### The Relationship Between The Post Trauma Stress Disorder And Covid-19 Incidence Among Uae Citizens; A Cross-Sectional Study

Dr. Mohammad Mahmoud Alrabeei

City University Ajman /UAE.

#### ABSTRACT

COVID-19 psychologically shocked almost everybody in the world, caused millions of deaths, and corrupted every sector of our daily lives. And now after the pandemic, mostly minor studies show that this pandemic has serious effects on our daily lives in the long run. Whether traumatized Emirati university students remain unclear. This study aimed to investigate whether the posttraumatic stress disorder among Emirati students.: This study was performed on a sample of 37 citizens by a questionnaire they to fill, out at the Al Ain University in the United Arab Emirates. A total of thirty-seven participants were surveyed using questionnaires to assess post-traumatic stress disorder. The analysis of the collected data revealed a moderate level of PTSD symptoms and a moderate level of selfconcealment. In conclusion, the existing literature has shown a correlation between posttraumatic stress disorder (PTSD) and COVID-19. Specifically, it has been reported that pupils who have contracted COVID-19 and exhibit emotional disturbances in their personalities are more susceptible to developing posttraumatic stress disorder. Consequently, it is imperative to provide psychological support to these individuals.

Keywords: Post Trauma Stress Disorder - PTSD -COVID-19 - United Arab Emirates – UAE.

#### 1. Introduction

The declaration of a global public health emergency and pandemic has been precipitated by the emergence of the SARS-CoV-2 virus, which elicits a severe acute respiratory illness (Solomon et al., 2021). The first officially recorded case of COVID-19 in Bangladesh was documented on March 8, 2020. Following its initial emergence

(Liu et al., 2021), the virus has exhibited rapid diffusion, resulting in the infection of more than 524,910 individuals and subsequent incidence of 7833 fatalities as of January 18, 2022 (Bonichini and Tremolada, 2021). The transmission of SARS-CoV-2 within various groups can be seen as an epidemic characterized by heightened levels of anxiety and the adoption of avoidance behaviors (Ochnik et al., 2022; Qi et al., 2022). The ongoing epidemic, as documented by Watson (2022), elicits apprehension and unease in public health (Corsi et al., 2021). Additionally, it is associated with significant psychological distress, with potential implications for the development of post-traumatic stress disorder (PTSD) (Liu et al., 2020; Tambelli et al., 2021). The illness under consideration is characterized by enduring symptoms such as distorted memory, avoidance tendencies, irritability, and emotional disengagement, provided that it is not acknowledged and addressed (Ahorsu et al,2020).

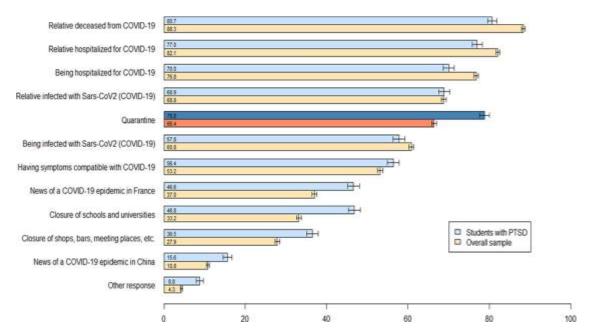


Figure 1 The compilation of events about the pandemic. The yellow bars represent the proportions of students who responded affirmatively throughout the entire sample, the percentage of students who responded affirmatively is shown by the color blue (Wathelet et al., 2021)

Post-traumatic stress disorder (PTSD) is a prevalent psychological disorder that manifests following exposure to emotionally distressing circumstances (Johnson et al., 2020). The issue has been widely acknowledged as a significant source of

distress for individuals affected by it, as well as for the larger societal context (Lenferink et al., 2020). PTSD can be categorized into four distinct classifications, characterized by observable signs and indications (Khalaf and Saied, 2020). The subgroups include of re-experiencing, avoidance, negative alterations in mood and cognition, and hyperarousal (Haderlein et al., 2021). PTSD is a psychological disorder that arises as a result of experiencing stressful events (Kosydar-Bochenek et al., 2022; Yue et al., 2022). PTSD is characterized by a constellation of symptoms, as identified by Liu et al. (2021), which include intrusive thoughts, persistent reexperiencing of the traumatic event, impaired ability to utilize coping strategies, diminished physiological and emotional responsiveness, and a sense of emotional detachment, as noted by Carmassi et al. (2020). According to Tambelli et al. (2021), individuals who have contracted and recovered from COVID-19, as well as their immediate family members, emergency responders (e.g., doctors, nurses, and other healthcare professionals), public servants (including law enforcement officers and volunteers), and the general population, may exhibit symptoms indicative of posttraumatic stress disorder (PTSD) as a result of their exposure to the profound repercussions and devastation caused by the virus. It is anticipated that the COVID-19 pandemic will result in an increased prevalence of mental health disorders, including post-traumatic stress disorder (PTSD), throughout the general population (Nouar and Maache, 2021).

