MEDVIX PUBLICATIONS

Journal of Medical and Clinical Case Reports
Research Article | Open Access | ISSN 2997-6022 | Volume 02 | Issue 02

Post-Traumatic Stress Disorder In Adults Diagnosed With COVID-19

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Received date: 21 May 2025; **Accepted date:** 04 June 2025; **Published date:** 07 June 2025

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Citation: Lidivet Martínez Calderón, Berkis Martínez Hernández, Betsy Bonachea Sánchez, Ederlys Martín García, Yarielys González Cabrera, Juan Carlos Mirabal Requena. Post-Traumatic Stress Disorder In Adults Diagnosed With COVID-19. Journal of Medical and Clinical Case Reports 2(2). https://doi.org/10.61615/JMCCR/2025/JUNE027140607

Abstract

Introduction

The pandemic generated by COVID-19 is a new phenomenon. In most patients, there is a high probability of negative effects occurring in their psycho-emotional reactions, including Post-Traumatic Stress Disorder (PTSD). The Sancti Spiritus municipality had a significant number of positive patients, in whom the presence of psychological sequelae was noted.

Objective

Describe the behavior of Post-Traumatic Stress Disorder in adult patients diagnosed with COVID-19 in the central area of the Sancti Spíritus municipality in the defined months to be studied.

Methods

Descriptive, longitudinal, and prospective research. We worked with 77 patients who became ill between July and December 2021 and met the exclusion and inclusion criteria. Sociodemographic variables, Post-Traumatic Stress Disorder symptoms, dysfunction in daily life, and treatment received were used. Data collection was obtained through interviews and the application of a research instrument.

Results

Of the 77 patients, 28 turned out to have Post-Traumatic Stress Disorder.

Conclusions

The presence of Post-Traumatic Stress Disorder described in the study coincides with other international research.

Keywords: COVID-19; adults; post-traumatic stress disorder; behavior.

Introduction

COVID-19 disease is a new nosological entity of an infectious nature, which can present serious clinical manifestations, even leading to death. **[1,2]** It is present in 190 countries and has become a threat to global health, becoming the largest outbreak of atypical pneumonia since the appearance of severe acute respiratory syndrome (SARS) in 2003. **[3]**

According to data published by the World Health Organization (WHO), as of November 10, 2024, more than 776 million confirmed cases of COVID-19 and more than 7 million deaths had been reported in 234 different countries. **[4,5]** This disease can occur asymptomatically, with less serious characteristics, or in its severe form. It is common for people who have suffered from it to be left with multiple consequences, among which it is necessary to highlight those that affect people's mental health. **[6]**

In most patients, there is a high probability of late effects in their psycho-emotional reactions. These can be caused by the effects of the disease itself,

by the long stages or loneliness of confinement, and in many cases by the death of family members to whom they cannot say goodbye. **[7]**

In this way, it is not uncommon for pathological grief, depression, adjustment disorders, manifestations of post-traumatic stress, abuse of alcohol or other addictive substances, and psychosomatic disorders to appear. Patterns of prolonged suffering can also be translated as sadness, generalized fear, and anxiety. **[7]**

When it is necessary to maintain health actions such as quarantine and isolation, the evaluation of the psychological impact must be based on an exhaustive review of the possible risk and vulnerability factors that may perpetuate the problem. It is necessary to take into account the patient's previous mental health status, the history of grief, the presence of a history of self-harm or suicidal behavior in both the patient and his or her family, the history of previous traumas, and the patient's socioeconomic context. **[8]**

Many of the recovered COVID-19 patients suffered, some still suffer, from stress for several weeks as well as other psychophysical symptoms, including depression, fear, and anxiety; these may persist for longer. Recovery time depends on a person's age and pre-existing conditions before the onset of infection. **[9]**

