemented. There is evidence of a positive correlation between widespread outbreaks of contagious diseases, symptoms of psychiatric illness, and psychological distress.

OBJECTIVE

Considering the need to develop a deeper understanding of COVID-19 to devise strategies to deal with and prevent impact of COVID-19 on mental health, thereby present review is undertaken.

STUDY DESIGN

A narrative review was conducted in May 2020.

RESULT

Findings are suggestive that healthcare workers engaged in providing care to patients affected by COVID-19 are at a risk of developing psychological issues such as vicarious traumatization. With regards to the public, certain populations, including individuals with preexisting mental health issues, are more vulnerable to adverse psychological impacts from COVID-19.

CONCLUSION

To conclude, the review findings highlight the hidden mental health impact of COVID-19 and allow health care workers in all specialties to watch for vulnerable patients, their family members, and colleagues who may be adversely psychologically affected by COVID-19.

KEYWORDS

Mental Health, COVID-19, Health workers, Narrative Review

INTRODUCTION

Though the emergence of infectious diseases is not a completely new phenomenon, as there have been chapters of worldwide pandemics throughout history, in recent times, the spread of pathological agents across borders has been accelerated by globalization, resulting in global pandemics. Its impacts spread beyond adding complexity to containment of infection to psychological, political and economic consequences, giving rise to public health challenges that need to be addressed, urgently.¹ Examples of recent epidemics include Ebola, HIV, H1N1 (Swine flu) and Zika.²

The novel corona virus disease, which the World's Health Organization (WHO) has officially designated as COVID-19, originated in Wuhan, China, as a cluster of unexplained pneumonia cases. COVID-19 has affected various countries across the world and has been categorised as a pandemic.³ To manage the global health crisis and to curtail the spread of the virus, stringent public health measures have been implemented.⁴

A researcher remarked that the number of people whose mental health is affected during a pandemic tends to be higher than those actually affected by the disease or the infection.⁵ Evidence shows that the mental health implications of a pandemic last longer than the pandemic itself.⁶ The economic and psychological cost of pandemics can be difficult to calculate.⁷ Mental health treatment strategies must be improved as economic costs associated with mental health treatments are high. Ensuring mental health means one's physical health will be more robust, resulting in limited loss of productivity during a pandemic.

Mental health professionals across the globe need to have knowledge of such manifestations and their correlates, along with strategies that could aid with their management. These strategies not only encompass the distinct needs of various populations⁸ but also the precautionary or preventive measures that could help prevent the spread of the virus.⁹ The global healthcare research community, as the global healthcare workforce, must be aware of the gaps in the present body of literature that need to be filled with the help of more clinical research and experience. Both the direct and indirect social and psychological effects of COVID-19 pandemic are ubiquitous and could impact mental health not



only in the present but also in the future.¹⁰ The impact of COVID-19 is not restricted to only physical health of individual rather, it extends beyond these. Therefore, in this review, we examine the impact of COVID-19 on the mental health of individuals and highlight gaps in research that may be worthwhile to pursue in the future. Considering to the need to develop a deeper understanding of COVID-19 to devise strategies to address and prevent impact of this pandemic on mental health, the present review is undertaken to achieve the objective.

OBJECTIVE

To examine the impact of COVID-19 on the mental health of individuals.

METHOD

The present article adopts a narrative approach to the literature review. An initial literature search was conducted in May 2020. We applied a standardized search strategy (Table 1) to the PubMed and Google Scholar databases. Boolean operators were used to create various permutations and combinations for the search.

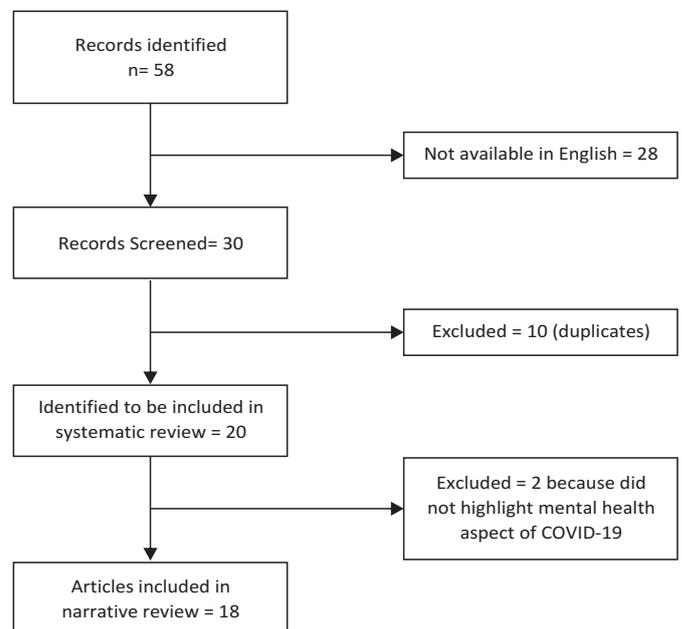
The inclusion criteria were that the articles must be written in English and the studies must deal only with the mental health impact of COVID-19.