#### 2. literature review

This study is the first-ever research undertaken to document the prevalence of post-traumatic stress disorder (PTSD) using three different approaches (Watson, 2022). The investigation was carried out three months following the imposition of quarantine restrictions in Saudi Arabia, as a direct response to the COVID-19 pandemic (Forte et al., 2020). The impact of the COVID-19 pandemic on the population of Saudi Arabia has been extensively documented by researchers (North et al., 2021; Tang et al., 2020; Greene et al., 2021). Therefore, it is crucial to undertake a thorough examination of the adoption of innovative protocols that specifically target the recognized risk factors, particularly among populations that display increased susceptibility (Haderlein et al., 2021), to alleviate the psychological consequences of the COVID-19 pandemic (Fahad et al., 2020). The results suggest a possible

correlation between the enforcement of quarantine measures in Lebanon and the manifestation of symptoms typically linked to post-traumatic stress disorder (Fan et al., 2021). The symptoms exhibited heightened severity during the second week of isolation and were further aggravated during the fourth week of the COVID-19 quarantine period (Sfera et al., 2021). The COVID-19 quarantine has had a significant influence on the psychological well-being of those dwelling in Lebanon. It is crucial to comprehensively analyze the potential enduring ramifications that may persist beyond the conclusion of this temporal interval (Fawaz and Samaha, 2020). The dysphoria factor was proposed as a result of empirical findings that suggest post-traumatic stress disorder (PTSD) includes a core component of general distress, which is also present in several mood and anxiety disorders (Maj Hansen et al., 2010).

The COVID-19 disease, caused by the coronavirus, first emerged in China and thereafter exhibited rapid transmission to multiple countries. The primary objective of a recent study conducted by Chang and Park (2020) was to investigate the prevalence of posttraumatic stress disorder (PTSD) in a cohort of individuals who had been diagnosed with COVID-19, received medical treatment, and were subsequently discharged from a university hospital in Daegu, Korea. The researchers performed telephone interviews with participants to evaluate the prevalence of post-traumatic stress disorder (PTSD). The assessment of PTSD was conducted to find that a total of thirteen participants in the study obtained a PCL-5 score of 33, indicating that 20.3% of the entire sample satisfied the diagnostic criteria for PTSD. No statistically significant differences were found in demographic characteristics, including gender, age, length of hospitalization, and duration after discharge, between patients diagnosed with PTSD and those without the diagnosis. In summary, the analysis yielded findings indicating that individuals who were hospitalized, received medical assistance, and subsequently discharged as a result of the COVID-19 pandemic exhibited a PTSD incidence rate of 20.3% (Tambelli et al., 2021; Liu et al., 2020). Hence, healthcare professionals must hold a comprehensive understanding of the heightened probability of PTSD among those impacted by the COVID-19 pandemic (Bonichini and Tremolada, 2021). The delivery of mental health therapy to individuals who have encountered mental health challenges is crucial in promoting their overall well-being (Chang and Park, 2020).

#### 3. PTSD and COVID-19

Tambelli et al. (2021) have documented occurrences of elevated levels of apprehension, anxiety, fluctuations in mood, disruptions in sleep patterns, inclinations towards compulsive hygiene, and signs of symptoms associated with post-traumatic stress disorder (PTSD). Currently, there is a lack of certainty regarding the potential long-term negative impacts of the COVID-19 pandemic on mental health. However, conducting a thorough examination of past occurrences of infectious disease outbreaks that have occurred in the current century can provide useful insights into the psychiatric illnesses that arise as a result of pandemics. In the contemporary era (Carmassi et al., 2020), two viral diseases have emerged, leading to worldwide pandemics akin to the ongoing COVID-19 pandemic (Watson, 2022). It has been unequivocally indicated a notable decline in physical fitness among a substantial proportion of individuals who had been released from the healthcare institution half a year earlier (Blekas et al., 2020). Furthermore, the patients who successfully endured also had decreased respiratory function and psychological well-being. According to Liu et al. (2020), it was observed that almost 33% of survivors displayed indications of PTSD, anxiety, and depression after the six-month milestone. Moreover, a subset of individuals who contracted the ailment experienced persistent challenges in their overall well-being, as evidenced by a decrease in their quality of life that persisted for at least one year after their release from medical intervention. The study has revealed more evidence suggesting that the enduring psychological consequences were not exclusively attributable to the infectious disease itself but were also impacted by many factors such as fear, stigma, and the challenges associated with the isolation protocol. Regarding the issue of job limitation among those who have recovered from SARS, empirical data suggests that a significant proportion, specifically 17%, experienced ongoing occupational impairment even one year after contracting the virus infection (Watson, 2022). Currently, it is premature to draw definitive conclusions regarding potential manifestation of comparable psychological consequences reported in individuals affected by previous outbreaks of SARS (Liyanage-Don et al., 2022) and MERS, in the ongoing COVID-19 pandemic (Haderlein et al., 2021).

#### 4. Conceptual Framework

The incidence of PTSD for students who are infected with COVID-19 is determined by various variables, the first variable is the PTSD occurrence score which determines the occurrence of that disease among students, then independent variables such as their demographic variables (age, gender) as well as COVID-19 happening and presence of any chronic diseases.

