

Re-experiencing symptoms discovered from Covid-19 Pandemic that led to Trauma among Individuals in North Eastern States of India

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Abstract: Trauma being a psychological response to deep anguish and disturbing occurrence leads to significant impact on mental health. Trauma has been increasing in recent times. It is also followed by physical symptoms along with causing agony and pain. 34 Covid infected individuals were detected with very severe and severe symptoms of PTSD on the 2 scales of PTSD Post-traumatic Stress Diagnostic Scale - Self Report Version for DSM-5 (PDS-5) (Edna B. Foa (2013) and Post-traumatic Stress Disorder Symptom Scale – Interview for DSM-5 (PSS-I-5). 17 participants were selected for investigation showing very severe and 17 severe symptoms of PTSD on both the scales. The present research study focussed on Re-experiencing symptoms among very severe and severe participants who were detected with PTSD. Results showed there exist re-experiencing symptoms in both the groups and significant difference in re-experiencing symptoms exist in both very severe and severe participants. Unwanted memories, nightmares, re-living covid19 symptoms, emotional disturbances, physical symptoms were discovered among very severe and severe covid19 infected individuals still remains.

Keywords: trauma, re-experiencing, severe, covid19, symptoms, very severe.

INTRODUCTION

In 1980 Post Traumatic Stress Disorder (PTSD) became a mental health diagnosis which was codified by the American Psychiatric Association (APA) (APA, 1980) and also got its recognition and documented in the 19th century. During the civil war many catastrophic events took place where many soldiers had lost their lives and also most of them suffered from nostalgia, where they reported of missing homes, feeling low, sleep issues (Birmes et. al., 2003). Moreover, during Vietnam War where many veterans suffered from Chronic mental health issues and it was the National Vietnam Veterans Readjustment Survey (NVVRS), who studied the issues. Therefore, it resulted in greater recognition of PTSD as a mental health disorder (National Academies Press, 2012).

COVID-19 as pandemic, first case was reported in China in 2019. With the spread of the disease caused havoc all over the world and disturbed the overall equilibrium of the people, including North East India. There were devastations including death of people, financial loss, disturbance of inter-personal relationships and there were some incidents where people were

not allowed to visit relatives to follow the last rituals of the funeral. Therefore, all these together caused trauma in the individuals leading to Post-traumatic Stress Disorder.

According to DSM-5 (2013), "PTSD is a mental disorder that can develop after the exposure to a traumatic event. It is characterized by a combination of symptoms that are divided into four categories: Re-experience, recurrent disturbing thoughts as a flashback, Avoidance, avoiding the reminders of the traumatic events, Changes in cognition and mood, negative thoughts and alteration of mood, Increased arousal and reactivity, hypervigilance and alert.

Re-experiencing being one of the core symptoms of PTSD, it involves flashback, as if relieving the moment again, which is also involuntary. Nightmare, in the form of recurring memories of the traumatic events which makes it difficult for the people to focus in their daily rituals. Through re-experiencing symptoms there can be intentional recall of the trauma incidents which can be often characterized by confusion in the temporal order and problem in finding the important details (Ehlers, A., et al., 2004).

Ancelin, Marie-Laure, et al., 2020, worked on structural brain changes after trauma, it was discovered that with any life time trauma were connected with superior parietal region and larger amygdala in traumatized women.

Timely detection of re-experiencing symptoms is essential as it is highly treatable.

METHODOLOGY

Research question:

1. Do re-experiencing symptoms exist among very severe and severe Covid-19 survivors of North Eastern states of India?
2. What are the types, patterns and characteristics of re-experiencing symptoms observed among COVID-19 survivors of North Eastern states of India?

Objectives:

1. To assess whether re-experiencing symptoms of PTSD exist in COVID-19 survivors.
2. To discover out the different types, patterns and characteristics of re-experiencing symptoms.

Sample:

A total sample of 34 equal representatives from both very severe and severe. Therefore, 17 very severe and 17 severe within the age group of 30-60 years.

