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## Corona Virus and Mental Health

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### Abstract

The corona virus disease 2019 (COVID-19), originated in China has become a global pandemic. It is having an adverse effect on psychological, social, mental and physical health of society. It is a matter of great concern how the consequences of mental health issues can be mitigated during this global pandemic. This paper stresses on various mental health issues during the pandemic, their respective causes and some points to solve the arising problem. Some common psychological reactions to COVID-19 pandemic include stress, anxiety, depression, loneliness and disturbed sleep. About one third of COVID-19 patients admitted to Intensive Care Units (ICU) for respiratory difficulties exhibit neurological symptoms. Evolution of COVID-19 outburst into a pandemic, and the need of social distancing and quarantine has exaggerated the incidents of mental health disorders including Post-traumatic stress disorder (PTSD). To address the issue effectively, complete and absolute evaluation of previous epidemics is required. Integration of behavioural and physical health services can be of great help to reduce the issue to a certain level. Educating people about expected psychological impact and reactions to trauma and making sure they understand that a psychological reaction is normal can be very helpful.

Keywords: pandemic, stress, anxiety, depression, Post-traumatic stress disorder

### Introduction

As stated by WHO, coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered corona virus. Most of the COVID-19 infected patients experience mild to moderate respiratory illness. At present there is no specific vaccine or treatment for the disease. More than seventy six lakh people have tested positive for this deadly virus by June 12, 2020 with over 4.2 lakh deaths. The number being highest in USA with around 20 lakh total cases and 1.16 lakh deaths. India became the fourth worst in number of corona cases with over 3 lakh cases. These numbers are rising exponentially and there is need to flatten the curve.

Lockdown and quarantined life has put a pause on social life by shutting down schools, colleges, restaurants and all other public places. All this gives rise to a feeling of loneliness, depression, anxiety and stress. Along with all the physical problems, this deadly virus is affecting mentally and psychosocially, due to its enormous outburst globally. Although nations worldwide are putting a great effort in breaking the transmission chain and treating the infected patients, yet the issue of mental health problems should be discussed and resolved at the most. Moreover, economic downfall during this pandemic has become a major issue concerning even the biggest democracies of the world.

To address mental health crisis during this pandemic, it is high time to implement multifaceted approach (i.e. forming multidisciplinary mental health team, providing psychiatric treatments and other mental health services, utilising online counselling platforms, rehabilitation program, ensuring certain care for vulnerable groups, etc.)

### Methodology

The current paper is a narrative review of the existing literature on mental health issues; their symptoms and causes, and interventions related to the COVID-19 pandemic. Some of the case studies are done from trusted news articles and sites. Search of the electronic database was undertaken using the search terms “COVID-19”, “coronavirus pandemic”, “depression”, “anxiety”, “quarantine”, “self isolation”, “psychiatry”, “mental health” in various permutations and combinations. A careful review of some citations was done using this method.

### Discussion

Epidemics are health emergencies in which human life is threatened and there are significant numbers of sick and dead. This corona virus pandemic has threatened the entire globe with its contagious effect, and became the cause of death of thousands of individuals in the world. In terms of mental health, a major pandemic/ epidemic implies a psychological disturbance that can exceed the affected population’s capacity to handle the situation. It can even be said that the entire population experiences stress and anguish to some extent. Thus, it is estimated that there is an increase in incidences of psychological disorders. Moreover, it should be noted that not all the psychological and social problems that occur can be described as diseases; the majority are normal reactions to an abnormal situation. Considering psychological aspects of previous pandemics, awareness about mental health among individuals has increased. Society is concerned about the psychological effects of the current pandemic.

WHO has also expressed concern over this pandemic as a consequence of mental and psychosocial health. It is speculated that new measures such as self isolation and quarantine have influenced ordinary activities, routines, and people’s livelihoods that might cause increased loneliness, anxiety, depression, insomnia, dangerous alcohol, and drug abuse, and self injury or suicide.

### Causes of some psychological problems during COVID-19 pandemic

Corona virus has spread its infection all around the world and is spreading exponentially. Authorities are taking strict actions to prevent its spread but those might result into long term psychological problems. Some of the causes of these problems are discussed here:

- Social distancing

Social distancing also called “physical distancing” means maintaining distancing between yourself and other people outside of your home. To maintain social distancing:-

- Stay at least 6 feet ( about 2 arms' length) from other people
- Do not gather in groups
- Stay outside of crowded places and avoid mass gatherings

COVID-19 pandemic has forced people to maintain distance from others. People are not allowed to meet socially and physically with their friends, family and their loved ones. All the public meetings, gatherings, and functions may it be wedding or festival, or death ceremony or birthday parties are either cancelled or postponed.