Table 1
Keywords used to search the electronic databases

Search query	Keywords
1	COVID-19, novel coronavirus, nCoV
2	Mental health, depression, psychiatry, psychology, anxiety, stress
3	Review of literature, literature review
4	1 AND 2 AND 3

By employing the method outlined above, a total of 58 articles were retrieved. After reviewing those citations, 28 articles were excluded as they were not written in the English. Only the articles written in English language have been made part of the study, which is one of the two inclusion criteria for the present review. The other being, only articles dealing with mental health aspects of COVID-19 and not the ones dealing in any other aspects of it were to be included. Given the nature of topic the research on which is in a stage of infancy it is not possible to conduct a meta-analysis or a formal systematic review therefore editorials, letters to the editor, or commentaries related to COVID-19 and mental health were made part of the review. Resultantly, 18 articles were included in this review. Figure provides a detailed diagrammatical overview of the search process.

Figure: Flow Diagram



FINDINGS

The ongoing COVID-19 pandemic is inducing anxiety, stress, and fear in people, and can adversely impact the psychological health and well-being of people given the unparalleled magnitude of uncertainty surrounding the outbreak.¹¹ Dysphonic mental states can be potentiated due to fear of infection or death or infecting the family if an individual is a possible carrier of the virus.¹² The mental health implications of COVID-19 are different for different populations, as was found in the reviewed literature. We have discussed the impact on the healthcare workforce and the general public separately.

Mental Health Implications for Healthcare Workers

Medical and healthcare staff engaged in providing care to patients affected with COVID-19 are at a risk of developing psychological issues such as vicarious traumatization. This is more prevalent in the non-frontline nurses and the public compared to frontline healthcare workers.¹³ Healthcare workers were identified as a group vulnerable to the mental health implications of COVID-19.¹⁴ Literature showed that healthcare workers are vulnerable to the adverse impacts of COVID-19 on mental health and emotional distress during the pandemic primarily because their chances of exposure to the virus are high, which in turn increases concerns about infecting their family and loved ones.¹⁵ However, this study did not differentiate between front line and non-frontline healthcare workers.

Kang, et al¹⁶ found that medical workers working during the COVID-19 pandemic in Wuhan were working in situations characterized by high risk of infection, such as overwork, inadequate protective measures against contamination, discrimination, frustration, negative patient emotions, exhaustion, and no contact with families. These situations



caused mental health issues such as depressive symptoms, anxiety, stress, insomnia, fear, anger, and denial. These mental health issues affect the understanding, attention, and decision-making capacities of healthcare workers, which could negatively impact their fight against the virus and have a lasting impact on overall well-being of the workers.¹⁶ Similar findings have been substantiated by Torales, Julio, et al which explain that the COVID-19 pandemic is causing additional mental health issues such as those highlighted above, which can weaken the fight against the virus, especially for healthcare workers.¹⁷

It has been emphasised that steps should be taken to provide mental health care to healthcare workers; it also been highlighted about the mental health issues and psychological distress experienced by healthcare workers providing care to COVID-19 patients.¹⁸ One of the main reasons for psychological distress was found to be a lack of appropriate rest and not being able to see their family for many days. However, the literature regarding healthcare workers and their mental health due to COVID-19 only focused on the population in China to date. Studies related to any other country are not yet available. Therefore, the finding is hypothetical and needs to be studied in-depth for verification.

Implications to the General Public

Studies included in this review identified certain populations that are more vulnerable to mental health implications of COVID-19, including the homeless,¹⁹ the elderly,²⁰ expatriates,²¹ students studying abroad,²² and pregnant women.²³ A study explained that people with pre-existing psychiatric conditions are more vulnerable with regard to the spread of COVID-19, as they could be at a greater risk of relapse. The chances of the onset of stress associated with a new episode of a pre-existing psychiatric disorder also increased during this virus outbreak.²⁴ One of the study showed that women are more vulnerable to mental illness in the wake of the COVID-19 outbreak.¹⁷

Literature showed that the prevalence of major depression following the COVID-19 outbreak increased by 7%, whereas post-traumatic stress disorder (PTSD) in the general population was reported 4% to 47%.²⁵ These findings were supported by other reports as well.^{7,17} It is also reported that individuals already infected with COVID-19 or suspected of infections may experience emotional reactions such as anxiety, fear, anger, loneliness, boredom, or insomnia. Brooks et al²⁶ stated that experiencing such emotions is natural during an outbreak. Xiang et al¹¹ explained that such conditions may evolve to transform into disorders such as depressive disorder, anxiety, psychotic behavior, and paranoia, and may, in some cases, lead to suicidal behavior. Brooks et al²⁶ observed such behaviour mainly in quarantined patients.

