



# Journal of Health and Medical Sciences

**Sritharan, Jeavana, and Sritharan, Ashvinie. (2020), Emerging Mental Health Issues from the Novel Coronavirus (COVID-19) Pandemic. In: *Journal of Health and Medical Sciences*, Vol.3, No.2, 157-162.**

ISSN 2622-7258

DOI: 10.31014/aior.1994.03.02.109

The online version of this article can be found at:  
<https://www.asianinstituteofresearch.org/>

Published by:  
The Asian Institute of Research

The *Journal of Health and Medical Sciences* is an Open Access publication. It may be read, copied, and distributed free of charge according to the conditions of the Creative Commons Attribution 4.0 International license.

The Asian Institute of Research *Journal of Health and Medical Sciences* is a peer-reviewed International Journal. The journal covers scholarly articles in the fields of Medicine and Public Health, including medicine, surgery, ophthalmology, gynecology and obstetrics, psychiatry, anesthesia, pediatrics, orthopedics, microbiology, pathology and laboratory medicine, medical education, research methodology, forensic medicine, medical ethics, community medicine, public health, community health, behavioral health, health policy, health service, health education, health economics, medical ethics, health protection, environmental health, and equity in health. As the journal is Open Access, it ensures high visibility and the increase of citations for all research articles published. The *Journal of Health and Medical Sciences* aims to facilitate scholarly work on recent theoretical and practical aspects of Health and Medical Sciences.



ASIAN INSTITUTE OF RESEARCH  
Connecting Scholars Worldwide



# Emerging Mental Health Issues from the Novel Coronavirus (COVID-19) Pandemic

Jeavana Sritharan<sup>1</sup>, Ashvinie Sritharan<sup>2,3</sup>

<sup>1</sup> Faculty of Health Sciences, Ontario Tech University

<sup>2</sup> Metrics Vocational Inc.

<sup>3</sup> ASKRehab

Correspondence: Jeavana Sritharan, Faculty of Health Sciences, Ontario Tech University, Oshawa, Ontario, L1H 1K4, E-mail: jea.sritharan@gmail.com

## Abstract

The unprecedented widespread pandemic of the novel coronavirus (COVID-19) has continued to have a tremendous impact on nations around the world. Government controls and restrictions were put in place and are currently being updated to increase social isolation and social (physical) distancing to slow the spread of the virus. As a result, it is expected that there will be unparalleled psychological distress impacting individuals at a global level. Given that the COVID-19 pandemic is expected to continue for the coming months with the possibility of multiple waves, it is imperative to understand the magnitude of mental health issues that will arise during and after this public health crisis. A review of existing literature was assessed to understand the mental health issues that emerge during a pandemic. MEDLINE, Pubmed, APA PsycInfo & CINAHL Plus were reviewed to identify articles published from 2000 to 2020. Of the 203 unique articles reviewed, 16 articles were included in this study. From these articles, important mental health themes identified were related to social isolation, social (physical) distancing, quarantine, caregiver stress, unemployment, and death/illness. The impact on frontline workers and those suffering from mental health disorders are also important factors during this pandemic. These themes provide important areas for mental health strategies and policies which will ultimately impact the burden of mental health in the months to come.

**Keywords:** Coronavirus, COVID-19, Mental Health, Pandemic, Psychological Distress

## 1. Introduction

Throughout history there have been major influenza outbreaks that have resulted in high morbidity and high mortality. It has been repeatedly predicted that another disease pandemic will emerge and spread throughout the global population, primarily due to increased air travel and globalization ( P. Douglas, D. Douglas, Harrigan & K. Douglas, 2009; Kessler & Wittchen, 2008; Perrin, McCabe, Everly & Links, 2009). As predicted, an unprecedented pandemic began in late 2019, affecting hundreds of thousands of people worldwide. The novel coronavirus, known as COVID-19, is an infectious disease, primarily spread through droplets of saliva or discharge from an infected person (World Health Organization, 2020). COVID-19, unlike previous pandemics of this century, spread rapidly due to the increased socialization of individuals and the nature of the virus.