Due to being locked in a place for long time, people develop feelings of anxiety, stress, depression and loneliness among themselves, especially the older ones. The elderly are particularly vulnerable during isolation. Social isolation and loneliness in the elderly lead to a higher risk of a variety of physical and mental conditions as well as cognitive decline and Alzheimer’s disease, even earlier death.

With fewer people hugging and greeting each other during the pandemic, we are losing one of our essential human connections – TOUCH. Human touch releases a hormone called 'oxytocin'. Some research has shown that lower levels of oxytocin has resulted in higher levels of stress and anxiety.

Under lockdown conditions, mental health fluctuates with difficulties of loneliness and lack of routine. Chronic depression, unwillingness to live, and clinical depression are common problems among people during these times while social distancing and isolation are the only way to protect them from the disease, but at the same time it triggers the feeling of alienation and insecurity. With lockdown and pandemic, these feelings are heightened.

- Quarantine

Quarantine is the separation and restriction of movement of people who have potentially been exposed to a contagious disease to ascertain if they become unwell, so reducing the risk of them infecting others. ( Brooks et al., 2020)

The enforcement of quarantine law and clamping of a nationwide lockdown from March25,2020 to June8,2020 in the backdrop of the COVID-19 outbreak in India is cloaked under Disaster Management Act,2005.

Quarantine is known to cause certain psychological problems due to separation from loved ones, loss of daily routine, loss of freedom, boredom, uncertainty over disease status and loneliness. Longer durations of quarantine results in poorer mental health. Condition even worsens, when the duration is uncertain.

Some psychological issues due to quarantine include insomnia, irritability, poor concentration, indecisiveness, deteriorating work performance, reluctance to work, depression, stress, anger, low mood and post traumatic stress symptoms. Quarantine is known to result in financial loss and create socio economic distress and can be a risk factor for symptoms of psychological disorders and both anger and anxiety several months after quarantine. People with lower incomes are more likely to be affected by the temporary loss of income than those with higher incomes.

Understanding the need of quarantine, officials should take every measure to ensure this period as tolerable as possible for people. This can be achieved by :-

- Telling people what is happening and why
- Providing clear communication
- Ensuring basic supplies( food, water, medical supplies)are available
- Explaining how long it will continue
- Providing meaningful activities for them to do while in quarantine
- Social media exposure

Large masses of people expose to social media during novel corona virus disease(nCOVID-19). People keep track of the numbers of cases rising per day in different countries to keep updated.

They want to be well informed about the pandemic and relaxation in laws of pandemic.

Increasing number of cases tend to increase anxiety, stress among all the social groups of society. News regarding rising cases, laws and rules imposed by government, and all the ill effects of the current situation worsen the mental and psychological condition of people.

Social media is known to intensify even a small meaningless news, sometimes even fake news.

Nowadays there is huge junk of fake news travelling through social sites like Facebook, Twitter,

WhatsApp, etc. Such trivial messages may leave a deep impact on someone's mental health. People in order to be socially active and prove their influential status, are highly active on social media and unknowingly forward fake news and messages. This may deeply impact our society.

To protect themselves from mental health problems during this pandemic, people need to stay positive and restrict the use of social media as much as possible. This highlights the need for public health officials to provide rapid, clear messages delivered efficiently for the entire affected population to promote accurate understanding of the situation.

- Lack of routine

Work is at the very core of contemporary life for most people, providing financial security, personal identity, and an opportunity to make a meaningful contribution to community life. (Source: NAMI)

Workplace is one of the key environments that affect our mental well being and health. Going to workplace is a part of daily routine which is affected due to lockdown. People face financial problems and psychological problems. Feeling of boredom, loneliness, stress and depression regarding their job insecurity might exacerbate their psychological issues.

Where appropriate, employers are considering proactive approaches that allow employees to work from to avoid financial loss and stave off boredom, but the staff in these situations might not be at their best and most productive.

- Loneliness, boredom and helplessness

Being socially isolated and quarantined, people are away from their work, daily routine, and social life. This inculcates a feeling of loneliness and boredom. Joblessness, social isolation, and lack of freedom are some of the side effects of the ongoing corona virus pandemic, which causes feeling of loneliness.