In themselves, people who are socially isolated, with restricted mobility and poor contact with others, are vulnerable to presenting psychiatric complications that range from isolated symptoms to the development of a mental disorder, such as insomnia, anxiety, depression, and post-traumatic stress disorder (PTSD). **[10, 11]** Post-traumatic stress disorder arises as a delayed or delayed response to a stressful event or situation (short or long-term) of an exceptionally threatening or catastrophic nature, which would likely cause widespread distress in almost anyone. **[12]**

The onset of the disorder follows the occurrence of the trauma, with a latency period that can last from a few weeks to a few months; its evolution is fluctuating, even though in most cases recovery can be expected. In a small proportion of cases, the condition may have a chronic course lasting several years, with an eventual lasting change in personality. **[13]** After several studies, a prevalence of PTSD has been found in 20-40% of patients who have been diagnosed with COVID-19 throughout their recovery process, whether immediate, intermediate, or late. **[11,14]**

In the province of Sancti Spiritus, a large number of patients positive for COVID-19 occurred during the stage of the pandemic, becoming one of the provinces that reported the most cases in 2021. **[15]** Of the survivors, not a few were identified with sequelae compatible with PTSD. Given this situation, the authors set the objective of this research to describe the behavior of PTSD in adult patients diagnosed with COVID-19 in the central area of the Sancti Spíritus municipality in the months between July and December 2021.

Method

A descriptive, longitudinal, and prospective study was carried out. In the present study, all adult patients who survived COVID-19 in the central area of the Sancti Spíritus municipality were included in the period from July to December 2021. It was considered as another element to be included, that at the time of conducting the interview and applying the survey, they had suffered from COVID-19 between 3 and 6 months.

Those people who were part of another similar study or who did not agree to participate in the one that would be carried out were excluded. Patients whose mental status was unreliable in obtaining the necessary data were also excluded.

In the polyclinic of the Central Area of the Sancti Spíritus municipality, 121 COVID-19 positive patients who survived the disease were diagnosed between July and December 2021. Once the inclusion and exclusion criteria were applied, it was decided to work with a population of 77 patients who met the characteristics established for the study.

To obtain the information, the following research instruments were used:

- Ad hoc interview focused on data related to the traumatic event and the dysfunction that said event has produced in the person's daily life, which allowed a categorical diagnosis of PTSD to be carried out.
- Post-Traumatic Stress Disorder Symptom Severity Scale (EGS-R). **[16]**

Sociodemographic variables were used to characterize the study population (age, sex, profession, marital status, employment situation), the symptomatic cores were taken into account for the diagnosis of PTSD according to EGS-TE (increased activation and psychophysiological reactivity, cognitive alterations and negative mood, cognitive behavioral avoidance, re-experiencing). The presence of PTSD was defined as yes or not present.

Other variables that were evaluated were the treatment received (pharmacological, psychological, psychopharmacological, none) and the areas affected by the traumatic event (deterioration of the couple relationship, deterioration of the family relationship, negative interference in work/academic life, negative interference in social life, negative interference in leisure time, global dysfunctionality). The data obtained were entered into number and percentage tables that were used for the final analysis of the results.

All participants in this research underwent a general interview to promote communication and access to information. The EGS-R was applied individually to them on the given day, with no time limits for responding, until the items were completed. Informed consent for participation in the study was obtained from each subject, explaining the voluntariness of their contribution and its importance for the development of the research. The possibility of abandoning the study at any time was explicit; all information obtained was used only for scientific purposes.

Results And Discussion

The studied population was characterized taking into account sociodemographic variables. **Table 1** shows the predominance of each one.

Table 1: Characterization Of Patients With COVID-19, Taking into Account Predominant Sociodemographic Variables. Center Polyclinic. Santi Spiritus. July–December 2021

Variables	Predominant Scale	Nº	%
Age	40-59	40	52

Sex	Female	56	72
Profession	Professional	21	27
Marital Status	Married	27	35
Employment Situation	Bound	46	60
Total		77	100

A greater number of patients were found between 40-59 years old, with the female sex predominating, with 72% of the patients surveyed, of which the majority were professionals. Regarding marital status, it was noted that the number of married patients was greater, with 27, and the employment status most evident belongs to those linked to work, representing 60% of the total.