As countries aggressively push to get ahead of the pandemic and protect their inhabitants, there is widespread uncertainty, confusion, and anxiety (Pfefferbaum, Schonfeld, Flynn & Dodgen, 2012). As a result of this public health crisis, there will be unparalleled mental health issues or psychological distress that arise with substantial impact at a global level (Pfefferbaum et al., 2012). Mental health issues during pandemics are related to acute stress and fear associated to the outbreak, adverse effects from prolonged social distancing, social isolation, and quarantine, and the loss of loved ones or caring for the ill (Douglas et al, 2009). It is expected that there will be a severe strain on mental health resources during and following the pandemic, putting extreme pressure on existing resources and potentially leading to untreated mental health concerns across populations worldwide.

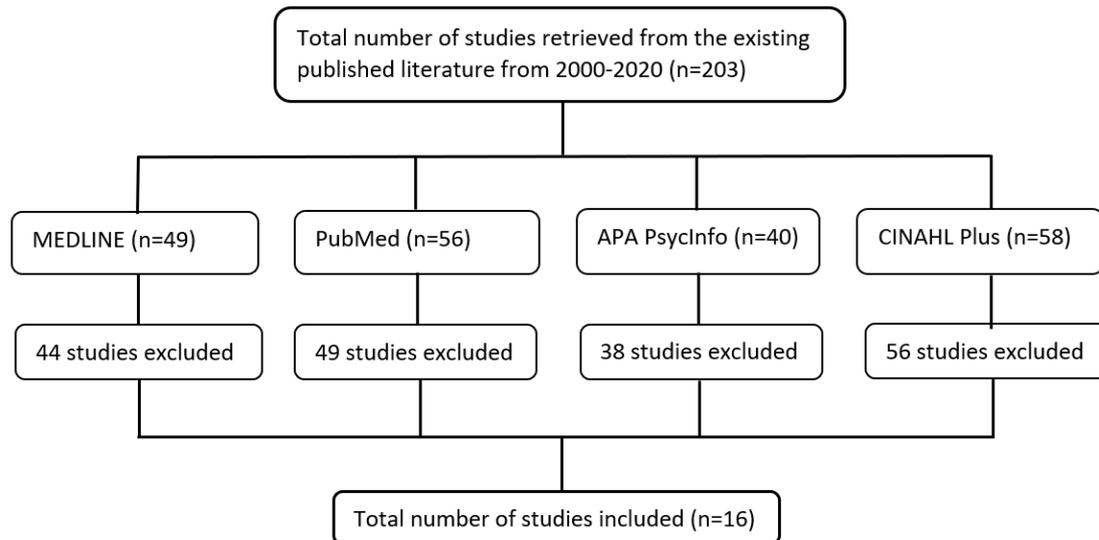
To move forward with mental health considerations during and after the pandemic, there needs to be better understanding of the magnitude of psychological distress experienced by individuals. Currently, there is little published information available on the actual mental health impact directly related to pandemics. This is mainly because few pandemics have actually occurred in the past century (Hughes, 2010). In the case of COVID-19, the highest impacted groups in terms of morbidity and mortality are those 65 years and older and those with underlying medical conditions (Centres for Disease Control and Prevention, 2020). New cases are increasingly diagnosed in younger age groups, however less common (Centres for Disease Control and Prevention, 2020). Given the rising number of cases and deaths around the world, there will be a significant toll on mental health across all age groups and populations. There is an urgent need to maintain mental health in these large populations as the COVID-19 pandemic continues to progress at a large scale. This paper will review the available published literature on mental health issues resulting from pandemics. Based on the reviewed literature, important mental health themes will be addressed, mainly in the context of North America.

