# Post-traumatic stress disorder following COVID-19 Pandemic; Review Article


## Abstract:

COVID-19 pandemic has an impact on the quality of life (QoL) of the young people by affecting their psychological stress and suspicion of diagnosis with PTSD. In response to this global health crisis, quarantine and lock down measures were implemented by international and government health organizations to contain the rapid spread of the virus. such a period of health crisis has significant repercussions on human health and welling, accompanied by psychological distress and related symptoms such as stress, panic and anxiety in the general population specifically students. Therefore, our study aimed to study association between COVID-19 pandemic and lock down with post-traumatic stress disorder.




## Introduction

Posttraumatic stress disorder (PTSD) is a syndrome that results from exposure to real or threatened death, serious injury, or sexual assault. Following the traumatic event, PTSD is common and is one of the serious health concerns that is associated with comorbidity, functional impairment, and increased mortality with suicidal ideations and attempts [1]. The prevalence of traumatic events in the lives of individuals ranges from 61% to 80%. After the trauma, posttraumatic stress disorder occurs in approximately 5% to 10% of the population [2].

The development of posttraumatic stress disorder in individuals is linked to a large number of factors. These include experiencing a traumatic event such as a severe threat or a physical injury, a near-death experience, combat-related trauma, sexual assault, interpersonal conflicts, child abuse, or after a medical illness. As unique form of disaster is pandemics which leads to psychological symptoms and nationwide reactions [3].

The novel coronavirus (SARS-CoV-2), which causes COVID, was initially identified in Wuhan, China, followed by drop load and contact transmission across many countries. It has altered

people's social life worldwide and added new isolation and quarantine measures to their lives. The loss of true human relationships and emergence in uncertainty is known to influence their mental health. This isolation affects stress and anxiety. The COVID-19 pandemic caused significant psychological consequences not only because of the fast spread of the disease [4].

Coronavirus infections (CoV) are emerging respiratory viruses known to cause disease ranging from the common cold to severe acute respiratory syndrome (SARS) [5]. On January 30, 2020, the World Health Organization (WHO) declared COVID-19 a public health emergency of international concern. The ongoing COVID-19 epidemic has spread very quickly, and by February 15, 2020, the virus had reached 26 countries altogether, resulting in 51,857 laboratory-confirmed infections and 1669 deaths [6]. The disease is highly infectious, and its main clinical symptoms include fever, dry cough, fatigue, myalgia, and dyspnea [7]. In severe cases, the virus causes fatal pneumonia similar to that caused by severe acute respiratory syndrome coronavirus (SARS-CoV), and Middle East respiratory syndrome coronavirus (MERS-CoV), which have emerged in the past 20 years in sporadic countries all over the world [8]. Global concerns about the virus have risen due to its high transmission capability, which may be coupled with morbidity and mortality [9].

Critical events include death, life threats, or an emergency or recovery crisis leading to stress-related reactions and the development of PTSD (The definition of a traumatic event is the COVID-19 infection, together with collective and personal threats and fears. Exposure to traumatic events such as these can lead to acute stress disorder and PTSD if symptoms continue. Major natural and pandemic disasters are usually linked to significant increases for HCWs in mental health disorders [10].

COVID-19 has been recognized in recent times as an emergency for public health, and so far, most publications focus only on infected patients' clinical features. However, this pandemic has also required people's emotional resilience, which can have a negative impact on their mental health in the loneliness of their homes [11].

The symptoms of PTSD include persistently re-experiencing the traumatic event, intrusive thoughts, nightmares, flashbacks, dissociation (detachment from oneself or reality), and intense negative emotional (sadness, guilt) and physiological reaction on being exposed to the traumatic reminder. Furthermore, problems with sleep and concentration, irritability, increased reactivity,

increased startle response, hypervigilance, avoidance of traumatic triggers also occur. There is a significant impairment in social, occupational, and other areas of functioning. However, the symptoms of PTSD overlap with acute stress disorder [12].

Patients with PTSD are at increased risk of experiencing poor physical health, including somatoform, cardiorespiratory, musculoskeletal, gastrointestinal, and immunological disorders. It is also associated with substantial psychiatric comorbidity, increased risk of suicide, and considerable economic burden [13].

In 1980, the initial diagnosis for the post-traumatic disorder (PTSD) was introduced. PTSD is a global disability and co-morbidity-related problem for many people. It is a disorder with people who have experienced or have experienced a shocking, terrifying, or dangerous event. However, most people spontaneously recover from initial symptoms, such as distressing recollections and flashbacks, prevention, and hypervigilance. PTSD diagnosis may be made for those who are not recovering spontaneously and still experience the symptoms. People with PTSD could feel fearful or stressful even if they are no longer in danger [14].

Trauma-focussed psychotherapy is considered as the first-line treatment effective in adults as well as children, and it includes trauma-focused CBT (cognitive-behavioral therapy), eye movement desensitization and reprocessing (EMDR), cognitive processing therapy, and imaginal exposure. Studies have shown that daytime PTSD symptoms improve even after a single session of CBT. The therapy has shown to shortens the course of those who will recover. However, it does not change the long-term [12, 14].

## Aim of the study:

This study will investigate the impact of the COVID-19 pandemic on the psychological stress, suspicion of diagnosis with PTSD, and insomnia-type stress disorder.

## Methods:

**Study Design:** Review article.

**Study duration Data were collected between 1 July and 30 October 2021.**

**Data collection** Medline and PubMed public database searches have been carried out for papers written all over the world on post-traumatic stress disorder followed by COVID-19 pandemic. The keyword search headings included “COVID-19, pandemic, stress, post-traumatic stress disorder, psychology, young adults", and a combination of these were used. For additional supporting data, the sources list of each research was searched.