#### 5. Method

#### **Study Design**

This research employs a descriptive cross-sectional study design. This method was used specifically because this type of design is typically affordable and straightforward to carry out. it is beneficial for gathering initial evidence when preparing for a forthcoming advanced investigation.

#### 6. Participants

#### **Target Population**

The target population for this research comprises students at Al Ain University in UAE, different students in the AL Ain University selection were according to certain eligibility criteria as shown in the following table,

Table 1 The eligibility criteria for sample selection

Inclusion Criteria	Exclusion Criteria
Students who are learning at	Students who are absent for
Al Ain University.	sick leave or other reasons
	throughout this study.
Students who are previously	Students who are not willing
infected with COVID-19 or one	to participate in this study.
of their relatives.	
Students without any	
psychological disorders.	

#### **Sample Size**

A randomly selected group of 64 students were eligible for the inclusion criteria of sample collection. The total population of students at Al Ain University is 4316 students the target population was determined and this sample size was determined, and the

minimum required sample size for the cross-sectional study, z = 1.96 at a 5% level of significance, and the estimated proportion was 0.5, The margin of error (d) was 5%, the sample size was calculated according to Haderlein et al. (2021) study and by Thomas Thompson equation as follows;

$$n = \frac{N P(1-P)}{(N-1)(\frac{d}{z})^2 + p(1-p)}$$

#### 7. Measures

#### **Study Variables**

There are various variables may affect the incidence of PTSD among young students who are free of any psychological disorders, the dependent variable is PTSD incidence and occurrence of that disorder among the selected student, while the independent variables which may affect the incidence of PTSD are some of the sociodemographic data such as age and gender, as well as the occurrence or COVID-19, or presence of chronic diseases.

#### **Research Instrument and Data Collection**

Data for this study was collected through the administration of a structured questionnaire. It is proposed to find several specific ways that clinical educators might employ to effectively integrate resilience training into their instructional practices. The concept of promoting resilience within the context of clinical education presents an opportunity to engage in discourse regarding potential advancements in educational methodologies (Blevins et al., 2015). The researchers employed the PTSD Checklist, a tool specified to assess the post-traumatic stress disorder (PTSD) experienced by this study population in Wuhan, China, six months following the epidemic (Liu et al., 2020). The utilization of this scale has been extensively and frequently employed in prior research endeavors. The measure comprises a total of 20 items that are evaluated using a Likert-type scale, which ranges from 0, indicating "not at all," to 4, indicating "extremely." The range of total scores spans from 0 to 80, with higher scores suggesting a greater degree of symptom severity. A cutoff score of 33 or higher is used to determine the

presence of significant symptoms. The aforementioned assertions are categorized into four discrete domains: re-experiencing (consisting of 5 items with 0 to 20), avoidance (comprising 2 items with 0 to 8), negative alterations in cognition and mood (comprised of 6 items with 0 to 24), and arousal (consisting of 7 items with 0 to 28). The research team distributed structured questionnaires to all participants via email, allowing a generous two-week timeframe for the participants to complete the questionnaires and submit them back to the researcher.

#### Study reliability

Determining the tool and item's reliability by measuring Cronbach alpha to find that the first twelve items revealed a score of 0.941 while the second 16 items showed a 0.994 score while the results of the study reliability showed that the overall reliability of the questionnaire was 0.876. These findings indicate that the study's questionnaire tool exhibited high reliability.

Table 2 PTSD checklist tool reliability determining

No	Domain	No. items	Cronbach's Alpha
1	PTSD checklist (0-12)	12	0.941
2	PTSD checklist (13-28)	16	0.994
	Total scale	28	0.876

#### Statistical analysis

SPSS software version 25 was used and upon completion of data collection, the presentation of qualitative data typically involves the utilization of frequency and percentage measures, whilst quantitative data is commonly summarized using mean and standard deviation (Corsi et al., 2021). An independent t-test was conducted to evaluate the disparity between the mean scores of two continuous variables. The analysis of variance (ANOVA) test was employed to compare the means of multiple continuous variables (Qi et al., 2022). The Pearson correlation coefficient was employed to ascertain the association between variables that are measured on a continuous scale (Liu et al., 2021).

#### 8. Results

#### Demographic characteristics

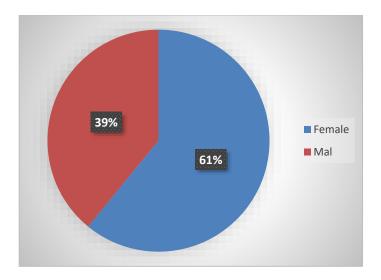


Figure 2 The gender distribution among this study participants

Of the total 64 students, 39 (61%) were females while 25 (39%) were males.

