Psychosocial Issues Related to Corona Virus Disease

Aman Mahajan and Charu Mahajan

9.1 Introduction

Coronavirus disease 2019 (COVID-19) was declared a pandemic by the World Health Organization (WHO) on March 11, 2020. This is the first time the WHO called an outbreak a pandemic since H1N1 in 2009. The serious health risk which it has posed is nothing which has been seen in the last 100 years since the Spanish flu of 1917. COVID-19 has spread to more than 184 countries. While affecting physical health has been its major issue, the psychosocial perspective is equally important. Due to COVID-19’s high mortality rate in comparison to seasonal flu, lack of pharmacological interventions, and easy transmission, various strategies to prevent spread of virus have been implemented [1, 2]. The global mass quarantine of this kind, for an infectious disease, is unique in the history of mankind. With widespread lockdown, social distancing norms, shutdown of schools, work from home orders, people stuck away from their loved ones, and financial crisis; life has been extremely challenging for people of all strata. This has significantly increased the psychosocial burden among people across the globe.

9.1.1 Psychosocial Issues Related to Corona Virus Disease

9.1.1.1 Corona Virus Disease and Effect on General Population

This infectious illness has brought about rapid change in everyday lives. The impositions like shelter in place, stay at home orders, and social distancing have led
to increased stress. In the initial days, there was an increased anxiety in relation to availability of essential items leading to rationing. This could amount to panic, paranoia, depression, and hoarding. Unknown nature of infection with no available cure and fear of contraction and transmission to loved ones have been a significant source of distress. This has been evident on surveys which noted that about 53.8–33.2% of the respondents had some degree of psychological impact in the initial phase of pandemic [3, 4]. Younger age, female sex, and those with comorbidity were more prone to have increased psychological burden [3].

The loneliness that quarantine and isolation have set in has been tried to be overcome by involving oneself into social networks. The lack of in-person contact with different family members and relatives has been substituted with technology. Vague and improper information through media during early phase of pandemic did rounds all over the world. The coronavirus “infodemic” of misinformation may propagate fear and panic which can spread quite fast causing public health disaster [5]. At the same time, memes to disrupt the precautionary measures by taking disease too lightly can be hazardous. Few people may become paranoid and practice repeated sanitization to the extent of developing obsessive-compulsive disease [6].

Another challenge is that with schools now closed, parents have to provide care to children at home. It is more so ever trying for parents who have to do daily chores in addition to doing official work from home. In this hour of need, parents face dual challenge of balancing and performing the duties and parenting role.

Many people have been infected over these last few months and several have died. While being affected with infection, the need for quarantine and staying away from family has added to the anxiety level. Some of families have been grief stricken to hear about their loved ones passing away and being unable to see them for the last time. The inability to go through the natural mourning process for family members may likely lead to increased adjustment disorders, prolonged grief, and posttraumatic stress disorder.

In addition to all these, economic recession has also hit hard. With millions of people filing for unemployment claims and nearly every other person affected by drop in earnings, the stress level has further increased due to financial crisis. Loss of job can lead to increased depression, anxiety, distress and low self-esteem, substance abuse, and even suicide rate. This can result in inability to pay for housing and increased incidence of homelessness. Financial crisis may lead to increased stress among couples. There has been rise in the frequency of incidents of domestic violence during the quarantine [7, 8]. Social isolation, depression, financial crisis, alcoholism, and lack of social support have led to increase in conflict. Such marital conflicts are extremely bad for the mental health of family as a whole and may result in separation.

Elderly population may be more susceptible than other ages, to develop serious illness if they contract COVID-19 infection. Aging is associated with decreased immunity, chronic illnesses, and comorbidities, making them vulnerable. This can be an immense source of anxiety and stress for them [9]. Due to increased risk of infection, it is more important for them to practice social distancing. This can lead to limited interactions with caregivers, compromised care, and increased feelings of loneliness. The cognitive decline if present may make it challenging for them to
understand the situation and practice protective measures. It was likely for them to be distressed in case of limited supply of essentials or medicines at home during lockdown period. The limited access to medical facilities with strict stay at home order could worsen their ailments. Moreover, being technically unaware of how to put Internet services to a good use is a big disadvantage for elderly people. Being away from their children or losing a close one may lead to exaggerated emotional lability and depression.