## **2. Method**

To better understand the mental health impact from pandemics, a number of online search tools were assessed to identify existing literature. MEDLINE, Pubmed, APA PsycInfo & CINAHL Plus were reviewed to identify articles published in the past 20 years (2000-2020). Studies included were those published on pandemics and mental health in the English language. Key words used were 'pandemic', 'outbreak', 'mental health', 'mental illness' and 'psychological distress'. Information was extracted from these articles to determine mental health themes that emerge during a widespread pandemic.

## **3. Results**

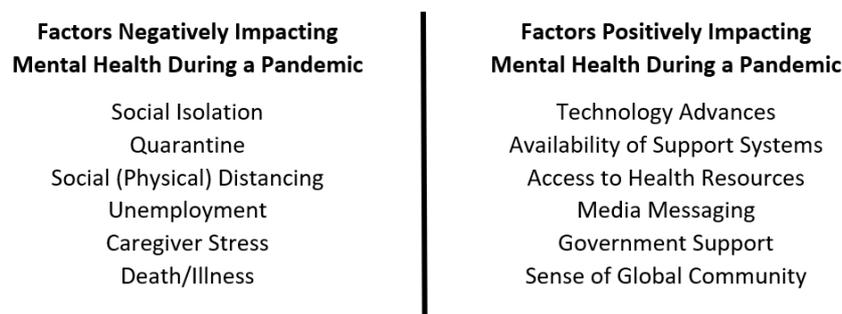
The literature search resulted in 203 unique studies published in English. A majority of the studies were excluded (92%) because they did not include the topic of widespread pandemics or mental health, were based on specific chronic health conditions only (ex. HIV/AIDS, cancer, heart disease) or natural/man-made disasters, were editorial or commentary articles, and were duplicates of what was already included. Studies that primarily focused on the Ebola epidemic in Western Africa were also excluded. A total of 16 articles were included in this study.



**Figure 1.** A flow diagram representing the 203 studies retrieved from the existing published literature from 2000 to 2020. A total of 16 studies were included in this study for further discussion.

#### 4. Discussion

COVID-19 differs from previous outbreaks, such as SARS, which affected specific countries and had a lower number of infected individuals and deaths than COVID-19. During the SARs outbreak, the mental health services were considered a low priority as resources were immediately directed to urgent health services and research (Chan, Lam & Chiu, 2009). As the magnitude of COVID-19 on health resources is far greater, it is expected that current mental health services will decline in terms of emergency, community outreach, rehabilitation, prevention, and early intervention services (Chan et al., 2009). Similar to the SARS outbreak, there will be increased mass fear, limited social networking, and significant limitations with access to the health care system which will trigger physical, social, behavioural, and mental health problems (Chan et al., 2009). The increased uncertainty can lead to the uptake of high-risk behaviours such as smoking or alcohol consumption, absenteeism in the workforce, recklessness, panic buying, and unsafe work practices (Pfefferbaum et al., 2012). Health care professionals may not be able to meet the excess needs for mental health following the COVID-19 pandemic. Given the uncertainty of how long the COVID-19 outbreak and subsequent waves will last and given that lengthy process of vaccine development, there is a crucial need to prepare for the mental health impact.



**Figure 2.** Key factors that can negatively or positively impact mental health during a widespread pandemic.

##### 4.1 Social isolation, social (or physical) distancing, and quarantine

During the COVID-19 crisis, many countries enforced the closure of public settings, encouraging individuals to self-isolate if infected, quarantine if in contact with others who contracted the infection, and to socially distance themselves to keep a two-meter distance from others. To reduce the spread of COVID-19, these are effective defense strategies prior to the development of a vaccine (Douglas et al., 2009). As pandemics can occur in waves over a long period of time, there is a correlation between the degradation of mental health and social isolation (Douglas et al., 2009). Measures of social isolation, social distancing, and quarantine can have significant social,

psychological, and economic implications on the public (Perrin et al., 2009). There is an expected emotional strain related to social isolation and quarantine, and increased anxiety and confusion related to the uncertainty of what is to come. Increased psychological distress is also expected in regions where there are tighter levels of disease control which are put in place when the incidence of the disease is increasing (Taylor, Agho, Stevens & Raphael, 2008; Lee, Chi, Chung & Chou, 2006). The longer the duration of quarantine or social isolation, the more likely there will be higher distress symptoms in individuals (Lee et al., 2006). As social distancing continues during this pandemic, there will be a lack of social interaction especially related to social milestones such as birthdays, graduations, and weddings. A decline in mental health is expected given the lack of common social interactions.

