

Global impact of COVID-19 on mental health: A review

Prasenjit Maity ¹

¹Department of Chemistry, Sabang Sajanjikanta Mahavidyalaya, Lutunia, Paschim Medinipur, West Bengal, India

Abstract

COVID-19 caused by SARS-CoV-2, first broke out in Wuhan, China in December of 2019, and now it spreads in more than 200 countries around the globe. The World Health Organization (WHO) has now declared COVID-19 a pandemic. More than 5 lakh confirmed deaths of COVID-19, as well as number of cases increase every day in the world. At the same time, this public health crisis has caused a variety of mental problems, such as panic disorder, anxiety and depression. To control the mental health problem, the government must pay the attention of the common public, health care workers and patients with mental disorders. Community mental health service system, public awareness campaign, online learning programs, telemedicine, simple daily physical exercises, and other measures for patients with mental disorders may play a crucial role during the epidemic. The aim of this review is the how to diminish and overcome the depression, anxiety and insomnia among the public during the Covid-19 outbreak.

Keywords: Coronavirus; COVID-19; Lock-down; Mental health; Prevention

1 Introduction

An outbreak of COVID-19 caused by the SARS-CoV-2 began in the city of Wuhan in China and has widely spread worldwide (Chakraborty, and Maity, 2020; Huang et al., 2020a; Li et al., 2020a). The COVID-19 pandemic has become a global health emergency (Chang, Yan, & Wang, 2020; Wang, Horby, Hayden, Gao, 2020). Considering the massiveness of transmissibility of the disease the World Health Organization (WHO) has declared it a pandemic, and till date it has affected around 11108580 people in more than 200 countries and territories resulting over 527835 deaths, and also medical isolation of million population, and affected daily life of billion people (Chan et al., 2020; Fuk-Woo et al., 2020; WHO, 2020a). The COVID-19 pandemic has caused enormous psychological impact worldwide (Pfefferbaum, & North, 2020; Torales et al., 2020). The COVID-19 outbreak means that life is changing for all of us for a while (Sun et al., 2020; Xiao, 2020). Previous pandemic such as Ebola virus, SARS, MERS, H7N9 influenza, outbreak were commonly seen to have depression, insomnia, fatigue, anxiety and stress disorder (Mak et al., 2010; Mahase, 2020; Tang et al., 2017). In the fight against the COVID-19, healthcare workers have been facing

enormous pressure, including a high risk of infection and insufficient protection from contagion, workload/work hours, frustration, over-enthusiastic media news, discrimination, isolation etc (Cai et al., 2020a; Lai et al., 2020; Xiao et al., 2020). It may causes mental health problems such as stress, anxiety, depressive symptoms, insomnia, denial, anger, fear, worried, sad, bored, lonely or frustrated (Bao et al., 2020; Duan, Zhu, 2020; Rubin, & Wessely, 2020). Mental health problems can occur in pregnancy or after birth and most common syndrome are anxiety, depression, and stress (Parfitt, & Ayers, 2014; Plant et al., 2015). The general public, children, school, college and university students are also suffering mental health problem (Brooks et al., 2020; Caulfield, & George, 2020; Dalton, Rapa, and Stein, 2020; Dong, and Bouey, 2020; Zhang, & Ma, 2020). The present review was designed to summarize the existing literature on COVID-19 and mental health of healthcare workers, the general public and patients.

2 Mental health

The outbreak of COVID-19 caused by the SARS-CoV-2 has been a tremendous effect on the mental health of healthcare workers, School Children, Col-

lege and University Students, General Public.

2.1 Healthcare workers

Healthcare workers suffer different infectious disease of an unknown nature, face many other kinds of stress as well (Greenberg et al., 2020; Siyu et al., 2020; Williamson, Murphy, & Greenberg, 2020). These sources of stress include the pressure and difficulty of the work, as well as social stigma (Chen et al., 2020; Shaw, 2020). Liang et al (2020) reported that Chinese medical staff such as 23 doctors and 36 nurses are mentally injure due to depression and anxiety. Rana et al (2020) reported that medical workers in Pakistan are suffer mental health problem due to anxiety, fear, panic attacks, posttraumatic stress symptoms, psychological distress, stigma, depressive tendencies, sleep disturbances, helplessness etc. Du et al (2020) says that out of 134 medical professionals 47 (35.1%) doctors, 55 (41.0%) nurses, and 32 (23.9%) support staff are suffering mental health due to depression and anxiety. Neto et al (2020) reported that health professionals are infected mental health problem due to every day look death in the eye. Kang et al (2020a) account that 1230 medical workers are distress mental health difficulty in Wuhan, China, who dealing with the 2019 novel coronavirus. Wang et al (2020a) reported that 40 medical workers are infected among the 138 hospitalized patients. A recent study of total 1257 medical workers in Wuhan China demonstrated that 764 (60.8%) nurses and frontline 493 (39.2%) physicians are particularly vulnerable to experiencing depression, anxiety, insomnia and distress in these work conditions. Liu et al (2020a) reported that 39.6% doctors and 60.4% nurses are suffering depression and anxiety during COVID-19 epidemic in China. A recent study shows that among 994 participants, including 183 (18.4%) doctors and 811 (81.6%) nursing staff working in Wuhan are facing mental health problem due subthreshold disturbances, mild disturbances, moderate disturbances, and severe disturbance in 36.9%, 34.4%, 22.4%, and 6.2% respectively (Kang et al., 2020b). Different study shows that emotional distress is also the reason for mental health of medical staff during COVID-19 (Montemurro, 2020; Mukhtar, 2020). Cai et al (2020b) study reported that, total of 1521 health care workers suffer mental health problem such as somatization, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, psychoticism etc. Zhu et al (2020a,b) reported that first-line medical staffs are mentally unsecure due to anxiety and depression Symptoms in Gansu.

