

## Impact of Coronavirus (COVID-19) outbreaks on mental health

Monalisha Pal<sup>1</sup>, Bijender Kumar Bhiduri<sup>2</sup>

<sup>1</sup> Department of Community health Nursing, M.Sc. Nursing 2ndYear, School of Nursing Science and Research, Sharda University, Greater Noida, Uttar Pradesh, India

<sup>2</sup> MBBS, MEM Medical Officer and Incharge, Govt. Hospital Bhiwadi, Bhiwadi, Rajasthan, India

### Abstract

Coronaviruses are important human and animal pathogens. At the end of 2019, a novel coronavirus was identified as the cause of a cluster of pneumonia cases in Wuhan, a city in the Hubei Province of China. It rapidly spread, resulting in an epidemic throughout China, followed by an increasing number of cases in other countries throughout the world. In February 2020, the World Health Organization designated the disease COVID-19, which stands for coronavirus disease 2019. The COVID-19 disease has now achieved pandemic status. The World Health Organization has issued guidelines for managing the problem from both biomedical and psychological points of view. While preventive and medical action is the most important at this stage, emergency psychological crisis interventions for people affected by COVID-19 are also critical. The misinterpretation of the COVID-19 pandemic has the potential for creating devastating stress that might turn into anxiety and other psychological diseases. The social isolation, quarantine, and lockdown can increase stress responses and generate more status of uncertainty.

**Objective:** The objective of this narrative review is to find information on Impact of corona virus (COVID-19) on mental health of individuals.

**Method:** A comprehensive review of published literature and journal articles from electronic databases was done by following specific search strategy for each database. Initial 4051 titles were retrieved and after screening 10 articles were selected for full test screening. Finally, 10 articles were selected based on the inclusion criteria.

**Results:** The results Enlightened that the countries in which government has implemented strict rules and regulations for the public health to maintain the social distancing and to decrease the lethality rate of COVID-19. As COVID-19 initially creeps in and subsequently spreads at a globally place and created global panic. The pandemic has significant and variable psychological impacts in each country, depending on the stage of the pandemic.

**Conclusion:** The study concluded that lockdown and social isolation will significantly shows the high prevalence of psychological disorders included anxiety, disorder, suicidal thoughts.

**Keywords:** Coronavirus, COVID-19, pandemic, Quarantine, social isolation

### Introduction or Background

A coronavirus is a kind of common virus that causes an infection in your nose, sinuses, or upper throat. Most coronaviruses aren't dangerous. In early 2020, after a December 2019 outbreak in China, the World Health Organization identified SARS-CoV-2 as a new type of coronavirus. The outbreak quickly spread around the world. COVID-19 is a disease caused by SARS-CoV-2 that can trigger what doctors call a respiratory tract infection. It can affect your upper respiratory tract (sinuses, nose, and throat) or lower respiratory tract (windpipe and lungs).

As the coronavirus pandemic rapidly sweeps across the world, it is inducing a considerable degree of fear, worry and concern in the population at large and among certain groups in particular, such as older adults, care providers and people with underlying health conditions. In public mental health terms, the main psychological impact to date is elevated rates of stress or anxiety. But as new measures and impacts are introduced especially quarantine and its effects on many people's usual activities, routines or livelihoods levels of loneliness, depression, harmful alcohol and drug use, and self-harm or suicidal behaviour are also expected to rise. In populations already heavily affected, such as Lombardy in Italy, issues of service access and continuity

for people with developing or existing mental health conditions are also now a major concern, along with the mental health and well-being of frontline workers.

A study was conducted by Min Luo, a Lixia Guo, b Mingzhou Yu, c *et al* titled "The psychological and mental impact of coronavirus disease 2019 (COVID-19) on medical staff and general public – A systematic review and meta-analysis" in June 2020, results shows that the coronavirus disease 2019 (COVID-19) pandemic has caused enormous psychological impact worldwide. We conducted a systematic review and meta-analysis on the psychological and mental impact of COVID-19 among healthcare workers, the general population, and patients with higher COVID-19 risk published between 1 Nov 2019 to 25 May 2020. We conducted literature research using Embase, PubMed, Google scholar and WHO COVID-19 databases. Among the initial search of 9207 studies, 62 studies with 162,639 participants from 17 countries were included in the review. The pooled prevalence of anxiety and depression was 33% (95% confidence interval: 28%-38%) and 28% (23%-32%), respectively. The prevalence of anxiety and depression was the highest among patients with pre-existing conditions and COVID-19 infection (56% [39%-73%] and 55% [48%-62%]), and it was similar between healthcare workers and

the general public. Studies from China, Italy, Turkey, Spain and Iran reported higher-than-pooled prevalence among healthcare workers and the general public. (Lai *et al.*, 2020; Zhang *et al.*, 2020; Zhu *et al.*, 2020; Chen

