

## Systematic review

# Risk of developing post-traumatic stress disorder high among post survivors of severe COVID-19 infections

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**Commentary on:** Nagarajan R, Krishnamoorthy Y, Basavarachar V, *et al.* Prevalence of post-traumatic stress disorder among survivors of severe COVID-19 infections: a systematic review and meta-analysis. *J Affect Disord.* 2022 Feb 15;299:52–59. doi: 10.1016/j.jad.2021.11.040. Epub 2021 Nov 17.

## Implications for practice and research

- ▶ There is a need to upskill healthcare professionals especially those without mental health training to better recognise and provide support to people with symptoms of post-traumatic stress disorder due to the pandemic.
- ▶ Future studies can explore the protective factors for survivors of severe COVID-19 infections.

## Context

The impact of the COVID-19 pandemic remains in most nations of the World. While the rate of infections is still high, the death rate has fallen in most countries.<sup>1</sup> Despite these positive signs, the lingering effects of COVID-19 remains. While the acute symptoms of the viral infections are being kept under control, the mental health implications continue to unfold. Nagarajan *et al* study sought to examine the prevalence of post-traumatic stress disorder (PTSD) among people who have had severe COVID-19 infections.<sup>2</sup>

## Methods

The study was a systematic review and meta-analysis. The studies included in their review were observational studies on the prevalence of PTSD among severe COVID-19 patients that were either cross-sectional, prospective or retrospective. The criteria used by the authors to identify people with severe COVID-19 infections included those that required intensive care unit admissions or mechanical ventilation, patients with high respiratory rate, low oxygen saturation and oxygenation index.<sup>2</sup> These patients must have been followed up at least 4 weeks post infection. STATA V.14.2 software was used to undertake meta-analysis. Random effect model as well as multivariable meta-regression analysis was carried out.

## Findings

The study revealed that regardless of the time point or the follow-up period in which data were collected, the prevalence of PTSD was similar. The review found out that globally 16% of patients with severe COVID-19 infections had PTSD. The highest prevalence rates were found in studies where the mode of patient interviews were online.

## Commentary

Nagarajan *et al*'s study is quite timely given the current global pandemic. It highlights the importance of providing integrated health that incorporates physical and mental healthcare. It was not stated whether some of the patients in the studies had any pre-existing mental health disorders, which could potentially impact on the findings. The review did not discriminate on the tool used to identify PTSD among the patients. While two of the tools used in the included studies (Trauma Screening Questionnaire-TSQ and Impact of Event Scale Revised-IES-R) have been shown to identify PTSD cases, they are also poor at identifying non-cases.

Recent studies have reported an increase in the symptoms of depression, anxiety and PTSD among the population since the start of the COVID-19 pandemic.<sup>3,4</sup> The conditional probability of developing PTSD following a traumatic event has been estimated to be 8.9% and the risk of developing further psychiatric comorbidities can be up to six times more likely to occur in individuals with PTSD.<sup>5,6</sup>

Given that the emergence of PTSD differs among people with some individuals experiencing delayed onset. It is important that healthcare systems recognise the significance of this when delivering care. There have been suggestions that adequate training, support from families and friends can act as protective factors against the development of PTSD.<sup>6</sup>

**Competing interests** None declared.

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