9.1.2 Corona Virus Disease and Healthcare Workers

COVID-19 disease has also led to unprecedented psychological stress on frontline health workers. The healthcare workers (HCW) form an especially high-risk group exposed to infection with thousands being infected and sacrificing health to battle this virus. Any pandemic or epidemic illness like COVID-19 or Middle East respiratory syndrome coronavirus (MERS-CoV) imposes a significant level of stress and anxiety on frontline healthcare workers caring for infected individuals. There is risk of contracting infection and in turn transmitting infection to families or close associates. This reinforces importance of providing them with adequate infection prevention and control measures so that anxiety can be allayed to some extent and they are able to work better [10].

The shortage of personal protective equipment for health workers in initial days of pandemic had increased concerns. About 9% of the people affected in Italy are HCW [11]. A lot of frontline healthcare workers have to face worst-case scenarios of being exposed to high viral load of COVID-19 infection, putting them at high risk. They are left with making painstaking decisions leading to urgency of making or reviewing their wills/power of attorney and life insurance policies. With the progressive nature of illness in few cases, this raises concern for foreign healthcare workers in the United States whose family is in native country. The professional responsibilities of working in difficult conditions in hospitals, self-isolating themselves after catering to positive patients, along with concern for one’s own health and loved ones, have subjected HCW to significant stress and anxiety. In addition, various HCW have to deal with psychological distress of losing patients. There is further lack of treatment availability and unpredictability of the nature of the virus. It is all more important that organizations are implementing appropriate strategies to support the mental well-being of their staff. The sudden surge of cases is likely to invoke feeling of fear, anxiety, and extreme stress. There is risk of burnout and fear of incompetence due to unpredictability of the disease progression [12]. The exhaustion and fatigue at workplace can stress them immensely compromising their physical and mental well-being. The additional financial burden by curtailment of salaries along with increased workload has placed them in a stressful situation. Few HCW may even develop posttraumatic stress disorder, years after epidemic [13].

There have been incidences of increased marginalization and stigmatization against medical communities. At-risk groups include staff who have to face increased marginalization and victimization with some being blamed even for the
etiology and onset of the infection. Previous research indicates that frontline healthcare staff may experience both self and social stigma [14]. While the HCW have been celebrated as heroes at places, there are several reports of violence against them in various countries [15]. This has been quite disheartening and is a major area of concern and worry.

In addition, the personal responsibilities of HCW still remains the same as any other person, and they are supposed to fulfill them too.

### 9.1.3 Corona Virus Disease and Children

Children who are wistfully the most vulnerable group need special attention during these times. With closure of schools and playgrounds and social distancing, children have been forced to stay at home. This has led to lack of social support, increased loneliness, isolation, and disruption of social functioning. Parents are facing dual challenge of performing professional duties and balancing it with parenting role. The inability of parents to cope can lead to domino effect on kids. Restrictions like social distancing and closure of schools have made children turn toward electronic media, both for the purpose of learning and entertainment. While it is irreplaceable in day-to-day lives, few exposed ones may become addicted to Internet resulting in difficulty in re-adaptation later, after the crisis is over [16]. The risk of exposure to harmful content, cyberbullying, and online gaming and gambling is the serious harmful effects of screen time. Pre-existing socioeconomic and geographical differences accentuate the digital divide, i.e., educational facilities depend upon Internet connection, speed, and devices. Moreover, less educated and poor parents may be unable to assist their children during online education [17].