With complete lockdown the world is at pause. People lost their jobs, factories are shut down, businesses are broke and being quarantined at home with all the worries about financial, economical and social crisis initiates all the mental health problems. Loss of livelihood and fears about money and where the next meal is coming from are hitting vulnerable families hard.

People with severe mental illness are likely to be affected by existing social isolation and other social issues compounding their vulnerability such as homelessness, loneliness, and poor physical health. Homelessness puts people at risk of a range of poor mental health outcomes (Wilson, McCloughen, Parr and Jackson, 2019) and these risks are likely to be aggravated in a pandemic.

It is crucial to work collaboratively and with determination to ensure that all the people are kept as safe as possible within the constraints of the current situation.

#### Mental health issues during COVID-19

In context of the current corona virus pandemic it is of great concern to consider mental health along with physical health. Some of the mental health issues during this pandemic are as:

- Depression, anxiety and alcohol use disorder

During the COVID-19 pandemic, rate of anxiety, depression, alcohol use disorder and lower mental well being have increased significantly. People aged 21-40 years are psychologically more vulnerable during the COVID-19 pandemic.

Hung et al. (2019) conducted a cross sectional epidemiological study on a sample of 32552 Chinese people and reported twelve month prevalence and lifetime prevalence of mental health problems. In this study, twelve month prevalence was 5% for anxiety, 3.6% for depression, and 1.8% for alcohol use disorder while lifetime prevalence of anxiety was 6.8%, 7.6% for depression, and 4.4% for alcohol use disorder.

Prevalence statistics of anxiety, depression and alcohol abuse and dependence, and overall mental well being status after the COVID-19 pandemic are shown in the following table :

	Levels	Percentages
Anxiety	Mild	10.1%
	Moderate	6.0%
	Severe	12.9%
Depression	Mild	10.2%
	Moderate	17.8%
	Severe	9.1%
Alcohol use	Hazardous drinking	29.1%
	Harmful drinking	9.5%
	Alcohol dependent	1.6%
Mental well being	Lower	32.1%
	Average	49.4%
	Higher	18.4%

BAI(Beck Anxiety Inventory), a 21 item screening tool assessed the symptoms of various mental health issues by an online survey and reported the above results.29% of respondents were suffering from different forms of anxiety, while more than one third of the respondents were having different forms of depression.

During an outbreak of infectious disease, particularly in the presence of inaccurate or exaggerated information from the media, health anxiety can become excessive. Because of increased stress and negativity these times post trauma is resurfacing for a lot of people.

Unpredictability, uncertainty, seriousness of the disease, misinformation and social isolation play major role in contributing to stress and mental morbidity.(Zandifar and Badrfam, 2020)

#### • Schizophrenia

Schizophrenia is a chronic brain disorder in which people interpret reality abnormally. It affects person's ability to think, feel, and behave clearly and may result in some combination of hallucinations, delusions and extremely disordered thinking and behavior that impairs daily functioning.

Case study of a patient with schizophrenia and presenting COVID-19 related delusions and hallucinations:

A 43-year old, male patient had been hearing his neighbours' voices blaming him, as a former ambulance man, for not taking sufficient care of his patients, who could have died of COVID-19. This happened during the early phase of COVID-19 crisis in Germany( March17th,2020). The voices were recognized as hallucinations which could be a sign of worsening of his paranoid psychosis, which had been first diagnosed in 2011. He also believed that he was being observed by cameras at his home and he personally expected to have immunity to COVID-19 after already being infected by a Chinese message through a WhatsApp group.

This case report shows impact of COVID-19 crisis on the psychopathology of a patient with paranoid- hallucinatoric experiencing and unrealistic expectations and concerns.

A small study suggests that coronaviruses may pose a risk for psychotic disorders. Coronaviruses are neuroinvasive, entering the brain via the olfactory neural pathway, and have been found in human brain tissue post mortem. (Arbour et al., 2020)

Social isolation, unemployment, homelessness, relationship breakdown (divorce/ separation), domestic violence, and worsening physical health, may all particularly affect people with psychoses given their vulnerability to social determinants of health (Anglin et al., 2020). Among people with schizophrenia, social isolation may increase the risk for suicide, and stress has been associated with aggressive behavior.

Health care workers and authorities should jointly deal with the mental health problems to offer effective and timely psychological services for psychiatric patients.

- Bipolar disorder

It is a mental disorder that causes unusual shifts in mood, energy, activity levels, concentration, and the ability to carry out day-to-day tasks. People who have bipolar disorder can have periods in which they feel overly happy and energized and other periods of feeling very sad, hopeless and sluggish.