Table 3 The demographic data

Work field	Frequency	Percent
Freelance	2	3.1
Governmental sector	24	37.5
Privet sector	4	6.3
Student	28	43.8
Un employment	6	9.4
Working outside Within COVID 19	Frequency	Percent
Some times	10	15.6
No	32	50.0
Yes	22	34.4
Presence of chronic diseases	Frequency	Percent
Blood pressure or Harte dresses	4	6.2

Bronchitis diseases	6	9.4
Kidney disease	3	4.7
No	51	79.7
Total	64	100

The previous table found that the majority (43.8%) were working as only students while 37.5% were working in the governmental sector and the minority were freelance (3.1%). Regarding the work during the COVID pandemic, the majority were not working (50%) while only 15.6% were working sometimes. Belonging to the presence of chronic diseases, most of them (79.7%) have no chronic diseases while only 4.7% have kidney diseases.

Table 4 Working outside If they infected by COVID-19 incidence

Working outside If they are infected by COVID-19	Frequency	Percent
No	17	26.6
Yes	47	73.4
If they may have been in contact with someone infected with COVID-19 and went through quarantine procedures	Frequency	Percent
Yes, at work	17	10.9
Yes, with relevant	40	26.6
No	7	62.5
Total	64	100

About 73.4% of this study participants were working despite being infected with CPVID-19 and most of them (62.5%) were not going through quarantine procedures and about 26.5% were going with relevant ones.

# The responses toward PTSD incidence with COVID-19 infection Table 5 Presentations for sample response to PTSD (COVID-19)

Item	Not at al	A little	Moder ately	Qu ite a bit	Extre mely	To tal
Experiencing "flashbacks," wherein an individual abruptly exhibits behaviors or emotions reminiscent of a previous distressing encounter (such as the COVID-19 pandemic), as if the event were occurring in the present moment.	20	18	17	6	3	64
The individual reports experiencing recurrent and distressing dreams related to the highly challenging circumstances surrounding the COVID-19 pandemic.	50	6	7	0	1	64
Experiencing a sudden resurgence of emotions or behaviors reminiscent of the distressing encounter (COVID-19) as if it were presently occurring.	41	13	6	1	3	64
Experiencing profound emotional distress upon seeing stimuli that serve as reminders of the highly challenging	41	9	9	3	2	64

## encounter with the COVID-19 pandemic.

Do individuals experience pronounced physiological responses, such as increased heart rate, difficulty breathing, and perspiration, when encountering stimuli that serve as reminders of the distressing encounter with COVID- 19?	44	11	7	1	1	64
Engaging in strategies to prevent the recollection, contemplation, or emotional processing of memories, thoughts, or feelings associated with the distressing encounter with the COVID-19 pandemic.	38	11	10	4	1	64
Strategies for mitigating the impact of the distressing encounter with COVID-19 may involve minimizing exposure to external stimuli associated with the pandemic, such as individuals, locations, discussions, engagements, items, or circumstances.	42	10	9	3	0	64
Individuals may encounter difficulties in recalling significant aspects of the	42	14	6	1	1	64

distressing encounter with the COVID-19 pandemic.

Is there a possibility of experiencing emotional detachment or an inability to experience affectionate emotions towards individuals nearby during the COVID-19 pandemic?	36	14	11	1	2	64
Experiencing a sense of detachment or isolation from interpersonal connections after the COVID-19 pandemic?	25	14	16	3	6	64
A decline in engagement with previously enjoyed activities after the onset of the COVID-19 pandemic.	32	10	12	4	6	64
Do individuals experience a sense of apprehension regarding the potential truncation of their prospects in the aftermath of the COVID-19 pandemic?	43	10	6	4	1	64
Are individuals experiencing difficulties in initiating or maintaining sleep patterns after contracting COVID-19?	29	11	12	6	6	64
Is there a correlation between experiencing irritability or exhibiting angry outbursts	31	8	13	7	5	64

### following the onset of COVID-19?

Are individuals experiencing challenges with maintaining focus and concentration in the aftermath of COVID-19?	25	19	9	5	6	64
Is there an increased state of vigilance or heightened alertness following the COVID-19 pandemic?	23	14	10	11	6	64
Is there an increased prevalence of hyperarousal symptoms such as heightened startle response or feelings of restlessness following the experience of COVID-19?	26	15	9	6	8	64

The previous table illustrates the responses of participants, to find that Experiencing "flashbacks," wherein an individual abruptly exhibits behaviors or emotions reminiscent of a previous distressing encounter (such as the COVID-19 pandemic), as if the event were occurring in the present moment. Is not at all (n=20), also, The individual reports experiencing recurrent and distressing dreams related to the highly challenging circumstances surrounding the COVID-19 pandemic, Experiencing a sudden resurgence of emotions or behaviors reminiscent of the distressing encounter (COVID-19) as if it were presently occurring, Experiencing profound emotional distress upon seeing stimuli that serve as reminders of the highly challenging encounter with the COVID-19 pandemic, Do individuals experience pronounced physiological responses, such as increased heart rate, difficulty breathing, and perspiration, when encountering stimuli that serve as reminders of the distressing encounter with COVID-19?, and Engaging in strategies to prevent the recollection, contemplation, or emotional processing of memories, thoughts, or feelings associated with the distressing encounter with the COVID-19 pandemic are not at all with (n=50, 41,41, 44, and 38), respectively.