It is always difficult to have conversation in relation to public health emergencies like this. This can cause a lot of distress among children and adolescents leading to them asking questions about their own safety and safety of immediate family members. It is all more important that one is providing reassurance and giving accurate information as social media can give mixed information making them more confused. The disturbing news and images on media can have a long-lasting impact on their minds [18]. This has been extremely worrying for children who are concerned for their own as well as loved one’s safety.

Small children affected by COVID-19 disease may need institutional care or quarantine, and staying away from family may be unbearable for them. Loss of parents due to illness can lead to kids ending up in foster care and social isolation. Such children may suffer loneliness, intense grief, and adversity. This can significantly impact their sense of security and safety, leading to long-term emotional problems due to failure to resolve the loss of loved one. This can lead to children switching school, living with a different parent, or even working to support their family. Such children are likely to have posttraumatic stress disorders and development of somatic diseases in later life. The child’s natural stress response may become dysregulated in response to extreme stress at a young age. This results in persistent elevation of proinflammatory cytokines and cortisol resulting in development of
somatic disorders. There can be development of diabetes, asthma, decreased immunity leading to recurrent infections, sleep disturbances, cognitive disturbances, and other negative health outcomes [19].

The stress of parents directly affects children. This is an important implication for children of HCW [20]. Financial hardship has badly affected children, causing a possible surge in school dropout. Financial crisis and marital conflicts can increase stress among parents leading to ineffective parenting and risk of physical and emotional abuse of children [21]. This can significantly impact the education of children leading to repeating a grade and getting lower grades, and for high school graduates, it can affect their future prospects. The school and situations have also been affected causing increased stress to children. It had led to postponement of various examinations. All this can lead to increased risk of mental illness and behavioral and psychological problems. Lack of coping skills can lead to increased substance abuse and even self-harm behaviors.

9.2 Signs and Symptoms

Historically Great Depression in the early 1930s was the greatest economic recession of the modern world that was associated with significant increase in depressive symptoms and other mental health problems. As a result, there was an increase in incidence of suicide [22, 23]. Similarly, an increase in rate of depression, anxiety, substance abuse, and posttraumatic stress disorder (PTSD) following natural disasters, such as earthquakes, tsunamis, hurricanes, or floods, has been observed [24].

Viral infections may infect the central nervous system resulting in neuropsychiatric disorders.

Though the exact pathogenesis is not known, the cerebrovascular prothrombotic state, brain hypoxia, inflammation, and immunological response may play a significant role [25]. The social factors may have an added effect on the development of psychiatric consequences.

There are many concerns about the COVID-19 disease that with passage of time will become more clear, and psychological effects are one of these. Other epidemics like polio, HIV, Ebola, MRSA, and SARS were not as widespread as this one, implicating lesser psychosocial impact. Past studies indicate effect of quarantine during SARS 2003 pandemic on mental health resulting in high rates of depression (31.2%) and anxiety (28.9%) [26]. Also, elevated levels of anxiety were observed during the 2009 H1N1 pandemic as well [27]. The stay at home orders and perceived impact of COVID-19 on daily life have been seen to be independently associated with severe psychological outcomes. The implementation of stay at home orders has led to significant social, psychological, and economic impact. This has led to increased anxiety, depression, and PTSD. There were concerns about increased perception of risk for self-harm to one’s physical financial and social health resulting in increased anxiety. There are also concerns about increased feelings of loneliness and social isolation. Studies have found association between sex and psychological outcomes [2]. However, there was limited data about the long-term associations.
The psychological impact of quarantine is wide-ranging and substantial and can be long-lasting [28]. The income level was inversely associated with anxiety, loneliness, and financial worries and directly associated with perceived social support. The individuals with lower incomes may be particularly at risk for negative psychological outcomes of COVID-19.