Sampling: Purposive Sampling

Tools Adopted:

- Self- developed demographic information schedule to know participant's essential social environment.
- Post-traumatic Stress Diagnostic Scale - Self Report Version for DSM-5 (PDS-5): It is a self-report inventory. It was developed by Edna B. Foa (2013).
- Post-traumatic Stress Disorder Symptom Scale – Interview for DSM-5 (PSS-I-5)

Inclusion Criteria:

- COVID-19 survivors from North East, India detected with PTSD.

- Very severe and severe survivors detected PTSD who are proficient in English
- Very severe and severe survivors with PTSD symptoms who did not have earlier record of severe physical and psychological illness

Exclusion Criteria:

- Covid-19 survivors detected with severe and severe very PTSD who were frontline worker.
- Gender other than male and female with PTSD very severe and severe symptoms among COVID-19 survivors.
- PTSD COVID-19 survivors who had moderate, mild and minimal symptom.

RESULTS

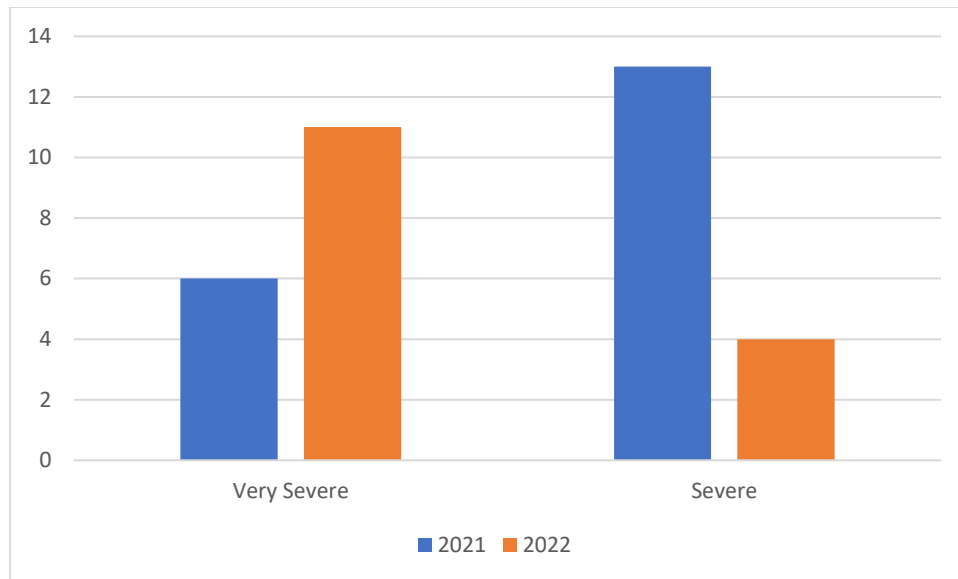
To explore symptoms of re-experiencing among very severe, severe symptoms in PTSD detected among covid19 survivors from north eastern India the following measures were taken.

- 17 very severe COVID-19 survivors and 17 severe COVID-19 survivors detected with PTSD were studied to explore their symptoms related to re-experience of the COVID-19 trauma these individuals were reliving after 2years of the pandemic.
- Socio-demographic data were collected to gain insight about the social environment of the individuals.
- T test was applied to find out the significant difference between the Severity level.
- MANOVA test was applied among 5 items detected to see which item has the highest weightage.
- The data is presented in graphic representation and tabular form on each category of variables of the study.

Socio Demographic Data:

