

## COVID 19 and rise of mental health issues

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COVID 19 pandemic has affected the entire human community. An unprepared public health emergency with no definitive treatment in the initial days, high morbidity and mortality, and negative communication regarding effective vaccination has led to a range of emotional reactions.<sup>1</sup> In addition to these, economic impact, loneliness due to quarantine, stigma regarding illness, uncertainty of day-to-day life has added further issues.

### Patho-physiology

Viral illnesses are known to be associated with disorders like Schizophrenia, depression, OCD and Bipolar disorder. Neuro-inflammation caused by viruses leads to psychiatric disorders.<sup>2</sup>

Evolving evidences are helping us to understand the neurotropic properties of SARS-CoV-2 virus. Early involvement and rapid retrograde axonal transport of virus to olfactory bulb leads to loss of smell and taste. Virus can enter brain through endothelial cells lining the blood-brain barrier and vagus nerve.<sup>3</sup> Cytokine storm, a dreaded immune reaction in COVID, can activate brain glial cells, which may lead to delirium.

Few other proposed mechanisms are- 1) aberrant epigenetic modifications of stress – related genes.<sup>4</sup> 2) Neuropsychiatric effect of drugs used to treat the infection and their complications. 3) High dose corticosteroids and their behavioral toxicity.

### Mental Health Problems

Few research studies done during COVID-19 pandemic have found that 40% of patients suffer from anxiety, depression, insomnia.<sup>5</sup> Few reports of mania and precipitation of psychotic symptoms were noted post discharge.

Post-traumatic stress disorder can also be seen in survivors of COVID 19, who have suffered and lost their families during the pandemic.

Sleep loss elevates inflammatory cytokines. Low grade inflammation and disproportionate host immune reactions with release of cytokines may precipitate cytokine storm. So, a healthy lifestyle, good sleep, diet and exercise may be protective against developing severe COVID 19 complications.

In Indian context, limited resources, less trained health care professionals and an overburdened healthcare system has led to burn out. Despite these limitations, the entire health community has served the public and helped them to handle the acute health crisis.

### Role of Doctors during Pandemic

As a responsible health care professional, one should shun ambivalence, thoughts of negative outcomes regarding mortality and act in the best interest of patient's well-being. We should accept all the results with equanimity, without guilt. We should encourage others working during this pandemic to uphold the dignity of work by maintaining self-discipline, mindfulness and self-reflective attitudes.

As a practicing psychiatrists, we should be prepared to handle the upcoming challenges arising out of COVID crisis in future and develop appropriate preventive approaches. Governmental agencies, public and private societies, NGO'S should work on models to improve resilience among health care professionals and the general public.

### Source of Funding

None.

### Conflict of Interest

None.

### References

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**How to cite this article:** Sai Krishna P. COVID 19 and rise of mental health issues. *Telangana J Psychiatry*. 2020;6(2):104.