A recent systematic review of 3559 patients admitted to hospital for SARS or MERS studied the psychiatric and neuropsychiatric presentations associated with severe coronavirus infections [25]. These included studies involving patients having SARS-CoV (2068 cases), MERS-CoV (515 cases), and SARS-CoV-2 (976 cases) infection. There was high incidence of depressed mood (32.6%), anxiety (35.7%), impaired memory (34.1%), insomnia (41.9%), impaired concentration (38.2%), and confusion (27.9%). The others include emotional lability, euphoria, aggression, irritability, persecutory ideas, suicidality, and auditory or visual hallucinations. So, while symptoms associated with delirium are common in acute stage, a high incidence of anxiety, fatigue, and posttraumatic stress disorder was seen in post-illness stage of previous coronavirus epidemics. The female sex was found to be significantly associated with development of psychiatric symptoms. However, the long-term psychological effects of coronavirus infection are still unknown. The patients having mild disease have not been studied, and true incidence might be more than what is known. In another systematic review by Luo et al., the prevalence of anxiety and depression was highest among patients with pre-existing conditions and COVID-19 infection (56% [39–73%] and 55% [48–62%], respectively), and it was similar between healthcare workers and the general public [29].

The HCW are likely to suffer psychological burden. It has been seen that medical health workers with an organic disease are more likely to suffer psychological burden like anxiety, depression, insomnia, and OCD [30, 31]. The female HCW, pregnant HCW, and older HCW form a high risk group [32]. The death prospects of sick COVID-19 patients can affect HCW tremendously leading to depression. Fear is common among HCW but still less than general population because of better health literacy [32]. PTSD symptoms usually manifest months after the traumatic experience. Though it may be too early to be evident for COVID-19 pandemic, cases have been proven for other coronavirus diseases.

Psychiatric patients may suffer worsening of their symptoms. People having increased health anxiety can avoid getting medical care due to fear of infection. This may potentially cause further increase risk of getting infected with COVID-19 if they have pre-existing physical health issues [33].

Loades et al. highlighted that children and adolescents are more likely to have high rates of depression and anxiety during periods of social isolation and loneliness [34]. In terms of emotions, it can make one more anxious, depressed, feel guilty and angry, poorly motivated, and feel overwhelmed easily. It’s more important to monitor signs of stress as small changes in behavior like increased or decreased energy levels, use of illicit drugs, increased irritability, crying spells, increased anxiety, blaming other people, and anhedonia. The stress can also cause somatic symptoms like stomachache, diarrhea, eating disorders, and headache. It may also lead to
worsening of mental health conditions and chronic health problems [35]. PTSD may be commonly seen in children as well as adults who undergo immense grief and distress. One needs to closely monitor for increased anxiety, intrusive thoughts, sleep disturbances, mood changes, and separation anxiety. This can spiral down to children being depressed, having low self-worth, feeling inadequate, and having poor self-esteem. Children can start blaming themselves for parent’s conflict and separation leading to increased feelings of guilt, anger, and low self-esteem. Lack of stable environment at home can significantly impact school performance, concentration, and behaviors. COVID-19 has led to children having increased fear and anxiety about their own health and health of loved ones. This can lead to worsening of mental health conditions and chronic health problems. Moreover relatives or acquaintances infected with COVID-19 are also risk factor for increasing the anxiety of college students [34]. Stay at home and social distancing have led to increase in feeling of loneliness which can lead to increased alcohol use and suicide risk [36, 37]. Suicidal ideation is another major mental health risk among adolescents. While suicide is the tenth leading cause of death overall, it is the second leading cause of death among adolescence ages 12–17. Existing mental illness among adolescents may be exacerbated by social isolation and school closure. Table 9.1 summarizes the common symptoms seen and the risk factors involved.