#### *4.2 Caregiver stress*

Psychological distress is also an important factor among caregivers who are parents to young children, those with elderly parents or looking after elderly family members, and those looking after the ill. As COVID-19 appears to have the most impact on elderly populations, there may be increased fear and anxiety among caregivers responsible for elderly individuals. The fear and anxiety are related to possibility of infecting susceptible individuals like the elderly, or other illnesses resulting in the need for health resources for these individuals. There is also fear and anxiety when looking after young children or dependents. A previous study assessing psychological distress during a disease epidemic in Australia identified that families with one child had a 1.2 times higher risk of psychological distress than those with no children (Taylor et al, 2008). These families were likely to be younger families with younger parents. However, they also found that families with three or more children appeared slightly protective for psychological distress (Taylor et al, 2008). School and child care closures and government restrictions on social interactions impact caregivers of young children, which may result in decreased mental health in caregivers and children. In the United States, public schools are the largest provider of mental health services to children (Stevenson et al., 2009). The closing of schools and mandatory social distancing will disrupt children's routines and potentially increase stress levels within the family. If a parent contracts the virus, there may likely be parent-child separation which can lead to further anxiety and stress (Stevenson et al., 2009). Children may experience the illness themselves or the loss of loved ones and may find difficulty in coping with the grief if rituals such as funerals are prohibited due to social distancing (Stevenson et al., 2009). Mental health preparedness should include considerations for children, who are significantly impacted during and after pandemic.

#### *4.3 Impact of death/illness*

Individuals who tested positively for COVID-19 or are suspected to be ill will likely experience social stigmatization, loss of anonymity through the media, fear of transmitting the virus to loved ones, death or illness among those in close proximity, and the inability to be present for those who are affected due to social isolation or quarantine (Douglas et al., 2009; Perrin et al., 2009; Tansey et al., 2007). In dense populations where there are high numbers of cases and deaths, residing individuals may suffer from increased anxiety, hyper-alert state, and intrusive memories based on their experiences (Lee et al., 2006). As seen during the SARS outbreak, older adults living in high SARS prevalent regions had a higher incidence of post traumatic stress disorder (PTSD) compared to older adults living in low SARS prevalent regions even if they did not contract the virus (Taylor et al., 2008; Lee et al., 2006). Although these individuals were not ill, they perceived that they were at a higher risk due to age and being in a high incidence rate population, especially if the death toll increased drastically. Family members of individuals with severe illness or hospitalized in the ICU reported higher levels of stress and depression, indicating a need for psychological support for families of patients (Elizarraras-Rivas et al., 2010). This is especially important, given the restrictions in hospital and home care institutions during the pandemic, where families have limited or no contact with the ill member of the family. The isolation of the ill individual may increase levels of fear, anxiety, stress, grief, and depression among loved ones. Coping mechanisms are absolutely necessary to guide individuals and families dealing with death or illness, as there will be lasting impacts on families.

#### *4.4 Unemployment*

With the economy recessing during the pandemic, this will significantly affect the population's overall health. The increase in unemployment due to the pandemic will result in financial strain, debt, and job-seeking challenges impacting individual mental health. Studies have shown that a recession period resulting in

unemployment is associated to deterioration of a population's self-reported health and a lower life satisfaction level (Frasquilho et al., 2016). This in return increases population psychological distress and prevalence of depression and anxiety disorders. Studies have also shown associations between unemployment and suicidal behaviour (Frasquilho et al., 2016). Economic stress not only impacts individual mental health but can decrease the overall mental health of families and communities collectively. As a result, there may be a decline in parenting quality and children's mental health (Frasquilho et al., 2016). The impact from unemployment can be long term if there is no financial support or economic improvement.