2.2 School Children

During the emerging stage of the COVID-19, children and youngsters are confined to their homes; this includes primary and secondary students and preschool children (Li et al., 2020b). According to UNESCO, schools have been suspended nationwide in 188 countries, as of April 8, 2020. Children are experience fears, uncertainties, and physical and social isolation and may miss school for a long period (Armitage, & Nellums, 2020a; Xiang, Zhang, and Kuwahara, 2020). Lee (2020) says that children and adolescent are more mentally affected due to school closures during COVID-19. Ishimoto et al (2020) reported that emotional mental symptom are occurs in children's in Japan due to school closures to prevent the spread of COVID-19. During the COVID-19 outbreak, children are suffering attention deficit hyperactivity disorder (ADHD) behaviours symptoms, which significantly worsened in comparison to their normal condition (Zhang et al., 2020). Liu et al (2020b) says that mental distress of children are occurs who are quarantined because of COVID-19. Different report says that, children who are quarantined at home with their parents or relatives are also effected some mental problem (Wang et al., 2020b; Xie et al., 2020). Jiao et al (2020) says that behavioral and emotional disorders are occurs in children during the COVID-19 pandemic in China.

2.3 College and University Students

Many universities and colleges decided to suspend all the classes and examination during lockdown period to minimize the COVID-19. Kaparounaki et al (2020) reported that during the lockdown period, 1000 university students in Greece, who are suffering mental health problem such as anxiety (42.5%), depression (74.3%), and suicidal thoughts (63.3%) and also sleep tendency increased in 66.3%. A recent study of total 7,143 students in China, indicated that the student are suffering 0.9% (62) severe anxiety, 2.7% (196) moderate anxiety, 21.3% (1518) mild anxiety and 75.1% (5367) normal (Cao et al., 2020). The psychological impact of college student has been a critical disruptor, creating anxiety, depression and uncertainty (CNN, 2020). Huang and Liu (2020) reported that nursing college students are suffering emotional disorder during COVID-19 outbreak. Tang et al (2020) reported that total 2501 home-quarantined students from six southwest Chinese universities are suffering mental health difficulty such as alexithymia, depression, and Post-traumatic stress disorder (PTSD). Zhai and Du (2020) reported

that international Chinese students affected mental health problem by the COVID-19 outbreak.

look after sleep, quality sleep makes difference etc ((Banerjee, 2020; Dickerson, 2020; WHO, 2020b).

2.4 Mental Health in the General Public

Yuan et al (2020) reported that parents of hospitalized children are suffering anxiety and depression during the COVID-19 epidemic in China. Klomek (2020) says that some people mentally depress during this pandemic situation and attempt to suicide. During this pandemic situation huge number of job losses and the globally unemployment rate would rise from 4.936% to 5.644%. This unemployment rate increases the suicide rates (Markowitz, 2020). Yang (2020) et al reported that older adults in China are suffering mental health during the COVID-19 outbreak. Mental health stress has been caused by COVID-19 of pregnant women (Matvienko-Sikar, Meedya, & Ravaldi, 2020; Rashidi Fakari, & Simbar, 2020; Zeng et al., 2020). Recent studies specify that mental health is affected in the general public (Sonderskov et al., 2020). Zulkifli et al (2020) reported that 31 year old man suffering psychotic disorder in Malaysia. Zandifar and Badrfam (2020) say that Iranian people are suffer stress and mental morbidity due to the unpredictability, insecurity, and seriousness of the disease. Brooks et al (2020) and Zhou et al (2020) reported that people are mentally stressed during this pandemic due to financial loss and job insecurity. Júnior et al (2020) reported that many mental risk factors (such as poor standards of hygiene, poor nutrition, slight sanitation, lack of access to protection, health care, public services, and safety) faced by refugees with the COVID-19 pandemic. Percudani et al (2020) describe the mental health problem in Lombardy region in Italy during COVID-19 outbreak. In this pandemic war situation many paper reported that general people are mentally unfit due to the anxiety, fear, stress, and depression (Asmundson, & Taylor, 2020; Dong, & Bouey, 2020; Ho et al., 2020; Jiang et al., 2020; Liebreinz et al., 2020; Liem et al., 2020; Shigemura et al., 2020; Tsai, & Wilson, 2020; Yao, Chen, & Xu, 2020; Zhu et al., 2020b; Zheng, 2020).