In a study carried out in Italy by Forte et al. **[14]**, the authors of the present research found coincidences regarding the predominance of the female sex, with 74%, and of professionals. There were differences in the age variable because in the aforementioned study, those between 18 and 29 years old predominated.

Another consulted investigation carried out in the city of Madrid, Spain, presented results with which it was agreed in terms of the predominance of the female sex, the largest number were professionals, and the ages between 40 and 50 years predominated, which is very close to the one found in the current one. **[17]** In work carried out by Reyes et.at, **[18]**, the predominant characteristics were women, degree of higher education, and the age range between 18-70 years, the latter being a little wider in relation to that carried out in Sancti Spíritus, with which this study coincides.

When the results achieved are analyzed, both in the research presented and in the previous ones carried out by other authors already mentioned, there is a predominance of the female sex, adults up to 60 years of age and those who have a profession and were actively working at the time of the research, these being the most repeated variables and to which greater weight has been given in general. In the authors' opinion, this manifested itself in this way, due to the educational level achieved by the population, where women are more dedicated to household chores, despite their professionalism, which is why most of them were in isolation for longer than men during the pandemic period.

The family nuclei that were symptomatic were analyzed for the diagnosis of PTSD according to the results obtained after applying the EGS-TE. These results are explained in **Table 2**.

Table 2: Symptomatic Nuclei for the Diagnosis of PTSD According to EGS-TE

Scale	# of Items	Range	Presence of the Symptom			
			YES	%	NO	%
Reexperiencing	5	0-15	14	18	63	82
Cognitive behavioral avoidance	3	0-9	12	16	65	84
Cognitive alterations and negative mood	7	0-21	18	23	59	77
Increased psychophysiological activation and reactivity	6	0-18	11	14	66	86

Source: Symptom Severity Scale

The results of the analysis of this variable show that the majority did not present symptomatic cores that framed them as having PTSD. Those who did present these nuclei, cognitive alterations, and negative mood occupied first place, with 18 subjects reporting their appearance.

In the previously referenced study **[17]**, results were found that do not coincide with those carried out by these authors, taking into account the psychometric study with the EGS-TE in patients who had experienced traumatic experiences of different kinds. In China, Cai

It is not common to find research that specifically evaluates which symptomatic core(s) are most affected in patients, since most research is limited to identifying them for the sole purpose of diagnosing PTSD without delving deeper into them. In the opinion of the authors of this research, it was considered necessary to take these factors into account because, in addition to the diagnosis of psychiatric pathology, the predominance of the nuclei guides the psychological state of the patients, finding greater specificity when describing the symptoms found in them.

The presence or not of PTSD in the subjects studied was another of the variables that was described. The results are shown in **Table 3**.

Table.3: Presence of Post-Traumatic Stress Disorder (PTSD)

Variable	Scale	Nº	%
Presence of PTSD	YES	28	36
	NO	49	64
Total		77	100

Source: Symptom Severity Scale

The data presented show the presence of PTSD in 28 patients, for 36% of the total participants in the study. These results agree with the research carried out in Nepal, where in the studied population of COVID-19 convalescents, 32% were diagnosed with PTSD. **[20]** Another study with which this coincides was carried out in China **[21],** where it was found that of the population studied, after 3 months of being infected with the virus, 41% developed PTSD.

According to the review published in the journal The Lancet (20), during the following months after the acute phase of the infection is over, the neurological and mental health consequences continue to be very prevalent. According to a cross-sectional study, carried out during August to November 2021 in Peru, which included adults of both sexes with a time after COVID-19 diagnosis of 3 months to 6 months, 21.4% presented PTSD symptoms. **[22]** The authors agree, after analyzing the results of the research carried out and reviewing the evidence demonstrated in other studies consulted, that the average number of people diagnosed with PTSD is between 20% and 40% of patients who suffered from COVID-19.