Also, Strategies for mitigating the impact of the distressing encounter with COVID-19 may involve minimizing exposure to external stimuli associated with the pandemic, such as individuals, locations, discussions, engagements, items, or circumstances and Individuals may encounter difficulties in recalling significant aspects of the distressing encounter with the COVID-19 pandemic are not at all with 42 responses for each one.

Other responses were also Not at all to respond with (n= 36,25,32, 43, 29, 31, 25,23, and 26), for Is there a possibility of experiencing emotional detachment or an inability to experience affectionate emotions towards individuals nearby during the COVID-19 pandemic? Experiencing a sense of detachment or isolation from interpersonal connections after the COVID-19 pandemic? A decline in engagement with previously enjoyed activities after the onset of the COVID-19 pandemic, Do individuals experience a sense of apprehension regarding the potential truncation of their prospects in the aftermath of the COVID-19 pandemic? Are individuals experiencing difficulties in initiating or maintaining sleep patterns after contracting COVID-19? Is there a correlation between experiencing irritability or exhibiting angry outbursts following the onset of COVID-19? Are individuals experiencing challenges with maintaining focus and concentration in the aftermath of COVID-19? Is there an increased state of vigilance or heightened alertness following the COVID-19 pandemic?, Is there an increased prevalence of hyperarousal symptoms such as heightened startle response or feelings of restlessness following the experience of COVID-19? respectively.

While high responses with extreme occurrence with 5 and 6 responses were for Experiencing a sense of detachment or isolation from interpersonal connections after the COVID-19 pandemic? A decline in engagement with previously enjoyed activities after the onset of the COVID-19 pandemic, Are individuals experiencing difficulties in initiating or maintaining sleep patterns after contracting COVID-19? Is there a correlation between experiencing irritability or exhibiting angry outbursts following the onset of COVID-19? Are individuals experiencing challenges with maintaining focus and concentration in the aftermath of COVID-19? Is there an increased state of vigilance or

heightened alertness following the COVID-19 pandemic? Is there an increased prevalence of hyperarousal symptoms such as heightened startle response or feelings of restlessness following the experience of COVID-19?

Table 6 The total responses of this study participants

Total Response	Frequency	Percent
From 0-10	29	45.31
From 11-20	16	25
From 21-31	10	15.63
32-44	7	10.93
45-85	2	3.13

The highest percentage of total responses for the study participant is shown in items from 0 to 10 with 45.3% and the lowest response was illustrated in the last 45 to 85 (3.13%).

#### 9. Discussion

The primary aim of this research investigation was to assess the prevalence of post-traumatic stress disorder (PTSD) among students from the United Arab Emirates. The study comprised a cohort of 37 participants, predominantly consisting of adults who were registered as students. Moreover, it is worth mentioning that a significant proportion, particularly above 33%, of the persons participating in the study were gainfully employed during the ongoing COVID-19 epidemic. It is important to highlight that the subjects did not exhibit any additional pre-existing chronic medical conditions that could plausibly account for the onset of post-traumatic stress disorder, save for the presence of the COVID-19 pandemic (Carmassi et al., 2020). Regarding the participant's responses to the association between the prevalence of PTSD and the occurrence of COVID-19, the results of this study suggest that a significant proportion of the participants exhibited diminished levels of trauma in reaction to the COVID-19 pandemic. The findings are consistent with the research conducted by Chang and Park (2020), which entailed a study including 64 patients who had been diagnosed with COVID-19.

The aforementioned individuals were subsequently admitted to a tertiary care institution affiliated with a university, where they received medical treatment and were subsequently discharged. This event transpired during the period spanning from February to April in the year 2020. The researchers employed telephone interviews as a means of assessing the occurrence of posttraumatic stress disorder (PTSD) among the individuals involved in the study. The investigators utilized the Post-Traumatic Stress Disorder Checklist-5 (PCL-5) for the aforementioned purpose. The psychometric tool referred to as the Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5) is based on the Diagnostic and Statistical Manual of Mental Disorders (DSM-5). The evaluation offers a numerical assessment, utilizing a scoring system that spans from 0 to 80. Participants who achieved a score of 33 or higher were classified as matching the diagnostic criteria for PTSD. The present study employed statistical techniques, namely the Mann-Whitney U and chi-square tests, to examine the relationship between post-traumatic stress disorder (PTSD) and several demographic and clinical factors. The analysis of the complete sample revealed that a cohort of 13 participants had a PCL-5 score that met or above the predetermined criterion of 33. The present discovery suggests that around 20.3% (n = 64) of the individuals meet the diagnostic criteria for PTSD. There were no statistically significant disparities observed in demographic attributes, such as gender, age, duration of hospital stay, and time elapsed following release, between individuals who received a diagnosis of PTSD and those who did not. The results of the study revealed that among the individuals who were hospitalized, had medical treatment, and were subsequently discharged after being diagnosed with COVID-19, the prevalence of PTSD was determined to be 20.3%. Hence, healthcare practitioners must get a comprehensive understanding of the heightened probability of post-traumatic stress disorder (PTSD) in patients diagnosed with COVID-19. The provision of mental health interventions to individuals with mental health difficulties is crucial for enhancing their overall welfare. In a recent study conducted by Nishimi et al. (2022), the researchers investigated the incidence of PTSD among a cohort of 64 individuals who received a diagnosis of COVID-19, were admitted to a university hospital, underwent medical intervention, and subsequently were discharged. The research findings suggest that a percentage of 20.3% of individuals who had been hospitalized, treated, and eventually discharged as a result of COVID-19 were diagnosed with PTSD.