3 Prevention and Control

There are different way we can reduce the mental health problem during this pandemic situations such as, stay connected with people, talk about your worries, support and help others, feel prepared, look after your body, stick to the facts, stay on top of difficult feelings, do things you enjoy, focus on the present,

3.1 Protect Front-Line Workers

Nurses, doctors, healthcare workers, and other medical professionals who are testing for and treating patients with COVID-19 are at a higher risk of contracting it than the general public (Lai et al, 2020). They are work under high stress environment. Maintaining workers mental health is essential to better prevention and control infectious diseases (Banerjee, 2020; Xiang et al., 2020). In the global response, the safety of health-care workers must be ensured.

- Social support was very much important to minimize the mental health of healthcare workers (Yamamoto et al., 2020).
- Adequate rest, nutrition and hydration are also essential components of maintaining physical wellbeing (Huang et al., 2020b; Jun, Tucker, & Melnyk, 2020).
- Many health workers have faced violent attack from people in the society. So it is necessary that govt. protect health workers.
- Successful recovery planning should reduce the beginning of mental sickness (Greenberg, Brooks, Wesely, Tracy, 2020; Greenberg et al., 2020; RCP, 2020).

3.2 Children, Young People and their Parents and Carers

The mental health of children, young people and their parents and carers, is a main concern. Quarantine and isolation may also lead to acute stress disorder, PTSD and grief in many children and adolescents (Christie, and Viner, 2005; Dalton, Rapa, and Stein, 2020). According to UNICEF, “The first 1000 days can shape a child’s future. We have one chance to get it right, which also extends to the first 5 years. Brazendale et al (2017) and Wang et al (2019) reported that when children are out of school, they are physically less active, and rough sleep pattern. Different literature shows that how the family member reduce the mental health problem of children’s and this are as : Avoid discussing the pandemic related topic frequently in front of children, answer questions honestly, don’t dismiss their worries, don’t make false promises, playing board games, cards, carrom, antakshari, etc (Dalton, Rapa, and Stein, 2020; Wang et al., 2020b). Anxiety and depression are the most common mental health disorders among young adults. Different life experiences affect a person’s risk for suicide. Wols et al (2020) suggest that motiva-

tion to change and mindsets in a game to improve the mental health of young adults. Wang et al (2020c) reported that how Chinese universities manage the risk factor of COVID-19. High intensity interval training (HIIT) has received much interest for university students to achieving maximum health benefits in minimal time (Eather et al., 2020). Recently Varalakshmi, and Arunachalam (2020) published a paper where both are discuss the role of a faculty members to reduce the mental health problem of students.

3.3 Adults and the Olds

Adults also require attention (Mendelson, & Eaton, 2018; Montemurro, 2020). The common mental ill healths in older adults are depression, delirium, fear of contracting COVID-19, fear of spreading the infection to others, health anxiety, and dementia (Yao, Chen, and Xu, 2020). Teychenne et al (2020) were proposed the physical activity guidelines for preventing the mental health of adults. The global physical activity recommendations for adults mental health describe the type (e.g. aerobic, strength), bouts (short or long), dose (e.g. duration, frequency, intensity and/or volume), and Life domain (Piercy et al., 2018). The first step is increasing the consciousness about mental health topics among the older adults and their family members via social media (Yang et al., 2020). DePierro, Lowe, and Katz (2020) compare mental health between 9/11 and the COVID-19 pandemic and suggest some efficient prevention measures, likely short and long-term treatment needs, and vulnerable subgroups. Hiremath et al (2020) reported the different type of tips to overcome the mental health problems (such as anxiety, loneliness, stress threshold, negative emotional spirals, desperation, financial strain, apprehension about future, panic and fear) during this lock-down periods. Liu et al (2020c) reported that online mental health services are provided in China during the COVID-19 outbreak. Tanoue et al (2020) survey among the 16402 people in Japan and the result indicate that urgent need mental health and psychosocial support. Recent study reported that keep in regular contact with loved ones, learn simple daily physical exercises, Telemedicine used, public awareness campaign and online learning programs are reduce the odds mental ill-health (Armitage, and Nellums, 2020b; Calton et al., 2020; Carbone, 2020; Kelly, 2020; Qiu, Zhou, Liu, Yuan, 2020; Qiu et al., 2020; Zhang, Wu, Zhao, & Zhang, 2020; Zhou et al., 2020).

4 Conclusion

This study highlights the importance of viewing, preventing and treating psychiatric prefix, which may exert a thoughtful power on revival from psychiatric diseases. There is uncountable evidence that COVID-19 can cause extensive fear, panic, depression, anxiety and xenophobia due to the social distancing, unemployment and extensive financial instability etc. Protecting frontline health workers is a significant part of public fitness measures for addressing the COVID-19 pandemic. Successful recovery arrangement should reduce the onset of mental ill health while maximizing the chance for psychological development. To prevent, governments should implement urgent solutions such as mental health assessment, online physician counseling, support, treatment, and services.

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