In situations that can develop PTSD, those affected sometimes need some type of treatment. **Table 4** shows how these needs behaved in those studied.

Table. 4: Need for Post-Traumatic Treatment

Variable	Scale	Nº	%
Treatment Received	Pharmacological	4	14
	Psychological	3	11
	Psychopharmacological	7	25
	None	14	50
Total Patients with PTSD		28	100

Source: Individual Interview and Symptom Severity Scale

Of the participants with PTSD, 14 reported that they needed some therapeutic modality after their exposure to the traumatic event; the rest denied having received any treatment. It is pertinent to note that the information provided by those studied may have been conditioned by some kind of fear of a new stage of isolation or social rejection due to stigma towards patients with psychological or mental disorders.

In a cross-sectional study carried out in 34 hospitals caring for patients with COVID-19 in China **[23]** 50.4% of patients with post-COVID-19 PTSD had accessed psychopharmacological resources, and of them, 17.5% had participated only in counseling or psychotherapy, which is consistent with the findings of the present study. Schiller et al., **[24]** propose that psychotherapy is recommended as the first line of treatment, including cognitive-behavioral, supportive, non-directive counseling and interpersonal therapy, considering that pharmacological treatments for PTSD (notably the use of SSRI antidepressants and benzodiazepines) have not conclusively shown equivalent or superior effectiveness to the different types of psychotherapies used.

According to the experience of the authors of this study, the use of psychotherapy is one of the most effective ways in cases of PTSD. It should also be noted that pharmacological treatment is necessary in some patients. Still, the combined use of both modalities is recommended, always taking into account the individualization of the treatment according to the characteristics of each individual.

Patients affected with PTSD were evaluated according to the areas affected in each of them. The results can be seen in **Table 5.**

Table 5: Areas Affected by the Traumatic Event

Variables	Scale	Nº	%
Areas affected by the traumatic event	Deterioration of the couple's relationship	9	32
	Deterioration of family relationships	11	39
	Negative interference in work/academic life	16	57
	Negative interference in social life	21	75
	Negative interference in leisure time	23	82
	Global Dysfunction	4	14
Total Patients with PTSD		28	100

Source: Individual Interview and Symptom Severity Scale

When the scale was applied, the most affected area of life was negative interference in leisure time, with 82%. Negative interference in social life, with 75%, was another area with high representation. In the study carried out in Spain,**[17]** respondents identified the work and school area as the greatest impact for 47%, followed by interference in interpersonal relationships in general, with 23%, with which there is partial agreement.

A study during 2021 with 157 students from the health and education faculties of two universities in the city of Talca, Chile, **[25]** evaluated the dimensions of quality of life most affected post-pandemic and those that changed the most were the emotional role and social function, data with which is consistent with what was found in the current study. The symptoms that have been most evident are constantly thinking about the traumatic event, waves of strong feelings, trying not to think about the event, exaggerated startle response, remembering things about the event, avoiding talking about it, hyperactivity, avoidance, and intrusive images.[**26]**

It was important to identify the spheres of life most affected in the patients studied, since this directly affects the fact that a sequel such as PTSD is diagnosed. This also provides the possibility that it can be related to the history of having suffered from COVID-19, taking into account all the biological, but above all, psychological and social consequences that it caused in said people.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

Conclusions

In the population studied, the age range of 40-59 years, females, professionals, work-related, and married predominated. The most affected symptomatic cores were cognitive alterations and negative mood. 36% of the participants had PTSD, and of them, 14 needed some therapeutic modality. The sphere of daily life most affected was negative interference in leisure time. The results obtained coincide with the evidence consulted.

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Citation: Lidivet Martínez Calderón, Berkis Martínez Hernández, Betsy Bonachea Sánchez, Ederlys Martín García, Yarielys González Cabrera, Juan Carlos Mirabal Requena. Post-Traumatic Stress Disorder In Adults Diagnosed With COVID-19. Journal of Medical and Clinical Case Reports 2(2). https://doi.org/10.61615/JMCCR/2025/JUNE027140607