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## Covid-19 and its impact on global mental health

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### ABSTRACT

The COVID-19 pandemic may cause a possible rise in incidents associated with mental health issues which may lead to suicidal behaviors such as suicidal ideation, suicide attempts, and actual suicide worldwide. COVID-19, manifested by severe acute respiratory syndrome (SARS-CoV-2) in affected people, has been declared by the World Health Organization to be a public health emergency of international concern. The unpredictable consequences and uncertainty surrounding public safety, quarantine and isolation, fake news, and myths about COVID-19, particularly abounding in social media, may negatively impact an individual's mental health, causing depression, anxiety, phobia, and traumatic stress. It has been established that around 90% of global suicides are individuals who suffer from depression. This has been similarly reported to have been occurring in the past epidemics and pandemics.

The unprecedented attack of an unseen enemy startled the unarmed world. A Coronavirus disease 2019 (COVID-19) outbreak caused by a Severe Acute Respiratory Syndrome-associated coronavirus (SARS-CoV-2) enveloped the world in fear and distress as it resulted in high death tolls among nations. COVID-19 remains an emerging and rapidly evolving situation instilling fear [1] and causing pain to people worldwide. The fear of contracting the virus and the life-changing effects of restricted movements in daily life caused experiences of worry, stress, and anxiety, which are normal responses to the perceived and actual threats. These negative feelings are exacerbated when one is subjected to adversity and uncertainty [2]. As it stresses almost every country, it is inevitable that people also become fearful of the present and what lies ahead.

COVID-19 has been closely associated with a decline in mental health since its declaration as a pandemic by the World Health Organization (WHO) on March 11, 2020. It swept the whole world at an alarming pace with the severity of the disease [3]. It is taking a toll on the emotional resilience of people who are not in harm's way and those who are on the verge of it. It is evident on challenges alongside conditions of anxiety, depression, trauma, and stress [4]. Many are confronted with new realities of unemployment, isolation, lack of physical contact with other family members and friends, and sudden death of loved ones. Some people have become paranoid, and others are losing hope, especially the poor and afflicted. World statistics as of March 24, 2021 showed 123,902,242 confirmed cases and deaths at 2,727,837 due to COVID-19 [3].

Added to its severe implications to the people's lives, the economy toppled as businesses ceased to operate and non-essential businesses are restricted from opening; hence, many people lose their jobs. As social distancing becomes a mandate [2], schools are also closed, and mass gatherings are prohibited. Severe restriction in movements among the people is enforced to support efforts to contain and slow down the spread

of the virus [3]. The regulated movement of people brought about a "new normal" that drastically altered the way people carry out their normal daily activities; and forcing societies to adapt to this new way of life rapidly. These new life conditions add to the people's stress as they are forced to change their daily routines.

The current scenario poses risks that may highly disturb people's perception and disposition, causing extreme psychological pressure and burden due to overwhelming feelings of loneliness, isolation, separation anxiety, xenophobia or fear of contracting the disease, worry of availability of health care support [5] and concern overspreading the disease within close circles at home and work. The significant psychological impact of this challenging time is elevated rates of stress or anxiety [2]. Public health actions such as quarantine and social distancing are vital, although extreme measures to reduce the spread of COVID-19 may induce the feeling of isolation and loneliness, which can raise levels of stress and anxiety [6,7]. The population is also challenged by issues of access to healthcare services and continuity of treatment for people with developing or existing mental health conditions along with the mental health and well-being of frontline workers, which also impact the global mental health concern.

For individuals with weak coping mechanisms, the effects of the pandemic may trigger mental health issues which may lead to suicidal behaviors such as suicidal ideation, suicide attempts, and actual suicide. It has been established that around 90% of global suicides are among people who suffered from depression [5]. During this pandemic, suicides are occurring globally [7–9]. The youth commits suicide over suspicion of having COVID-19 [8]. The current events magnify an extreme fear of getting infected with the disease, experience of social stigma, and discrimination of biased treatment once infected, which are contributing factors in committing suicide. The prevalent symptoms of mental health problems arise from the extreme fear of COVID-19 and its surrounding

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consequences, which are significant tell-tale signs that may lead to suicide.