Zandifar and Badrfam²⁷ reported that individuals who have self-isolated due to COVID-19 report higher levels of stress, anxiety, depression, PTSD, and distorted pattern of sleep. Xiao et al,²⁸ stated that in the presence of increased social capital

during the quarantine period, sleep quality can be improved while symptoms of depression and anxiety may also improve. In the presence of a combination of anxiety and stress, sleep quality was negatively impacted, resulting in the poor mental health of quarantined individuals.²⁹

DISCUSSION

The review found that healthcare workers engaged in providing care to patients affected by COVID-19 are vulnerable to mental health issues. A policy document by the United Nations (UN) 2020 outlined that COVID-19 may cause psychological distress not only in the general population but also in healthcare workers.³⁰ This is in line with the work of Taylor et al³¹ and Borenstein,³² who opined that frontline nurses are prone to suffering from traumatisation due to being in close contact with COVID-19 patients and direct exposure to the psychological and physical sufferings of patients. The same studies support the notion of non-frontline healthcare workers being at a greater risk of trauma, as they are voluntarily being exposed to the psychological stress induced by providing care to infected patients.³¹ Evidence shows that psychological stress and the declining mental well-being of healthcare workers is mainly due to being overworked and lack of rest.³³ Kang et al found that the doctors feel mental relief when provided with proper rest and support in terms of being able to contact family via videos.¹⁶ Zhu et al²⁴ also supported the finding that declining mental health of healthcare workers may be a hindrance to effectively dealing with the pandemic, as it may reduce concentration and adversely affect attention and decision-making capabilities, which could be harmful for patients.

Studies such as Moren and Fauci¹ and Tucci et al² regarding pandemics that the world has faced in the past, suggested that pandemics adversely impact the mental health of individuals. People suffering from infections are not as vulnerable as the general population due to fear, anxiety, and uncertainty surrounding the pandemic.^{34,35} For example, during the Ebola outbreak, the epidemiological impact during all the phases of the event of outbreak, both individually and collectively, was worsened by fear-related behaviors, which further increased the psychiatric symptoms and suffering of the people, causing an indirect mortality other than by Ebola.^{35,36} In the current scenario, access to social media and advanced communication technology that facilitate access to information regarding COVID-19 are seen as some of the biggest contributors to increased aggression, anger, anxiety, and harmful social reactions.³⁷

Even among the patients experiencing symptoms of common flu, fear and stress due to having similar conditions to COVID-19 may worsen psychiatric symptoms, generating mental distress.¹⁴ The majority of COVID-19 cases are mild or asymptomatic with a low rate of confirmed cases and the mortality rate of the disease is relatively low.¹⁴ The mental health implications may be significantly high, which may lead to overloading emergency services and the overall healthcare system.



Findings of the 2020 survey by the Academy of Medical Sciences (2020) support the findings of their view that quarantine and self-isolation increase the symptoms of mental distress, anxiety, stress, depression, and other negative feelings, which may be attributed to the financial impact and practical implications of the pandemic. Moreover, the survey found that quarantined individuals report feelings of exacerbated pre-existing mental health problems, fear of death and virus, stress, and anxiety related to career and possibility of infecting family and loved ones.¹⁴

Limitations

COVID-19 emerged in December 2019 in Wuhan, China. The diseases are nascent, which is why research in the subject area is limited. Many publications are mainly related to China, which may serve as the basis for future research and provide lessons learnt from steps taken in China in dealing with the outbreak, especially regarding mental health. Generalizing the findings may not be possible as the nature of services and diagnosis for mental health vary across countries. The research suggests the public facing similar psychological issues and mental health problems during an epidemic.

CONCLUSIONS

COVID-19 can adversely impact various groups of populations, including healthcare workers and certain populations in the public. It could also be inferred out that quarantined individuals, and people already having some mental illnesses, are more vulnerable to mental health implications of the novel corona virus.

Given the different nature of the virus compared to other viruses belonging to the same family and its proven adverse impacts on the mental health of individuals, further research and education of mental health workers are needed, especially about the implications of the virus and measures that could be taken to mitigate the risks.

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