COVID-19: impact on mental health

 13th November 2020

**Title**: Survivors of COVID-19 appear to be at increased risk of anxiety, insomnia or depression

The Lancet Psychiatry | 9th November 2020

Adverse mental health consequences of COVID-19, including anxiety and depression, have been widely predicted but not yet accurately measured. There are a range of physical health risk factors for COVID-19, but it is not known if there are also psychiatric risk factors.

 In this electronic health record network cohort study using data from 69 million individuals, 62 354 of whom had a diagnosis of COVID-19, the authors assessed whether a diagnosis of COVID-19 (compared with other health events) was associated with increased rates of subsequent psychiatric diagnoses, and whether patients with a history of psychiatric illness are at a higher risk of being diagnosed with COVID-19.

The study found that survivors of COVID-19 appear to be at increased risk of psychiatric sequelae, and a psychiatric diagnosis might be an independent risk factor for COVID-19.

Full article: [Bidirectional associations between COVID-19 and psychiatric disorder: retrospective cohort studies of 62 354 COVID-19 cases in the USA](https://www.thelancet.com/action/showPdf?pii=S2215-0366%2820%2930462-4)

See also: The Guardian: [Nearly one in five Covid patients later diagnosed with mental illness – study](https://www.theguardian.com/world/2020/nov/10/nearly-one-in-five-covid-patients-later-diagnosed-with-mental-illness-study)

**Title:** Trends in suicide during the covid-19 pandemic

BMJ | 2020; 371: m4352 | 12th November 2020

As many countries face new stay-at-home restrictions to curb the spread of covid-19, there are concerns that rates of suicide may increase—or have already increased. Several factors underpin these concerns, including a deterioration in population mental health, a higher prevalence of reported thoughts and behaviours of self-harm among people with covid-19,problems accessing mental health services, and evidence suggesting that previous epidemics such as SARS (2003) were associated with a rise in deaths by suicide.

Widely reported studies modelling the effect of the covid-19 pandemic on suicide rates predicted increases ranging from 1% to 145%, largely reflecting variation in underlying assumptions. Particular emphasis has been given to the effect of the pandemic on children and young people. Numerous surveys have highlighted that their mental health has been disproportionately affected, relative to older adults, and some suggest an increase in suicidal thoughts and self-harm.

One guiding principle, this editorial states, is that suicide is preventable, and action should be taken now to protect people’s mental health. We must remain vigilant and responsive, sharing evidence early and internationally in these evolving uncertain times.

Full editorial: [Trends in suicide during the covid-19 pandemic](https://www.bmj.com/content/371/bmj.m4352)

**TITLE:** NEUROCOVID-19: A CLINICAL NEUROSCIENCE-BASED APPROACH TO REDUCE SARS-COV-2 RELATED MENTAL HEALTH SEQUELAE

Journal of Psychiatric Research | Volume 130, November 2020, p215-217

Coronavirus Disease 2019 (COVID-19), caused by SARS-CoV-2, is a disaster due to not only its psychosocial impact but it also to its direct effects on the brain. The latest evidence suggests it has neuroinvasive mechanisms, in addition to neurological manifestations, and as seen in past pandemics, long-term sequelae are expected.

Specific and well-structured interventions are necessary, and that's why it's important to ensure a continuity between primary care, emergency medicine, and psychiatry. Evidence shows that 2003 SARS (Severe Acute Respiratory Syndrome) survivors developed persistent psychiatric comorbidities after the infection, in addition to Chronic Fatigue Syndrome.

A proper stratification of patients according not only to psychosocial factors but also an inflammatory panel and SARS-Cov-2's direct effects on the central nervous system (CNS) and the immune system, may improve outcomes.

The complexity of COVID-19's pathology and the impact on the brain requires appropriate screening that has to go beyond the psychosocial impact, taking into account how stress and neuroinflammation affects the brain. This is a call for a clinical multidisciplinary approach to treat and prevent Sars-Cov-2 mental health sequelae.

Full detail: [Neurocovid-19: A clinical neuroscience-based approach to reduce SARS-CoV-2 related mental health sequelae](https://reader.elsevier.com/reader/sd/pii/S0022395620309195?token=7BA402EF5242F0FFEE7A0EE9D04BF86B108C22D4DA9B82EE5C0E24EBDA5FDD6948C4C9CC03459097C2415F1492016C4C)

**Title:** Why Severe COVID-19 Patients Are at Greater Risk of Developing Depression: A Molecular Perspective

Neuroscientist | November 2020

The prevailing evidence suggests that patients with severe COVID-19 seem to have an overreaction of the immune system demonstrating exacerbated levels of inflammation caused by a "cytokine storm."

At this early stage, the mechanisms underpinning COVID-19 are still subject to intense scrutiny and the long-term mental health consequences as a result of the disease are unknown.

This paper discusses the hypothesis that patients who survive severe COVID-19 and who experience significant activation of the immune system, are at greater risk of developing depression. We posit that a phenomenon known as cytokine storm dramatically activates the enzyme indoleamine 2,3-dioxygenase (IDO-1), resulting in the increase in kynurenine metabolites. Kynurenine is metabolized by IDO-1 in the brain, producing chemokines, in which a prolonged exposure may result long-term brain impairment.

This article also proposes the possibility that a SARS-CoV-2 neuroinvasion increases the local levels of angiotensin II by angiotensin-converting enzyme 2 down-regulation. Thereby, angiotensin II could increase kynurenine metabolites producing pro-oxidative and pro-inflammatory effects, resulting in impairment of cognitive function, enhanced oxidative stress and decreased brain-derived neurotrophic factor.

It is the author’s premise that patients who experience such a cytokine storm may be at increased risk of long-term mental illness, such as depression.

Full article: [Why severe Covid-19 patients are at greater risk of developing depression: a molecular perspective](https://journals.sagepub.com/doi/pdf/10.1177/1073858420967892)

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