As reported incidents associated with mental health issues arise during the pandemic, the WHO raises alarming concerns on the impact of COVID-19 on mental health, advice the general public (health workers, managers of health facilities, people who are looking after children, older adults, people in isolation) to help and ensure that we look after our mental health, and reiterates the importance of maintaining both physical and mental health [3,9].

Stress can cause: a) feelings of worry, fear, sadness, anger, frustration, and numbness, b) changes in eating habits, c) difficulty in making decisions and lack of concentration, d) difficulty in sleeping, e) physical reactions, such as headaches, stomach problems, and skin rashes, f) worsening of chronic health problems, g) worsening of mental health conditions, and h) increased use of tobacco, alcohol, and other substances. To avoid these consequences, people must learn to cope with stress positively, which boosts resilience [6]. On the other hand, if a person's stress level is not controlled and managed well, stress may exacerbate one's pre-existing conditions and present situation. It may significantly reduce one's level of well-being. It is, therefore, of the essence to identify the factors that modulate a person's stress response, especially during a pandemic.

Studies show a sense of coherence (SOC) plays a significant role in ascertaining an individual's ability to cope with stressors and is considered a resistance factor [10,11]. Changes in SOC and psychopathological symptoms are predicted by pre-outbreak SOC and symptom levels taking into account COVID-19 related stress based on a study of European samples before and after the initial COVID-19 outbreak in Germany and post-outbreak COVID-19-related traumatic distress [9]. "Sense of coherence is a mixture of optimism combined with a sense of control and has the components of: a) comprehensibility (cognitive), b) manageability (behavioral), and c) meaningfulness (motivational) [12,13]." Comprehensibility is the extent a person rationalizes or understands both internal and external stimuli. Manageability pertains to resourcefulness in using what we have at our disposal to help manage the stimuli. And meaningfulness is the way we feel and see that our life has a purpose and emotional meaning [12]. Irrefutably, a person's quality of life and health outcomes are significantly influenced by one's sense of coherence as we become mindful of internal and external factors that might trigger stress [14]. Sense of coherence and mindfulness are known as protective factors that combat psychopathology even in older age groups [10]. The higher the SOC, the less stressed or affected a person becomes. Adequate preparedness, good social support, and proactive coping styles shall also significantly reinforce resilience.

Pre-outbreak SOC levels may also predict psychopathological symptoms. Pre-outbreak SOC indicates changes in SOC and psychopathological symptoms and symptom levels, taking into account COVID-19 related stress based on a study of European samples before and after the initial COVID-19 outbreak in Germany and post-outbreak COVID-19-related traumatic distress [11]. During the severe acute respiratory syndrome (SARS) in 2003 which was caused by another coronavirus, SARS-CoV, several studies examined the association of SARS to the risk of psychiatric disorders and suicide. In a study of cases in Taiwan which was severely affected by SARS, people who are diagnosed with SARS developed psychiatric disorders and suicide [15]. The increased risk of psychiatric disorders and suicide are found to be linked with anxiety, depression, sleep disorders, post-traumatic stress disorder (PTSD), acute stress disorder (ASD), and suicide. During the acute phase, psychiatric diagnoses included adjustments disorder, organic hallucinosis, and organic manic disorder [16]. Further, the long-term adverse health outcomes among the SARS survivors are also a risk factor for psychiatric morbidity [17]. In Hong Kong, the suicide rate among elderly people increased during and after the SARS pandemic [18].

In a study conducted on Spanish flu, survivors reported occurrences of sleep disturbances, depression, and lack of focus, dizziness and difficulties coping at work. In the six (6) years following the pandemic, cases

of mental disorder among first-time hospitalized patients increased by an average annual factor of 7.2 [19]. Additionally, the death rates in the United States during the years 1918–1920 are significantly and positively related to suicide. The disease decimated the more robust segments of the population (ages 20–40), taking the lives of many within three days of showing symptoms [19]. In comparison to other pandemics, there is little research on the long-term impact of the Spanish flu on mental health.