*et al.*, 2020) [4, 1, 1, 9]

### Data extraction Table

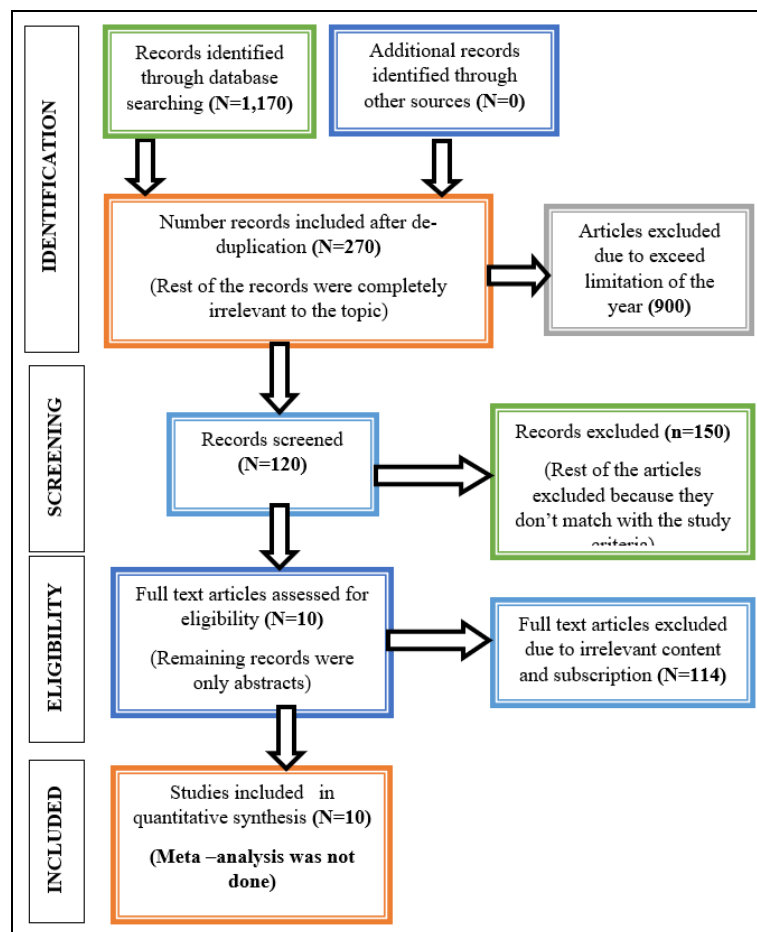
Table 1

S. No	Author	Title	Country	Findings
1.	Min Luo, Lixia Guo, Ming Zhou Yu, Wenyang Jiang, Haiyan Wang.	The psychological and mental impact of coronavirus disease 2019 (COVID-19) on medical staff and general public – A systematic review and meta-analysis.	China	They conducted literature research using Embase, PubMed, Google scholar and WHO COVID-19 databases. Among the initial search of 9207 studies, 62 studies with 162,639 participants from 17 countries were included in the review. The pooled prevalence of anxiety and depression was 33% (95% confidence interval: 28%-38%) and 28% (23%-32%), respectively. The prevalence of anxiety and depression was the highest among patients with pre-existing conditions and COVID-19 infection (56% [39%-73%] and 55% [48%-62%]), and it was similar between healthcare workers and the general public. Studies from China, Italy, Turkey, Spain and Iran reported higher-than-pooled prevalence among healthcare workers and the general public.
2.	Dr. Agnes Yuen-Kwan Lai, The University of Hong Kong	The Psychological Impact of COVID-19 Outbreak on COVID-19 Survivors and Their Families.	Hong Kong	Patients with COVID-19 diagnoses are treated under isolation in hospitals and with high-stress level. The stress and psychological impact on patients were also correlated significantly with several adverse psychological effects, such as fatigue, fear of social contact, poor sleep, loneliness, and depressed mood. The psychological impact of COVID-19 may also evolve and last for a prolonged period after discharge from the hospital. However, there is currently little information on the mental health implications of exposure amongst COVID-19 survivors and their family members. Research exploring the psychological impact amongst survivors of exposure to COVID-19 is desperately needed to understand the effects, mental health toll, and support required in survivors of COVID-19. This study aims to assess the psychological impact of the COVID-19 outbreak on COVID-19 survivors and their family members.
3.	Mohit Varshney Jithin Thomas Parel, Neeraj Raizada, Shiv Kumar Sarin	Initial psychological impact of COVID-19 and its correlates in Indian Community: An online (FEEL-COVID) survey	India	During the initial stages of COVID-19 in India, almost one-third respondents had a significant psychological impact. This indicates a need for more systematic and longitudinal assessment of psychological needs of the population, which can help the government in formulating holistic interventions for affected individuals. There were a total of 1106 responses from around 64 cities in the country. Out of these 453 responses had at least one item missing; and were excluded from the analysis. The mean age of the respondents was around 41 years with a male female ratio of 3:1 and around 22% respondents were health care professionals. Overall approximately one third of respondents had significant psychological impact (IES-R score > 24). Higher psychological impact was predicted with younger age, female gender and comorbid physical illness. Presence of physical symptoms and contact history predicted higher psychological impact, but did not reach statistical significance.
4.	Christiaan H.VinkersabTheresevan AmelsvoorteJonathan I.Bisson IgorBranchie	Stress resilience during the coronavirus pandemic	USA	They discussed the importance of resilience at the individual and societal level, but also the implication for patients with a psychiatric condition and health care workers. They were not only advocate for an increased focus on mental health during the coronavirus pandemic but also highlight the urgent need of augmenting our focus on resilience and on strategies to enhance it.
5.	Yingfei Zhang and Zheng Feei Ma.	Impact of the COVID-19 Pandemic on Mental Health and Quality of Life among Local Residents in Liaoning Province, China: A Cross-Sectional Study	china	They aimed to investigate the immediate impact of the COVID-19 pandemic on mental health and quality of life among local Chinese residents aged $\geq 18$ years in Liaoning Province, mainland China. An online survey was distributed through a social media platform between January and February 2020. Participants completed a modified validated questionnaire that assessed the Impact of Event Scale (IES), indicators of negative mental health impacts, social and family support, and mental health-related lifestyle changes. A total of 263 participants (106 males and 157 females) completed the study. The mean age of the participants was $37.7 \pm 14.0$ years, and 74.9% had a high level of education. The mean IES score in the participants was $13.6 \pm 7.7$ , reflecting a mild stressful impact. Only 7.6% of participants had an IES score $\geq 26$ . The majority of participants (53.3%) did