The study's findings have unveiled a significant association between post-traumatic stress disorder (PTSD) and COVID-19, as shown by the development of emotional challenges. The findings of this study are consistent with the discoveries made by Ashby et al. (2022), who reported a statistically significant interaction effect. This implies that the correlation between acute stress resulting from COVID-19 and the onset of post-traumatic stress disorder (PTSD) is impacted by the cumulative consequences of previous traumatic encounters. Moreover, this interaction effect illustrates diverse consequences for individuals with Asian and White racial backgrounds. The research revealed significant correlations between traumatic stress arising from the COVID-19 pandemic and the development of post-traumatic stress disorder (PTSD) within various racial cohorts, irrespective of the level of cumulative trauma encountered. In contrast, previous research has indicated that there is no statistically significant association between increased levels of cumulative trauma and the severity of symptoms related to post-traumatic stress disorder (PTSD) among individuals of Asian descent within the context of COVID Traumatic Stress. However, empirical research has provided evidence indicating that even low levels of cumulative trauma may be linked to a decline in the prognosis of those who have been diagnosed with post-traumatic stress disorder.

#### 10. Conclusion

COVID-19 is one of the most important factors that raises and elaborates the psychological disorders such as PTSD, the findings suggest that the fear of COVID-19 may be a contributing factor in the contact between people with PTSD. Most individuals did not remember experiencing symptoms, but they had concurrent illnesses., also, the association between posttraumatic stress disorder (PTSD) and COVID-19 has been established, indicating that pupils who have contracted COVID-19 and exhibit emotional disturbances in their personalities are more susceptible to developing PTSD. The study has revealed a notable correlation between post-traumatic stress disorder (PTSD) and COVID-19, as evidenced by the emergence of emotional difficulties. It is crucial to emphasize that the participants did not show any other pre-existing chronic medical illnesses that could reasonably explain

the development of post-traumatic stress disorder, except for the existence of the COVID-19 pandemic. Therefore, it is crucial to provide psychological support to these individuals.

#### **Ethical Approval**

In adherence to the legal framework and regulatory provisions of the United Arab Emirates (UAE), the participation in the study was entirely voluntary, affording participants the autonomy to withdraw from the study at their discretion, without any constraints. To safeguard the confidentiality of participants, the study refrained from gathering any personally identifiable information such as names or email addresses. Hence, the confidentiality of each participant's identity was rigorously maintained throughout the course of the inquiry. The study participants, who were healthcare professionals, gave their informed consent to engage in the research. The participants were provided with detailed verbal and written descriptions pertaining to the aims and methodologies of the study. In compliance with local legislation and institutional regulations, ethical approval was deemed unnecessary for this study involving human participants. This determination was made due to the research's focus on mental healthcare professionals and its lack of physical or psychological impact on them.

#### **Competing interests**

All declared that there is no type of conflict of interest in this study.

#### **Funding**

This study was conducted independently of any financial source or fundraising.

#### Availability of data and materials

The data collected during this study currently conducted and analyzes are readily available upon request.

#### References

Ashby, J. S., Rice, K. G., Kira, I. A., & Davari, J. (2022). The relationship of COVID-19 traumatic stress, cumulative trauma, and race to posttraumatic stress disorder symptoms. Journal of Community Psychology, 50(6), 2597-2610.

Blevins, C. A., Weathers, F. W., Davis, M. T., Witte, T. K., & Domino, J. L. (2015). The posttraumatic stress disorder checklist for DSM-5 (PCL-5):

Development and initial psychometric evaluation. Journal of traumatic stress, 28(6), 489-498.

Bonichini, S., & Tremolada, M. (2021). Quality of Life and Symptoms of PTSD during the COVID-19 Lockdown in Italy. International journal of environmental research and public health, 18(8), 4385.

Carmassi, C., Foghi, C., Dell'Oste, V., Cordone, A., Bertelloni, C. A., Bui, E., & Dell'Osso, L. (2020). PTSD symptoms in healthcare workers facing the three coronavirus outbreaks: What can we expect after the COVID-19 pandemic. Psychiatry Research, 292, 113312.

Carmassi, C., Foghi, C., Dell'Oste, V., Cordone, A., Bertelloni, C. A., Bui, E., & Dell'Osso, L. (2020). PTSD symptoms in healthcare workers facing the three coronavirus outbreaks: What can we expect after the COVID-19 pandemic. Psychiatry research, 292, 113312.

Chamaa, F., Bahmad, H. F., Darwish, B., Kobeissi, J. M., Hoballah, M., Nassif, S. B., ... & Abou-Kheir, W. (2021). PTSD in the COVID-19 Era. Current neuropharmacology, 19(12), 2164.