A glimpse of previous epidemics and pandemics shows that these incidents have negatively affected mental health with the phobia, depression, anxiety, and stress [18,20]. The historical record shows that a widespread occurrence of an infectious disease takes a toll on the emotional resilience of the population. The sight or knowledge of massive deaths especially involving people known or within one's circle, may thrust a person into a chronic state of helplessness and anxiousness. The possible long-term impact of the COVID-19 disease pandemic cannot be underestimated as it not only causes severe implications to physical health but may also induce a global mental health crisis which may lead to psychological, psychiatric conditions, and suicide, as revealed by studies on the effect of the coronavirus and other infectious diseases.

The effects of infectious diseases as seen in previous epidemics and pandemics (SARS, Ebola, H1N1, Equine flu) and the limited early results of COVID-19 show that this pandemic is set to bring in psychological and mental health challenges arising from the fear of contracting the disease and the effects of the contagion to daily life [13,21,22]. Different age groups experience various mental health issues. The impact of these challenges depends on the individual's coping mechanisms to face the difficulties and the family's ability to provide support and/or structure at home. Understanding the effects of the COVID-19 outbreak to various segments of the population are as important as understanding its clinical features, transmission patterns and management [22]. Based on earlier studies on the effects of coronavirus contagion, COVID-19 has the potential to result in long-term mental health consequences extending well beyond the duration of this pandemic. Specifically, this pandemic can crash individuals who are least able to cope. However, studies show that resilience decreases the adverse effects of stress and may reduce the emotional impact of COVID-19. Because even if we can halt the spread of COVID-19 with expeditious use of all possible measures, we still have to contend with long-term effects on the mental health of vulnerable segments of the population.

## 1. Discussion

The COVID-19 pandemic has given rise to mental health challenges among the people. Different age groups experience different mental health issues and should be dealt and addressed with in the most effective way. Public awareness campaigns focusing on the maintenance of mental health in the prevailing situation are urgently needed. Proper knowledge about COVID-19, maintaining a healthy disposition, and continuous access to mental health care services are essential and will all contribute to averting suicide tragedies. Raising one's sense of coherence and resilience are key, as well as mindfulness and self-awareness. A sudden change in thoughts and feelings is a symptom of deteriorating mental health and should not be downplayed. People are encouraged to immediately seek professional help through telemedicine. The availability and use of telemedicine allow urgent cases to be attended to prevent serious consequences.

Mental health is an important part of our overall health and well-being. It is how we think, feel and act. It affects how we handle stress, relate to others, and make choices during an emergency. It is our responsibility to become mindful and ensure the health of our physical and mental state. Taking care of one's self, family, and friends can be a stress reliever. Self-care specifically includes self-compassion, providing one's self with adequate nourishment for good health and keeping our immune system strong, exercising at least 30 minutes daily, exposing one's self to the morning sun, which is a natural source of Vitamin D, engaging in new hobbies, staying connected with friends and loved ones, and keeping

one's self happy and with a cheerful disposition. Help others cope with stress by maintaining social connections. Initiating phone calls and video chats helps you and your loved ones to stay connected, feel less lonely and isolated. In health, our primary guiding principle must always be "PREVENTION is BETTER than CURE."

The responsibilities of leaders and healthcare experts, first and foremost, include the proper dissemination of accurate and updated information on COVID-19 to the public to prevent fear which is prone to arise from misinformation. Secondly, primary care for children and high-risk segments such as those with pre-existing mental health conditions and those who are undergoing depression and anxiety. Thirdly, responsiveness to the mental health needs of front liners or first-responders; and last, preparation to support the longer-term wave of poor mental health.

Ongoing studies which aim to improve the mental health of the people should take into consideration the demographics of the population in developing mitigation and treatment programs. With the similarities in effects to psychological and mental health of previous epidemics and pandemics and the early results of COVID-19, age-appropriate strategies may be effective in lessening the impact of COVID-19.

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#### Conflict of interest

None.

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#### Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.sintl.2021.100108>.

#### Consent to participate

Not applicable.

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