				not feel helpless due to the pandemic. On the other hand, 52.1% of participants felt horrified and apprehensive due to the pandemic. Additionally, the majority of participants (57.8–77.9%) received increased support from friends and family members, increased shared feeling and caring with family members and others. In conclusion, the COVID-19 pandemic was associated with mild stressful impact in our sample, even though the COVID-19 pandemic is still ongoing. These findings would need to be verified in larger population studies.
6.	Selçuk Özdin, Şükriye Bayrak Özdin.	Levels and predictors of anxiety, depression and health anxiety during COVID-19 pandemic in Turkish society: The importance of gender.	Turkey	<p>The COVID-19 pandemic is having negative effects on societies' mental health. Both the pandemic and the measures taken to combat it can affect individuals' mental health. The purpose of this study was to evaluate the levels of depression, anxiety and health anxiety in Turkish society during the COVID-19 pandemic, and to examine the factors affecting these.</p> <p>Method: The study was performed using an online questionnaire. Participants were asked to complete a sociodemographic data form, the Hospital Anxiety and Depression Scale (HADS) and the Health Anxiety Inventory (HAI). The effects on depression, anxiety and health anxiety levels of factors such as age, sex, marital status, living with an individual aged above 60, the presence of a new Coronavirus+ patient among friends or relatives, previous and current psychiatric illness and presence of accompanying chronic disease were then investigated.</p> <p>Results: In terms of HADS cut-off points, 23.6% (n = 81) of the population scored above the depression cut-off point, and 45.1% (n = 155) scored above the cut-off point for anxiety. In regression analysis, female gender, living in urban areas and previous psychiatric illness history were found as risk factors for anxiety; living in urban areas was found as risk factor for depression; and female gender, accompanying chronic disease and previous psychiatric history were found as risk factors for health anxiety.</p>
7.	Jiang Du, Lu Dong, Tao Wang, Chenxin Yuan, Rao Fu, Lei Zhang, Bo Liu.et.al	Psychological symptoms among frontline healthcare workers during COVID-19 outbreak in Wuhan	Wuhan, China	As of February 12, 2020, 21,569 HCWs from other cities in China have been deployed to support emergency response efforts in Wuhan, while 1716 HCWs have contracted COVID-19 and 5 have died. Two nurses deployed to Wuhan described the situation as "more difficult and extreme than [they] could ever have imagined" and they were "suffering psychologically." These experiences are consistent with the reports on increased psychological symptoms and conditions in HCWs during and after the SARS epidemic. However, few studies have examined psychological symptoms in frontline HCWs during an outbreak.
8.	Armando D'Agostino, Benedetta DeMartini,, Simone Cavallotti,a and Orsola Gambin.	Mental health services in Italy during the COVID-19 outbreak.	Italy	As of March 24, 2020, 63 927 confirmed cases and 6077 deaths due to coronavirus disease 2019 (COVID-19) make Italy one of the most severely affected countries of what has been defined a global pandemic by WHO.1 In Lombardy, the epicentre of the outbreak in Italy, large metropolitan hospitals in cities like Milan and Bergamo are struggling to contain an exponential growth of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) case presentations requiring hospitalisation. Italian mental health services are grounded on a community-based model of care, which is organised according to districts serving a defined geographical area. In Conclusion several rapid modifications must be implemented in the context of a department of mental health during a pandemic to protect patients with severe mental disorders and staff. Optimisation of shared procedures is mandatory to also limit the potential lack of adherence of some patients with national lockdown indications. The feasibility and effectiveness of online mental health services has been suggested by colleagues who faced the COVID-19 outbreak in China.