1. Year of testing COVID-19 positive among Very Severe and Severe

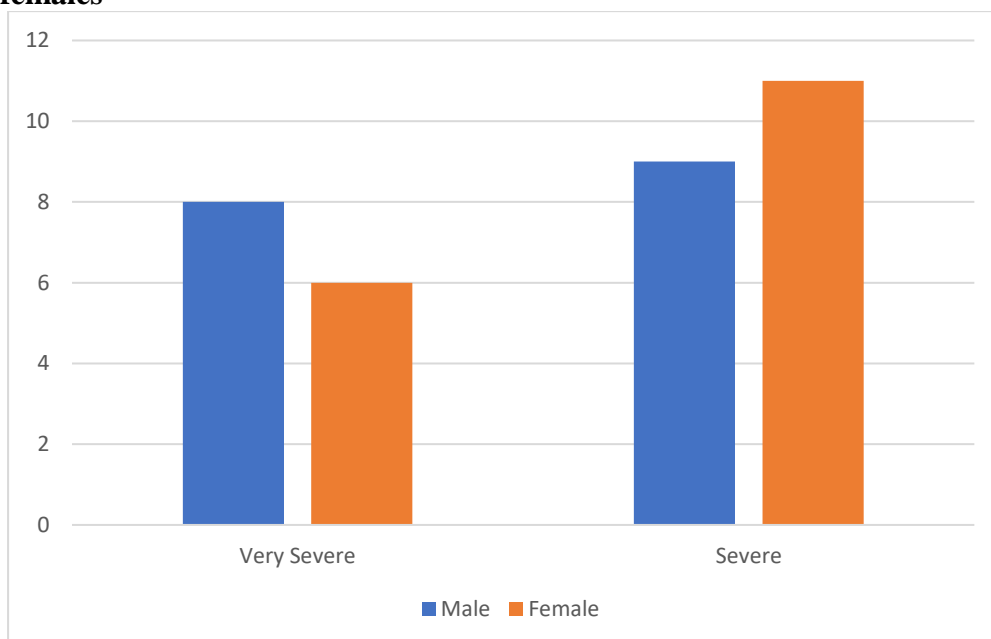
Figure 1- Graphical Representation of COVID-19 positive among Very Severe and Severe during 2021-2022.



The COVID-19 in 2022 was caused by Omicron Variant (Andrews, N., et. al., 2022), while it was called as the Delta Variant (Microbiology Spectrum Journal, WHO) in 2021. Therefore, most of the severe symptoms were infected by delta variant in 2021 and very severe symptoms were infected by omicron (in 2022, interestingly the symptoms of COVID-19 was higher showing very severe symptoms in delta variant while in the present research delta COVID-19 survivors showed severe symptoms of PTSD and omicron showed very severe symptoms of PTSD which was a milder version of COVID-19).

2. COVID-19 positive among males and females in Very Severe and Severe

Figure 2- Graphical Representation of Very Severe and Severe among males and females

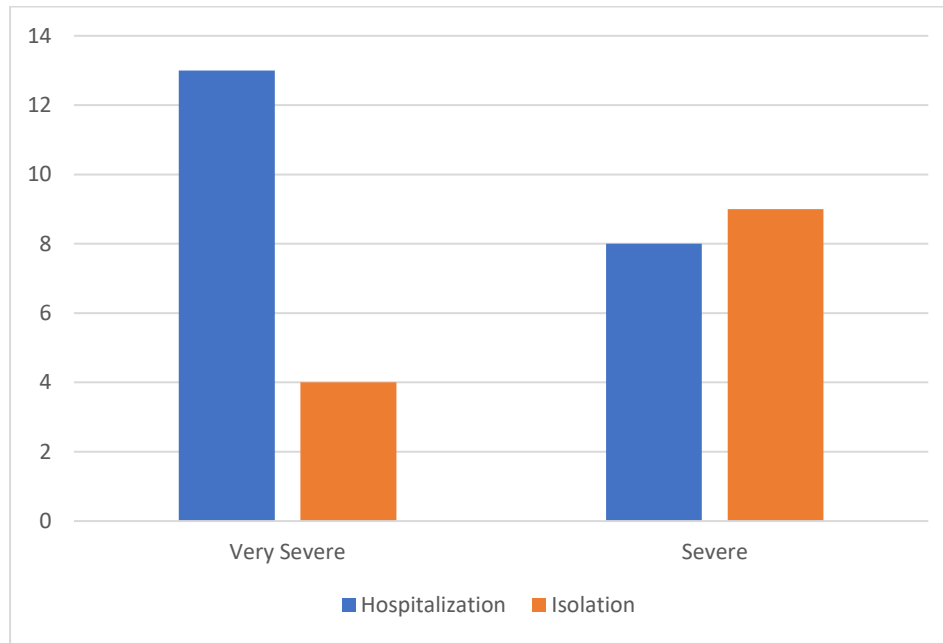


The above representation shows that in very severe males were most affected and in severe females were most affected. Overall, the affected rate is higher among severe

both in males and females in comparison to very severe in both the gender. Therefore, overall male had suffered from higher re-experiencing symptoms in very severe category showing male in north eastern India were affected on mental health.