| Symptoms | Risk factors |
|----------|--------------|
| General population |
| Depressed mood |
| Anxiety |
| Fear |
| Insomnia |
| Impaired concentration |
| Confusion |
| Emotional lability |
| Euphoria |
| Aggression |
| Irritability |
| Persecutory ideas |
| Suicidality |
| Auditory or visual hallucinations |
| Female sex |
| Healthcare worker |
| Previous chronic physical illness |
| Death of relative due to SARS |
| Lack of psychological preparedness |
| Having high risks of contracting COVID-19 |
| Having lower socioeconomic status |
| Social isolation |
| Unsteady family |
| Higher social media exposure |
| COVID-19 patients |
| Anxiety |
| Panic |
| Mood disorder |
| Depression |
| Loneliness |
| PTSD |
| Chronic illness |
| Longer period of quarantine |
| Lack of adequate information |

(continued)
While the psychosocial impact has been felt all across different places and persons, it has been seen that few factors also protect against greater psychological distress. These include family support, having sufficient local medical resources, having highly efficient health systems and effective prevention and control measures against the epidemic, having up-to-date and accurate health information, and taking precautionary measures (e.g., hand hygiene, wearing masks). Because of lack of pharmacological interventions, public health interventions like social distancing and stay at home orders are important to reduce the spread of infection in the community. This distancing from people can lead to loneliness leading to psychological problems. This highlights the importance of social connection and social support [39]. There is increased risk of adverse mental health outcomes among patients with pre-existing mental disorders. Such patients may need to increase frequency of contact and help from mental health providers. People who have lost their loved ones may need more emotional support. It is important that telemental health services are available to vulnerable individuals in community. There is also need for increased online psychological therapies and self-help programs. Through these people should be encouraged to maintain regular sleep, do physical exercise, remain socially connected, and learn how to manage stress and coping strategies.
and prevention of addictions [39]. People should not feel alone, and a telephonic support line can be provided with social networking to allay loneliness [40]. This holds special importance for the quarantined people and the elderly strata. As a society, help should be readily given to those in need while maintaining physical distance. Communication with family members who are staying distant by means of video call can be extremely helpful for allaying isolation. There is increased need for primary care mental health surveillance through routine screening for various mental illnesses and greater availability of services to enable larger number of affected individuals to receive treatment. For people having suicidal ideation, it is important to maintain social connection with them. Telephone-based outreach and caring letter intervention have been seen to reduce the suicide rate. The provision of telemental health treatment should be put in use effectively [41].

Various national healthcare systems of different countries have been pushed to limits. Healthcare professionals are vulnerable to adverse mental health consequences. There is need for increased emotional and physical support and flexible working hours during these times.

Both health professionals and general public are under increased stress and need psychological crisis intervention which may play a very important role to prevent long-term negative mental health consequences. Various mental health organizations have compiled educational articles and videos for general public and mental health professionals to help mitigate the effect of COVID-19 on mental health. A digital support package has been developed in the United Kingdom (UK) which includes evidence-based guidance, support, and signposting relating to psychosocial well-being for UK healthcare employees [41]. It outlines the steps that team leaders can take like providing psychologically safe spaces for staff along with guidance on reducing social stigma and improving peer and family support. It also includes advice from various mental health professionals on learning how to manage emotions and promote self-care [42].

It is of utmost importance to attend children’s physical, mental, and emotional well-being. At this time of need, the children and adolescents are looking up to adults on how to respond.

We should provide children with reassurance, make them feel safe, and at the same time gradually build resilience. There is need for educating parents about how to balance work as well as to take care of children at home. Constant media coverage can also lead to increased stress and anxiety. This reinforces importance of facts being reported effectively in the media. Any uncertainty and inaccuracy can lead to feelings of increased anxiety. The parents can provide support by explaining the facts, limiting exposure to news coverage, having regular routine, and being a role model [43]. Prospective longitudinal studies have concluded heightened stress response during and in the immediate aftermath of threatening event can lead to adverse physical and mental health outcomes over time [44]. Intervention programs should be implemented by local government agencies to serve children and their caregivers. These should focus on improving parenting skills, being more understanding and responsive to their needs, protecting them from negative experiences,
assisting them in their problems, and mentoring them. Skill building opportunities and cognitively based compassion training for older children help to build self-esteem, self-efficiency and for their future targets [45].