Chang, M. C., & Park, D. (2020, September). Incidence of post-traumatic stress disorder after coronavirus disease. In Healthcare (Vol. 8, No. 4, p. 373). MDPI.

Fahad S. Alshehri a,1,1, Yasser Alatawi b, Badrah S. Alghamdi c, Abdullah A. Alhifany d, Adnan Alharbi d (2020). Prevalence of post-traumatic stress disorder during the COVID-19 pandemic in Saudi Arabia Published by Elsevier B.V. on behalf of King Saud University.

Haderlein, T. P., Wong, M. S., Yuan, A., Llorente, M. D., & Washington, D. L. (2021). Association of PTSD with COVID-19 testing and infection in the Veterans Health Administration. Journal of psychiatric research, 143, 504-507.

Healthcare 2020, 8, 373; doi:10.3390/healthcare804 0373

Incidence of Post-Traumatic Stress Disorder after Coronavirus Disease Min Cheol Chang 1 and Donghwi Park 2,\*1 Department of Physical Medicine and Rehabilitation, College of Medicine, Yeungnam University, Daegu 38541, Korea; wheel633@ynu.ac.kr 2 Department of Physical Medicine and Rehabilitation, Ulsan University Hospital, University of Ulsan College of Medicine, Ulsan 44033, Korea

Journal Title: Saudi Pharmaceutical Journal

Liu, C. H., Erdei, C., & Mittal, L. (2021). Risk factors for depression, anxiety, and PTSD symptoms in perinatal women during the COVID-19 Pandemic. Psychiatry research, 295, 113552.

Liu, C. H., Zhang, E., Wong, G. T. F., & Hyun, S. (2020). Factors associated with depression, anxiety, and PTSD symptomatology during the COVID-19 pandemic: Clinical implications for US young adult mental health. Psychiatry research, 290, 113172.

Liu, N., Zhang, F., Wei, C., Jia, Y., Shang, Z., Sun, L., ... & Liu, W. (2020). Prevalence and predictors of PTSS during COVID-19 outbreak in China hardest-hit areas: Gender differences matter. Psychiatry research, 287, 112921.

Mackrill3 1 National Center for Psychotraumatology, University of Southern Denmark 2 University of Ulster, Magee Campus, Londonderry, Northern Ireland, United Kingdom 2 Centre for Alcohol and Drug Research, Aarhus University, Denmark Clinical Practice & Epidemiology in Mental Health, 2010, 6, 101-108

Maj Hansen1,\*, Tonny Elmose Andersen1, Cherie Armour2, Ask Elklit 1, Sabina Palic 1 and Thomas

Mirna Fawaz1 and Ali Samaha1,2,3,4 (2020) COVID-19 quarantine: Post-traumatic stress symptomatology among Lebanese citizens International Journal of Social Psychiatry 2020, Vol. 66(7) 666–674

Nishimi, K., Borsari, B., Marx, B. P., Tripp, P., Woodward, E., Rosen, R. C., ... & O'Donovan, A. (2022). Posttraumatic stress disorder symptoms associated with protective and risky behaviors for coronavirus disease 2019. Health Psychology, 41(2), 104.

Nouar, C., & maache, salma. (2021). Post-traumatic stress disorder COVID-19, A clinical study of one case. 819-810 ,(2)14, psychological and educational studies

Solomon, Z., Mikulincer, M., Ohry, A., & Ginzburg, K. (2021). Prior trauma, PTSD long-term trajectories, and risk for PTSD during the COVID-19 pandemic: A 29-year longitudinal study. Journal of psychiatric research, 141, 140-145.

Tambelli, R., Forte, G., Favieri, F., & Casagrande, M. (2021). Effects of the coronavirus pandemic on mental health: A possible model of the direct and indirect impact of the pandemic on PTSD symptomatology COVID-19 related. Psychology Hub, 38(2), 23-30.

Wathelet, M., Fovet, T., Jousset, A., Duhem, S., Habran, E., Horn, M., ... & D'hondt, F. (2021). Prevalence of and factors associated with post-traumatic stress disorder among French university students 1 month after the COVID-19 lockdown. Translational psychiatry, 11(1), 327.

Watson, P. (2022). Stress, PTSD, and COVID-19: The utility of disaster mental health interventions during the COVID-19 pandemic. Current treatment options in psychiatry, 9(1), 14-40.

Sayed, Rasha Ahmed Khalaf. (2020). Fear of Corona "Covid-19" and its relationship to post-traumatic stress disorder among a sample of adults in light of some demographic variables (a psychometric-clinical study). international journal of educational and psychological sciences, ,(1)56 252-192. doi: 10.21608/ijeps.2020.252627

Blekas, A., Voitsidis, P., Athanasiadou, M., Parlapani, E., Chatzigeorgiou, A. F., Skoupra, M., ... & Diakogiannis, I. (2020). COVID-19: PTSD symptoms in Greek health care professionals. Psychological Trauma: Theory, Research, Practice, and Policy, 12(7), 812.