3. Hospitalization/ Home Isolation among Very Severe and Severe

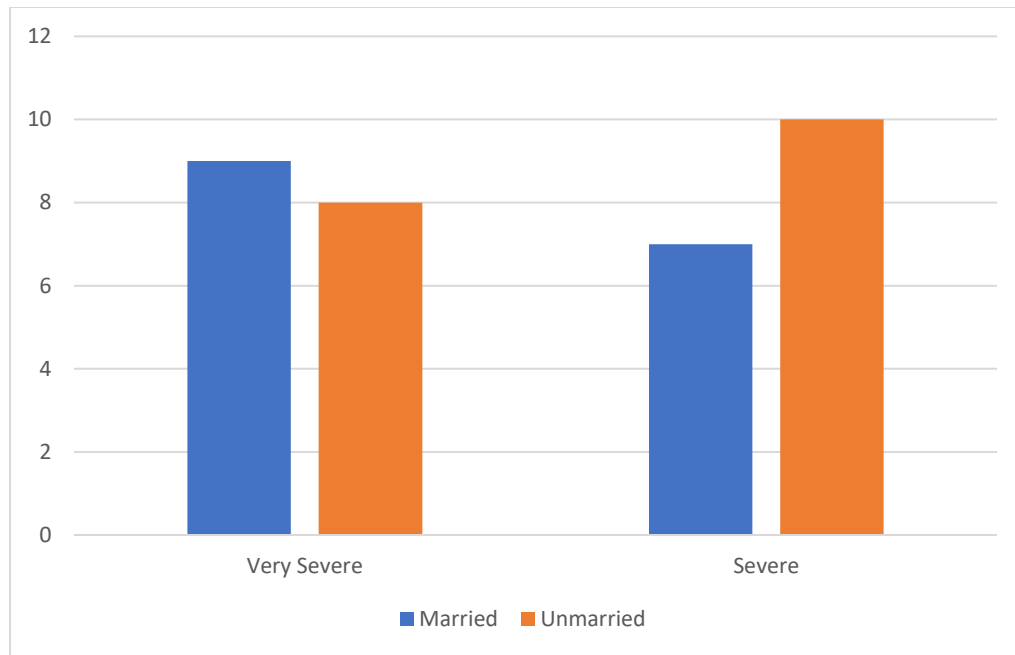
Figure 3- Graphical Representation of hospitalization/ Home Isolation status among Very Severe and Severe



Hospitalization rate is high in very severe, considering they have higher traumatic issues and the home isolation is high on severe. This reveals that those individuals hospitalized had interaction with other COVID-19 infected individuals. Interaction and the fact that the individuals required hospitalization could be a cause of severe trauma. The re-experiencing symptoms were higher as the hospitalized individuals were constantly seeing illness, deaths, and very severe symptoms in others also along with themselves causing cognitive information overload on COVID-19 distress being observed.

4. Married and unmarried status among Very Severe and Severe

Figure 4- Graphical representation of married and unmarried status among Very Severe and Severe



Unmarried survivors are high on severe symptoms and married survivors are high on very severe. Those married had more family responsibilities, and under constant fear of losing their spouse and were thereby more affected than the unmarried. This indicates a relationship between responsibility and severity. Fear had enhanced mental health symptoms among those who had family responsibilities to deal with as compared to unmarried who did not have much family responsibilities.

To assess the levels of PTSD such as Very Severe and Severe on the re-experiencing symptom, PDS-5 and PSS-I-5 scale was used. Kruskal-Wallis test was computed to check the significant differences.