#### *4.5 Impact on frontline workers*

Health care workers, such as physicians and nurses, are at the core of the pandemic. Given the widespread impact of COVID-19, there is increased psychological stress in health care workers who are expected to perform their duty at the highest capacity possible while being at risk themselves and are essentially putting their loved ones at risk (Perrin et al., 2009). As with the SARS outbreak, 20% of those affected were health care workers (Perrin et al., 2009), and with COVID-19, reports are already showing high rates of health care workers infected. During the SARS outbreak, healthcare workers in Taiwan, Singapore, and Saudi Arabia reported increased anxiety, depression, hostility, fear, nervousness, and psychiatric symptoms (J. Park, Lee, N. Park & Choi, 2018). Frequent concerns among health care workers during the SARS outbreak were the possibility of becoming infected themselves and transmitting the virus to family and friends, which in turn increased social isolation, intentional absenteeism, stigma, insomnia, and psychological distress (Park et al., 2018; Goulia, Mantas, Dimitroula, Mantis & Hyphantis, 2010; Lia et al, 2020). Health care workers directly involved with diagnosing, treating, and providing care of COVID-19 patients in China experienced a higher risk of depression, anxiety, insomnia, and distress (Lai et al, 2020). As health care workers continue to make life and death decisions, it is expected that the mental health toll on these workers will be tremendous during and after the pandemic. Other frontline workers, such as paramedics, police officers, firefighters, active military personnel, hospital staff, care home staff, pharmacists, and grocery store staff are also impacted psychologically. These essential workers interact with the public more frequently than other workers and are at a higher risk of contracting the virus. Protecting essential workers, especially health care workers, through public health measures is imperative during the pandemic (Lai et al, 2020). There is a need to promote mental health well-being among frontline workers during and following the pandemic.

#### *4.6 Impact on individuals with mental health disorders*

Individuals with mental health disorders are often overlooked during large widespread outbreaks as the focus is shifted towards other priority health needs, infected persons, and frontline workers (Yao, Chen & Xu, 2020). Individuals with mental health disorders are less likely to be able to access their regular health resources given the stringent restrictions in place during a pandemic. They may also be at higher risk for infection or contraction of the virus due to decreased cognitive function, awareness of risk, and personal protection (Yao et al., 2020). They may be more susceptible to emotional responses or stress brought on by the pandemic (Yao et al., 2020). There is very limited understanding of how a pandemic affects individuals with mental health disorders, and this is an important gap to address in future studies.

#### *4.7 Mitigating Factors*

Although there are multiple mental health issues that arise from pandemics, there are mitigating factors that can reduce psychological distress. Increased technology development and social media interaction allows for individuals to remain somewhat intact with a support system or with others around the world (Tansey et al., 2007). Increased access to media also provides individuals with access to up to date information and a sense of connection to others (Tansey et al., 2007). Consistent government public messaging and support can also provide a sense of comfort and security for individuals. Also, there is comfort in knowing that collectively the global population is impacted similarly, which can provide some level of unity.

Mental health preparedness for widespread pandemics should be developed with effective action plans worldwide, especially in countries where resources are abundant. When health resources are tremendously strained during a widespread pandemic, it is expected that mental health services will not be the principal priority during the pandemic (Chan, Lam & Chiu, 2009). However, there will be significant challenges to the

depth of the mental health impact following the pandemic, which will strain the health services even further. Psychological longitudinal surveillance may be necessary during this pandemic to identify important determinants of psychological distress and to improve understanding for future pandemics (Perrin et al., 2009).