The WHO Department of Mental Health and Substance have issued a series of messages with an aim to support mental and psychosocial well-being of population [46].

For the general population, the key messages are:

- Stigma should not be attached to people who contract the COVID-19 infection. They should be provided with support and treated with compassion.
- One should minimize watching, reading, or listening to news about disease that makes one feel distressed and anxious. The information should be sought only from trusted sources which will help to eliminate misinformation and rumors. Getting facts right helps in minimizing fear.
- It is the responsibility to protect oneself but we should also be supportive to others. Solidarity in community can help fight COVID-19 together.
- People who have recovered from the disease can willingly share their experience in the community. Positive news can uplift the morale of the others and minimize fear.
- HCW and others who are supporting COVID-19 patients should be applauded for their effort in saving lives.
- Older adults who are in isolation or quarantine may become more stressed and anxious and experience mood disorders. They should be provided with practical and emotional help by their families and health staff.
- Older adults should be informed of ways to protect themselves from infection in a clear, concise, respectful, and patient way. Family members should help them to practice protective measures.
- Elderly people should have access to medications that they are using for chronic health conditions. Their social contacts should provide assistance if required.
- Physical exercise should be performed at home to maintain mobility.
- Regular schedules should be followed for daily chores and hobbies. Regular contact with family and loved ones is essential.
- Similarly, for the HCW and the managers in health facilities, WHO has issued certain messages as under.
- It is likely to feel under pressure in the current situation, but this does not mean that one is weak. Managing one’s mental and psychosocial well-being is as important as managing the physical health.
- Useful coping strategies are sufficient rest and respite during work or between shifts, healthy eating habits, engaging in physical activity, and staying connected with family and friends. Use of tobacco, alcohol, or other drugs should be totally avoided. Any activity that de-stresses one should be used.
- Few HCW may face social stigma due to the fear and misinformation. The best way is to stay connected to your loved ones and share your experiences with your colleagues, manager, or other whom one trusts.
• People with intellectual, cognitive, and psychosocial disabilities may need understandable ways other than written information to make them aware.
• One should provide support to people affected by COVID-19 especially those who require mental or psychosocial support and direct them to available resources. Even health staff and their managers may face stress and need mental support at times. All should be aware where and how to access mental health and psychosocial support services.
• The managers in health facilities should ensure protection of their staff from chronic stress and poor mental health by focusing on long-term occupational capacity.
• Staff should be updated with accurate information, and good quality communication should be ensured. Provide support to workers by rotating them from higher-stress to lower-stress work areas. They should be allowed to work in pairs to feel more stress free and secure. Work breaks and flexible work schedule may be followed for those who are affected by a stressful event. Social support among colleagues should be encouraged.
• All responders, health staff, volunteers, social leaders, and social workers should be able to provide basic emotional support to affected people.
• Urgent neurological and mental health complaints should be managed within emergency or general healthcare facilities and should be adequately staffed.
• All essential psychotropic medications should be made available at all levels of health care.

For the caregivers of children, the important points to remember are:

• We should help children find positive ways to express their emotions, so that they can feel relieved. This can be done in the form of playing, drawing, etc.
• Children should not be separated from their parents and family as far as possible. If, for any reason, child is separated (quarantine, etc.), regular contact by telephonic or video calls with parents should be ensured.
• A routine at home should be followed which should include time for learning, playing, physical exercise, etc.
• Honest and age-appropriate communication about COVID-19 will help to ease their anxiety. Adults should set themselves as mentor and lead by example.

The pandemic has changed the world around us, and time will unfold what holds for us in the future. In the meantime, it is our duty to extend help to each other and maintain solidarity and harmony. Government should earnestly develop prevention and counselling models for the vulnerable section of society. Psychological resilience will help mankind to survive and flourish in future.
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