Table 1 Mean, SD and T test scores obtained in Re-experiencing symptoms

Levels	n	Mean	SD	P Value	Critical Value
PDS-5					
Very Severe	17	16.588	2.702	6.17E-06	2.449
Severe	17	11.882	2.447		
PSSI-5					
Very Severe	17	16.588	2.702	6.17E-06	2.449
Severe	17	11.882	2.447		

**Significant level is at P<0.05*

The statistical calculations shown above indicated that re-experiencing symptoms implies unwanted and upsetting memories about COVID-19. The participants did show re-experiencing symptoms like bad dreams and nightmares related to the incidence during the time of the COVID-19 pandemic, relieving the negative events during COVID-19 pandemic and the feelings as if it had actually happened again, feeling emotionally very upset when reminded of the COVID-19 events, having physical reactions like sweating, heart racing when reminded of the COVID-19 days.

The finding suggested that there exist significant differences among the severity levels of Psychological trauma in COVID-19 survivors. Very severe symptoms showed significantly higher symptoms which is similar as other PTSD symptoms in relation to other traumatic events.

Table 2: MANOVA statistics for Very Severe COVID-19 survivors in Re-experiencing Symptoms

Dependent Variables	Mean	SD	Significance	Critical Value
Unwanted upsetting memories	2.706	1.359	0.000	1.96
Bad dreams or nightmares	2.647	1.366		
Reliving the trauma	3.588	0.939		
Feeling very Emotionally upset	3.177	1.185		
Having Physical reactions when reminded of the trauma	2.941	1.391		

The above table shows significant difference among the five items on Very Severe COVID-19 survivors in Re-experiencing Symptoms. The result shows that reliving the trauma is highly affected followed by feeling emotionally upset, having physical reactions when reminded of the trauma, unwanted upsetting memories and lastly bad dreams or nightmares.

Table 3: MANOVA statistics for severe COVID-19 survivors in Re-experiencing Symptoms

Dependent Variables	Mean	SD	Significance	Critical Value
Unwanted upsetting memories	1.824	0.728	0.000	1.96
Bad dreams or nightmares	1.647	0.862		
Reliving the trauma	2.059	0.966		
Feeling Emotionally upset	2.059	0.899		
Having Physical reactions when	2.118	1.054		

reminded of the trauma				
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The above table shows significant difference among the five items on Severe COVID-19 survivors in Re-experiencing Symptoms. The result shows that reliving the trauma and feeling emotionally upset are highly affected followed by having physical reactions when reminded of the trauma, unwanted upsetting memories and lastly bad dreams or nightmares.

Discussion

Re-experience in very Severe:

Most of the survivors were living with upsetting intrusive thoughts and memories that were disturbing memories about loss of taste, smell, nausea, headache, congestion, shortness of breath, fatigue, muscle body aches and more. These memories were painful experiences and would reoccur and has very severe impact that was felt by the participants. It came without any sign and they were absolutely unwanted. This had disrupted their daily functioning, overall making it difficult to concentrate. Some very severe participants tried to suppress those memories, but it often resurfaces unexpectedly. These memories led to disturbances among all very severe participants who reported that they felt that COVID-19 had made their life meaningless and they were not able to fulfil their purpose of living with these upsetting memories.

Nightmares in severe level were common, it included themes or scenes from the days of COVID-19 when they were suffering from the infection. Those nightmares were vivid and caused one to wake up in a state of panic, fear and confusion. They woke up coughing, with nausea and vomiting tendency, difficulty in breathing, dizzy, and it would happen frequently causing disturbance in sleep pattern, which resulted in chronic insomnia or an ongoing fear of falling asleep. It had exacerbated other PTSD symptoms too, including irritability, difficulty concentration and emotional instability. They reported hopelessness and were unaware if at they would be able to move on with their future living.

Re-experiencing symptoms detected among very severe also felt as if they were reliving the traumatic event. The flashbacks were vivid and overwhelming, caused one who lost touch with their surroundings and felt as though COVID-19 is occurring again. They felt fevers or chills, cough, loss of taste smell, congestion and runny nose, nausea or vomiting, diarrheic when it did not actually happen at all. Flashback caused intense emotion like anger, helpless. They had feeling of guilt, anxiety and fear that the covid19 symptoms had occurred again and would also occur again.