Criteria of inclusion: the papers have been chosen based on the project importance, English language, and 20 years’ time limit. Criteria for exclusion: all other publications that did not have their main purpose in any of these areas or multiple studies and reviews were excluded.

**Statistical Analysis:**

No predictive analytics technology has been used. To evaluate the initial results and the methods of conducting the surgical procedure, the group members reviewed the data. The validity and minimization of error were double revised for each member's results.



## Literature review:

A cross-sectional study found a PTSD prevalence of 30.2% after acute COVID-19 infection, which is in line with findings in survivors of previous coronavirus illnesses [15] compared with findings reported after other types of collective traumatic events [16- 18]. Associated characteristics were female sex, which has been extensively described as a risk factor for PTSD, [17, 18] history of psychiatric disorders, and delirium or agitation during acute illness. In the PTSD group, we also found more persistent medical symptoms, often reported by patients after recovery from severe COVID-19 [19].

A study conducted by Liang et al. (2020) aimed to detect the association between PSTD and psychological stress among Chinese youths within the era of COVID-19. 12.8% of participants in this study were diagnosed with PTSD, which indicates that public health emergencies are important. In order to increase the mental health of youth, the government and other agencies must take swift and systemic action. This study has found that PTSD through negative coping cycles (NCS) can affect general mental health, which shows that gender moderates this

association. PTSD prevalence among women has significantly increased with psychological distress, but male PTSD is even more prevalent [20].

A review conducted by **Nania *et al. (2021)*** has investigated the effect of the COVID-19 pandemic could confirm that the mental health of university students is significantly affected, and they need careful attention and support from the community, families, and leaders of universities [21].

**Sultana *et al. (2021)*** have investigated the prevalence and predictors of PTSD in Bangladesh due to the COVID-19 pandemic. They suggested that the students need adequate psychological support. The factors that predicted higher effect were being female, with suspected COVID-19 symptoms, fear of infection and death by COVID-19, longer stay duration at home, and educational disturbances. The protective factors against depressive Symptoms and PTSS were physical exercise and recreational activities [22].

In Saudi Arabia, **Alshehri *et al. (2020)*** conducted an observational cross-sectional study to detect the prevalence of PTSD in various regions of Saudi Arabia. They found that the COVID-19 pandemic had significantly impacted the Saudi people and identified these several variables as risk factors, including gender, familial deaths, social stigma in COVID-19, survivors, and patients suspected of having survived, marital status, and psychiatric conditions [23]. **Ifthikar et al. (2020)** conducted an observational cross-sectional study to investigate Post-traumatic stress disorder following COVID-19 pandemic among university medical students in Riyadh, it was found that, 44% of the participants did not have PTSD, in 18.4% PTSD was a clinical concern and 8.6% had probable PTSD. Female participants had higher chance of having consequences than the male counterparts ($P < 0.001$). This means that, COVID-19 pandemic has not just affected the physiological functioning of the affected individuals but also has had a probable post-traumatic stress disorder among young college students [24].

**Meo *et al. (2020)*** aimed to study the effect of COVID-19 quarantine on medical students in Saudi Arabia. They found that males and females have identified quarantine as an emotional separation between their family, friends, and colleagues, decreasing their overall work performance and study period. Furthermore, the results show that a fourth of the medical students who took part in this study felt depressed over two weeks of quarantine. Long-term

quarantine due to COVID-19 pandemics can lead to additional deterioration of these medical students' psychological and learning behaviors [25].

Also, **Wathelet *et al. (2021)*** aimed to study the rate of PTSD and its associated factors among university students in Saudi Arabia. One month after the quarantine ended in the COVID-19 pandemic, they noted a high prevalence of likely PTSD among French university students. Most importantly, these results indicate that the context of the pandemic and lockdown actions in this population might be 'traumatic' and stimulate debate about PTSD nosography [26].

## Discussion:

Once people develop PTSD, the recurrent unbidden reliving of the trauma in visual images, emotional states, or nightmares produces a constant reexposure to the terror of the trauma. In contrast to the actual trauma, which had a beginning, middle, and end, the symptoms of PTSD take on a timeless character. The traumatic intrusions themselves are horrifying: they interfere with dealing with the past, while distracting from being able to attend to the present. This unpredictable exposure to unbidden memories of the trauma usually leads to a variety of (usually maladaptive) avoidance maneuvers, ranging from avoidance of people or actions that remind them of the trauma, to drug and alcohol abuse, to emotional withdrawal from friends or activities that used to be potential sources of solace [14].

Problems with attention and concentration keep them from being engaged with their surroundings with zest and energy Uncomplicated activities like reading, conversing, and watching television require extra effort. This loss of ability to focus, in turn, often leads to problems with taking one thing at a time and gets in the way of organizing one's life to get it back on track [14].

Furthermore, corona positive patients are now considered a stigma. Internet and social media consumption are fueling safety seeking and hoarding behaviors and affective temperament traits are being recognized in response to the outbreaks [27].

## Conclusion:

The enduring COVID-19 pandemic may leave us all in a state of confusion long after the pandemic has ended. Addressing the issues that arise along the way can help to reduce risks for our communities one at a time. Coping with stress in a healthy way will strengthen the community, allow us to combat similar pandemics in the future, and allow us to provide coping mechanisms for people who are socially isolated, help address overwhelming media consumption, and improve adherence to guidelines without the associated stress right now. However, better understanding about this issue will help appropriate authorities in designing and implementing adequate interventions to address psychological aspects among the university students and the population during a pandemic even if they are not tested positive.

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