During any outbreak of an infectious disease, the population's psychological reactions play a critical role in shaping both spread of the disease and the occurrence of emotional distress and social disorder during and after the outbreak. Psychological reactions to pandemics include maladaptive behaviors, emotional distress, and defensive responses. People who are prone to psychological problems are specially vulnerable.

For Recurrent Depressive Disorder patients, lockdown is a major stress jeopardizing normal daily routine, social rhythm and thereby increasing stress levels, which would further escalate the cortisol level, resulting in a vicious exacerbation of depressive symptoms. Patients with bipolar disorder and schizophrenia are likely to have relapses due to jeopardy in both availability of regular medication and medical compliance.

#### Impact of COVID-19 on patients with pre-existing mental health problems

Quarantine and self isolation is a stressful situation which increase psychiatric morbidity. COVID19 pandemic and country wide lockdown tend to increase new cases of anxiety disorder and intensify the symptoms of already diagnosed cases. Any symptom like cold, cough, and fever increases anxiety and cause a severe impact.

OCD patients are at higher risk, especially who have checking, hoarding, and washing compulsion. Quarantine can precipitate the feeling of anxiety, anger and panic about worse possible outcome (like fear of falling ill, fear of being separated from loved ones, fear of reliving the experience of previous pandemic, etc.) boredom and loneliness. Person already having psychiatric disorder all this can lead to PTSD or even suicidal thoughts and attempts.

For patients with substance use disorder, due to inadequate accessibility to dwindling emergency services, this period could be lethal, due to non-availability of substance or medicines can lead to severe withdrawal symptoms like delirium or seizures.

#### Dealing with mental health issues

Bill Gates stated, "In any crisis, leader have two equally important responsibilities: solve the immediate problem and keep it from happening again." The COVID-19 pandemic is a case in point. We need to save lives now while also improving the way we respond to outbreaks in general. The first point is more pressing, but the second has crucial long term consequences.

WHO has also shown concern regarding mental health problems and issued 31 point guidelines to reduce the problem. These include guidelines for maintaining the mental health of different population groups affected by COVID-19 with special focus on children, women, and health care workers suggesting measures to reduce anxiety, depression, and stigma, etc.



Mitigating mental health consequences of COVID-19 pandemic will be a real challenge for country like India where only 0.29 psychiatrists, 0.07 psychologists, and another 0.36 paid mental health workers are available per 100,000 people.

Cipla's mental health partner, the South Asian Depression Anxiety Group ( SADAG) has listed some helpful tips to reduce stress during this lockdown as:-

- Maintain a daily routine
- Restrict media and social media coverage to prevent it from becoming too overwhelming . Only obtain information from credible news sources.
- Acknowledge your feelings and focus on things you can control
- Find things to keep you busy ( whether it's constructive or creative) to help lift your mood
- Stay connected with your loved ones via technology
- If you are on medication, remember to take it as prescribed

Moreover, Health authorities should consider forming multidisciplinary mental health teams at regional and national levels to deal with mental health issues and providing psychological support for both patients and health care workers.

#### Conclusion

COVID-19 outbreak affected not only physical but mental health. The deadly virus has set its foot worldwide in around 216 countries or territories or areas. The entire community including students, health care professionals, daily wage laborers and the general population are facing psychological problems caused by COVID-19 lockdown. The precautionary measures such as social distancing, avoiding public gatherings, and self isolation are thought to control the spread of pandemic but all this will have long term psychological consequences on the society. Lockdown is just a temporary solution to control COVID-19 spread and if it continues for a long time may result in many problems like psychosocial problems, social problems, economic problems and religious problems. People are scared by the increasing numbers of cases daily and fear causes stress, anxiety and depression. Studies show that during stress there is increase in levels of hormones cortisol and adrenaline, which suppresses the immune system and leaves the body vulnerable to infection and disease.

Majority of population either knowingly or unknowingly is facing some kind of psychological problem like anxiety, stress, depression, excessive anger or fear due to the current circumstances. This has all lead to increased numbers of suicide cases, domestic violence cases and unemployment. To avoid all such problems, people need to take care of themselves and their loved ones by helping them out in such hard times. Being connected without physical contact, maintaining a daily routine and engaging in extra activities like physical exercise, yoga, painting, etc. can prove helpful in keeping the mind busy and entertained. Government, mental health care workers, community groups, families and individuals can provide social assistance in overcoming mental health problems.

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