Experienced triggers in the form of specific sounds, places, internal thoughts or feelings that reminded of their COVID-19 days. They could hear sounds telling them to stay isolated, heard voices of being rejected, has auditory hallucination of dangers of future health issues and more, felt sleeping in hospital beds while sleeping at home, sitting with family but feels as though sitting in isolation in a closed room also feels like being in a cage when being at own home. These, feelings triggered their emotions leading to intense negative emotions.

Physically, the survivors experienced overwhelming fear, anger, which made it harder to function with day to day activities. Flashbacks, of exact feeling causing absolute despair and agony. When they heard of COVID-19 or any signs and

symptoms it created trembling of body, rapid breath, pain, irritability which have become a part of their daily life which is a serious concern.

Re-experience in Severe:

Upsetting memories is related to unwanted distressing memories about the being alone, most of the COVID-19 survivors often have intrusive thoughts and the memories about their infection and it had disturbed them without any warning. Over all, the memories and intrusive thoughts related to events disrupted their whole life schedules. These memories were mainly on fever, uneasiness, shortness of breath, fatigue, loss of taste, smell, body ache, and more. Thus, making life for them difficult to concentrate or engage in daily activities. These memories had also led to disruption for positive living. As, significant difference exists between very severe and severe group the symptoms revealed by the severe group was lower than the very severe group who felt very miserable.

Severe group did have bad dreams or nightmares related to the traumatic incidents; Survivors had nightmares related to the themes from their deaths in family, not seeing their loved ones for long, economic hardships, social disconnection. And the nightmares were mostly vivid and as a consequence one wakes up in panic state and some in a confusion state feeling hopeless, stigmatised. These, feelings would suddenly occur in the middle of the night followed by irritability fatigue, dizziness leading to difficulty in concentration and emotional instability.

When, the experience of feeling as if COVID-19 events were actually happening again as the survivors experienced flashbacks where they mentioned that they were living the moments of the infection again. The images of the flashbacks were vivid, overall caused the person to lose touch with their current environment and feel though as if it were occurring again. This brought in anger and agony but the symptoms were lower than the very severe group even though it had made their lives devastating. Physical reactions when reminded of the any symptom of COVID-19 such as lose of smell taste etc, most of the survivors reported of physical symptoms that included fast heartbeat, dizziness, sweating as the body reacts as though the COVID-19 still exist and is still happening in and around them causing inability to function normally.

Being emotionally upset when reminded of the trauma, severe survivors reported that when they encounter remainders of the COVID-19 incidents it works as a trigger such as any sight of the incident, sound of the accident or even the simple thoughts that could be related. Overall, those triggers caused extreme distress, leading to panic attacks or unmanageable emotional outbursts.

Korbut, S., et.al., 2022, Turkey studied individuals who had experienced pain due to COVID-19 infection, many participants reported that their pain did not disappear despite use of many techniques and about two-thirds were afraid of re-experiencing the pain again. Harenwall, S., et. al., 2022, UK studied the associated effects of Post traumatic Stress Symptoms and Breathlessness on Fatigue Severity in Post-COVID-19 Syndrome, therefore it was found that it is important to take up biopsychosocial approach towards recovery and also it is important to screen for PTSD to maximize for successful rehabilitation. Therefore, the above mentioned studies support findings of the present research from North eastern India.

CONCLUSION:

The above discussion clearly denotes discovery of re-experiencing symptoms in form of very severe and severe among COVID-19 infected individuals irrespective of gender among young adults. In very severe individuals reliving the negative COVID-19 experience was most disturbing. Thus, affecting the amygdala and prefrontal cortex causing fear and negative emotions, hippocampus causing disturbing memory retrieval. Among the severe reliving the trauma and emotional disturbances had highest impact. Besides, all the symptoms were present in both the groups in COVID-19 as if the event were happening again, as if COVID-19 has reoccurred had significantly affected individuals from North Eastern States of India.

Intervention is essential to overcome the re-experiencing symptoms. Combination of Psychological interventions such as Cognitive Behavioural Therapy, Prolonged Exposure and relaxation therapy and variety of medication such as Antidepressant in the form of Selective Serotonin Reuptake inhibitors, Mood Stabilizers can be beneficial.

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