## 5. Conclusion

As the course of the COVID-19 pandemic continues to unfold and is expected to affect global populations in multiple waves, there is an urgent need for mental health resource preparation. This will be especially apparent as the virus is contained or begins to slow down. Mental health issues need to be considered in order for appropriate programs and strategies to be developed. Direction and policies need to be put into place to effectively facilitate the burden of mental health in the months to come.

## References

- Chan SS, Lam LCW & Chiu HFK. (2009). The emergence of the novel H1N1 virus: implications for global mental health. *International Psychogeriatrics*, 21(6): 987-989.
- Centres for Disease Control and Prevention. (2020). *Coronavirus disease 2019 (COVID-19)*. U.S. Department of Health & Human Services. <https://www.cdc.gov/coronavirus/2019-ncov/specific-groups/high-risk-complications.html>
- Douglas PK, Douglas DB, Harrigan DC & Douglas KM. (2009). *International Journal of Emergency Mental Health*, 11(3): 1-9.
- Elizarraras-Rivas J, Vargas-Mendoza JE, Mayoral-Garcia M et al. (2010). Psychological response of family members of patients hospitalized for influenza A/H1N1 in Oaxaca, Mexico. *BMC Psychiatry*, 10: 104.
- Frasquilho D, Matos MG, Salonna F et al. (2016). Mental health outcomes in times of economic recession: a systematic literature of review. *BMC Public Health*, 16: 115.
- Goulia P, Mantas C, Dimitroula D et al. (2010). General hospital staff worries, perceived sufficiency of information and associated psychological distress during the A/H1N1 influenza pandemic. *BMC Infectious Diseases*, 10: 322.
- Hughes FA. (2010). H1N1 pandemic planning in a mental health residential facility. *Journal of Psychosocial Nursing*, 48(3): 37-41.
- Kessler RC & Wittchen H. (2008). Post-disaster mental health need assessment surveys-the challenge of improved future research. *International Journal of Methods in Psychiatric Research* 17(S2): S1-S5.
- Lai J, Ma S, Wang Y et al. (2020). Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. *JAMA Network Open*, 3(3): e203976.
- Lee TMC, Chi I, Chung LWM et al. (2006). Ageing and psychological response during the post-SARS period. *Aging & Mental Health*, 10(3): 303-311.
- Park JS, Lee EH, Park NR & Choi YH. (2018). Mental health of nurses working at a government-designated hospital during a MERS-CoV outbreak: a cross-sectional study. *Archives of Psychiatric Nursing*, 32: 2-6.
- Perrin PC, McCabe OL, Everly GS & Links JM. (2009). Preparing for an influenza pandemic: mental health considerations. *Prehospital and Disaster Medicine*, 24(3): 223-230.
- Pfefferbaum B, Schonfeld D, Flynn BW et al. (2012). The H1N1 crisis: a case study of the integration of mental and behavioral health in public health crises. *Disaster Medicine and Public Health Preparedness*, 6(1): 67-71.
- Stevenson E, Barrios L, Cordell R et al. (2009). Pandemic influenza planning: addressing the needs of children. *American Journal of Public Health*, 99(S2): S255-S260.
- Tansey CM, Louie M, Loeb M et al. (2007). One-year outcomes and health care utilization in survivors of severe acute respiratory syndrome. *Archives in Internal Medicine*, 167: 1312-1320.
- Taylor MR, Agho KE, Stevens GJ & Raphael B. (2008). Factors influencing psychological distress during a disease epidemic: data from Australia's first outbreak equine influenza. *BMC Public Health*, 8: 347.
- World Health Organization. (2020). *Coronavirus*. [https://www.who.int/health-topics/coronavirus#tab=tab\\_1](https://www.who.int/health-topics/coronavirus#tab=tab_1)
- Yao H, Chen JH & Xu YF. (2020). Patients with mental health disorders in the COVID-19 epidemic. *The Lancet Psychiatry*, 7(4): PE21.