Liyanage-Don, N. A., Winawer, M. R., Hamberger, M. J., Agarwal, S., Trainor, A. R., Quispe, K. A., & Kronish, I. M. (2022). Association of depression and COVID-induced PTSD with cognitive symptoms after COVID-19 illness. General Hospital Psychiatry, 76, 45-48.

Forte, G., Favieri, F., Tambelli, R., & Casagrande, M. (2020). COVID-19 pandemic in the Italian population: validation of a post-traumatic stress disorder questionnaire and prevalence of PTSD symptomatology. International journal of environmental research and public health, 17(11), 4151.

Sfera, A., Osorio, C., Rahman, L., Zapata-Martín del Campo, C. M., Maldonado, J. C., Jafri, N., ... & Kozlakidis, Z. (2021). PTSD as an endothelial disease: Insights from COVID-19. Frontiers in Cellular Neuroscience, 15, 770387.

Tambelli, R., Forte, G., Favieri, F., & Casagrande, M. (2021). Effects of the coronavirus pandemic on mental health: A possible model of the direct and indirect impact of the pandemic on PTSD symptomatology COVID-19 related. Psychology Hub, 38(2), 23-30.

Liu, C. H., Zhang, E., Wong, G. T. F., & Hyun, S. (2020). Factors associated with depression, anxiety, and PTSD symptomatology during the COVID-19 pandemic: Clinical implications for US young adult mental health. Psychiatry research, 290, 113172.

Liu, C. H., Erdei, C., & Mittal, L. (2021). Risk factors for depression, anxiety, and PTSD symptoms in perinatal women during the COVID-19 Pandemic. Psychiatry research, 295, 113552.

Haderlein, T. P., Wong, M. S., Yuan, A., Llorente, M. D., & Washington, D. L. (2021). Association of PTSD with COVID-19 testing and infection in the Veterans Health Administration. Journal of psychiatric research, 143, 504-507.

North, C. S., Surís, A. M., & Pollio, D. E. (2021). A nosological exploration of PTSD and trauma in disaster mental health and implications for the COVID-19 pandemic. Behavioral Sciences, 11(1), 7.

Tang, W., Hu, T., Hu, B., Jin, C., Wang, G., Xie, C., ... & Xu, J. (2020). Prevalence and correlates of PTSD and depressive symptoms one month after the outbreak of the COVID-19 epidemic in a sample of homequarantined Chinese university students. Journal of affective disorders, 274, 1-7.

Greene, T., Harju-Seppänen, J., Adeniji, M., Steel, C., Grey, N., Brewin, C. R., ... & Billings, J. (2021). Predictors and rates of PTSD, depression and anxiety in UK frontline health and social care workers during COVID-19. European Journal of Psychotraumatology, 12(1), 1882781.

Johnson, S. U., Ebrahimi, O. V., & Hoffart, A. (2020). PTSD symptoms among health workers and public service providers during the COVID-19 outbreak. PloS one, 15(10), e0241032.

Ochnik, D., Rogowska, A. M., Arzenšek, A., & Benatov, J. (2022). Longitudinal predictors of coronavirus-related PTSD among young adults from Poland, Germany, Slovenia, and Israel. International journal of environmental research and public health, 19(12), 7207.

Qi, G., Yuan, P., Qi, M., Hu, X., Shi, S., & Shi, X. (2022). Influencing factors of high PTSD among medical staff during COVID-19: evidences from both meta-analysis and subgroup analysis. Safety and Health at Work.

Corsi, M., Orsini, A., Pedrinelli, V., Santangelo, A., Bertelloni, C. A., Carli, N., ... & Carmassi, C. (2021). PTSD in parents of children with severe diseases: a systematic review to face Covid-19 impact. Italian Journal of Pediatrics, 47(1), 1-7.

Kosydar-Bochenek, J., Krupa, S., Favieri, F., Forte, G., & Medrzycka-Dabrowska, W. (2022). Polish Version of the Post-traumatic Stress Disorder Related to COVID-19 Questionnaire COVID-19-PTSD. Frontiers in Psychiatry, 13, 868191.

Yue, J., Zang, X., Le, Y., & An, Y. (2022). Anxiety, depression and PTSD among children and their parent during 2019 novel coronavirus disease (COVID-19) outbreak in China. Current Psychology, 41(8), 5723-5730.

Lenferink, L. I. M., Meyerbröker, K., & Boelen, P. A. (2020). PTSD treatment in times of COVID-19: A systematic review of the effects of online EMDR. Psychiatry research, 293, 113438.

Bonichini, S., & Tremolada, M. (2021). Quality of Life and Symptoms of PTSD during the COVID-19 Lockdown in Italy. International journal of environmental research and public health, 18(8), 4385.

Fan, C., Fu, P., Li, X., Li, M., & Zhu, M. (2021). Trauma exposure and the PTSD symptoms of college teachers during the peak of the COVID-19 outbreak. Stress and Health, 37(5), 914-927.

Watson, P. (2022). Stress, PTSD, and COVID-19: The utility of disaster mental health interventions during the COVID-19 pandemic. Current treatment options in psychiatry, 9(1), 14-40.