9.	Ilaria Bacigalupo, Flavia Mayer, Eleonora Lacorte, Alessandra Di Pucchio, Fabrizio Marzolini, Marco Canevelli, Teresa Di Fiandra, and Nicola Vanacorea	A Systematic Review and Meta-Analysis on the Prevalence of Dementia in Europe:	Europe	The aim of this study was to perform a systematic review and meta-analysis of data on the prevalence of dementia in Europe derived from studies that included only subjects with a diagnosis of dementia according to the DSM IV criteria, and that had a high-quality score according to ADI criteria. They considered the studies selected by the two projects Euro CoDe (1993–2007) and Alcové (2008–2011), and we performed a new bibliographic search. For the systematic review, we only selected the subset of articles that included subjects with a diagnosis of dementia according to the DSM IV criteria. The studies were qualitatively assessed using the ADI tool. Results: The meta-analysis considered 9 studies that were carried out in Europe between

				1993 and 2018 including a total of 18,263 participants, of which 2,137 were diagnosed with dementia. The prevalence rate standardized for age and sex resulted 7.1%.
10.	Qian Hui Chew, Ker Chiah Wei, Shawn Vasoo, Hong Choon Chua, Kang Sim.	Narrative synthesis of psychological and coping responses towards emerging infectious disease outbreaks in the general population.	Singapore	A total of 144 papers were identified from the search, 24 of which were included in the review. Overall, 18 studies examined the psychosocial responses of the general population towards the severe acute respiratory syndrome epidemic, four studies focused on the Ebola epidemic and two studies covered the H1N1 outbreak. Coping strategies adopted included problem-focused coping (seeking alternatives, self- and other-preservation), seeking social support, avoidance, and positive appraisal of the situation. Conclusion: Aimed the range of psychosocial responses seen in past infectious disease outbreaks, practical considerations for the current COVID-19 pandemic need to focus on the individual in the context of the larger social environment, with an emphasis on raising awareness of the range of possible psychosocial responses, access to psychological help, self-care, empowering self-support groups and sustained engagement with updated, reliable information about the outbreak.

**Material and Method**



**Fig 1:** Prisma flow diagram of narrative review

**Findings**

The systematic search was conducted by formulating the terms separately and in integration with all synonyms, also according to the database. Likewise, a manual Google scholar search was undertaken using the keywords and search synonyms from already articles. An addition of 10 articles was found in the database. Initial search recovers 1170 articles over which 270 articles were selected manually. 150 articles were rejected as a result of replication in the database. Replication was removed and reviewed 120 articles for acceptability. 114 more studies were rejected because of unreachable of the full text. Hence

10 articles were screened which includes quantitative study.

**Conclusion**

A coronavirus is a kind of common virus that causes an infection in your nose, sinuses, or upper throat. Most coronaviruses aren't dangerous. In early 2020, after a December 2019 outbreak in China, the World Health Organization identified SARS-CoV-2 as a new type of coronavirus. The outbreak quickly spread around the world. COVID-19 is a disease caused by SARS-CoV-2 that can trigger what doctors call a respiratory tract infection. It can affect your upper respiratory tract (sinuses, nose, and throat)

or lower respiratory tract (windpipe and lungs).

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