# Covid-19 and Post-traumatic stress disorder among Recovered Nurses

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## Abstract

Global pandemic status was given to the novel coronavirus (COVID-19) outbreak by the World Health Organization (WHO) in March 2020. Those working in healthcare who directly diagnose, treat, and care for patients infected with COVID-19 are susceptible to developing post-traumatic stress disorder (PTSD). The purpose of this study was to assess risk factors and look into the prevalence of PTSD among hospitalized nurses. At Baghdad Hospitals, a descriptive study was carried out using the Impact of Event Scale - Revised (IES-R). From November to December 2022, 101 questionnaires were distributed as part of the data collection process. Of the total sample, 44.6% of nurses perceive mild levels of post-traumatic stress and 22.8% perceive moderate levels. The study findings showed that there is significant relationship among perceived stress among nurses with regard to their socioeconomis status at p-value= .015. The study's findings demonstrated that a significant amount of psychological distress was present in the sample. Monitoring the immediate and long-term effects of the COVID-19 pandemic is necessary, as is putting early intervention strategies into action.

**Keywords: PTSDs, COVID-19**

## Introduction

Our way of life has been drastically changed by the coronavirus disease 2019 (COVID-19) pandemic (Hillewi C. Lena W. G. S. Karin, Von H. Petra. W. 2022). It had a detrimental impact on our health and crippled economies around the globe. Given that COVID-19 is a serious health concern, healthcare workers, particularly those on the front lines, have a difficult task ahead of them: figuring out how to properly inform the public about the virus without spreading panic, safeguarding against infection without sacrificing the effectiveness of treatment, and managing additional stressors related to COVID-19 (Wendy Z. S. Emily, Derek T. 2022). Therefore, the stress of working in a COVID-19 environment on a daily basis may cause psychological difficulties for frontline healthcare workers. The transactional model of stress states that stress, in the absence of appropriate coping mechanisms, can cause predisposed illness in any individual (Ayazi, T. Lien, L. Eide, A. H. 2012). Accordingly, unmanaged stressors can result in psychological issues like anxiety, depression, and trouble sleeping (Xiao H, Zhang Y, Kong D, Li S, Yang N. 2020). It might be wise to investigate the frequency of psychological distress among front-line healthcare personnel as a result. Additionally, some healthcare professionals catch COVID-19 during these life-saving procedures, which can be fatal, particularly for doctors and nurses (Fjeldheim C. B. Nöthling J. Pretorius K. , M. Basson 2014). The possibility that their surviving coworkers could catch COVID-19 and die as a result could traumatize them. Their life may be negatively impacted by stress-related disorders like post-traumatic stress disorder (PTSD) or acute stress

disorder (ASD), which may result from this trauma. Previous research has shown that this may have a significant negative influence on their psychological health, which may include sleep issues such as insomnia, depression, anxiety, and stress (Lu, M. Y. Ahorsu, D. K. S., Kukreti, Strong, C. Lin, Y. H. Kuo, Y. J. Chen, Y. P. Lin, C. Y. Chen, P. L. Ko, N. Y. as well as Ko, W. C. 2021). As a result, the ongoing worry about catching COVID-19 could have an impact on productivity (Lauvrud C, Nonstad K, Palmstierna T). 2009). Furthermore, because COVID-19 has a bad reputation, people who have survived the illness experience stigma, either from others—perceived stigma or from within—self-stigma, with healthcare professionals being one of the primary victims (Czaja A. S, Moss M. Mealer M. 2012). Regrettably, this occurs among healthcare professionals themselves, which could contribute to attitudes that further stigmatize themselves. These viewpoints are harmful to healthcare workers' psychological health and may have a domino effect on their employment and interpersonal interactions (Wendy Z. S. Emily, Derek T. 2022). Acquiring sufficient knowledge about the mindset towards COVID-19 and its correlation with psychological consequences could aid in prophylactic actions and alleviate public anxieties regarding COVID-19. Therefore, the purpose of this study was to investigate the correlations and prevalence of post-traumatic stress disorder among healthcare professionals.

## Methodology

### Design of the study:

A Cross-sectional study used the assessment approach to assess Post-traumatic stress disorder among Recovered Nurses. Data

collection was carried out through the period of the 1st of November 2022 to 15th of December 2022.

## Ethical Consideration:

This study took several ethical considerations into account. The researcher obtained ethical approval from the Scientific Research Ethics Committee at the University of Baghdad/College of Nursing before collecting any data. All participants then provided informed consent after being given a full explanation of what the study was about. In order to keep information about individual nurses private, no details which could identify them were included in the dataset; instead, each person was allocated a code known only to staff involved with this project. Data itself were stored on secure servers that could not be accessed by anyone other than authorized personnel—therefore ensuring confidentiality throughout this process.

## Settings of the Study:

The research took place at the medical city hospitals in Iraq's capital city. Information for the study was gathered throughout three months, which ran from winter 2022 -- allowing researchers to document what nurses experienced.

## Sample of the study:

Non probability snow ball sampling technique was used. A total 101 nurses have been selected from hospitals in Baghdad. The sample were surveyed via the internet through the use of electronic questionnaire.

**Instrument of the study**:

The questionnaire consisted of two parts. The first part contains information regarding demographic characteristics such as (age, gender, and years of experience). The second part is the The Impact of Event Scale – Revised (IES-R). The nurses' post-traumatic stress disorder (PTSD) problems were assessed using the Impact of Event Scale – Revised (IES-R). developed by Weiss, D.S., & Marmar, C.R. (1997). IES-R is a 22-item self-report scale that is rated on a five-point Likert-type scale which ranges from 0 (*not at all*) to 4 (extremely). Non clinical= 0 – 22, Low= 22.1 – 44, Moderate= 44.1 – 66, High= 66.1 – 88. Participants' responses are averaged together to generate a mean score.

**Statistical analysis**

To ascertain whether or not the study's objectives were met, the present study's data were analyzed using the Spearman correlation coefficient, Frequencies & Percentages, Means, Standard deviations.

**Results**

This section represents data analysis of variables under the study to achieve the objectives of the study that are related to assess the level of post- traumatic stress among recovered nurses.

**Table (1): Distribution of Sample according to their Socio-demographic Characteristics**

| List | Characteristics | | f | % |
|---|---|---|---|---|
| 1 | **NO. of covid-19 infections** | One time | 57 | 56.4 |
| | | Two times | 44 | 43.6 |
| | | ***Total*** | ***101*** | ***100*** |
| 2 | **Age M±SD= 31±4** | 26 – 30 year | 48 | 47.5 |
| | | 31 – 35 year | 33 | 32.7 |
| | | 36 ≤ year | 20 | 19.8 |
| | | ***Total*** | ***101*** | ***100*** |
| 3 | **Gender** | Male | 55 | 54.5 |

| | | | | |
|---|---|---|---|---|
| | | Female | 46 | 45.5 |
| | | ***Total*** | ***101*** | ***100*** |
| 4 | **Years of experience M±SD= 8±3** | 1 – 5 years | 33 | 32.7 |
| | | 6 – 10 years | 38 | 37.6 |
| | | 11 – 15 years | 30 | 29.7 |
| | | ***Total*** | ***101*** | ***100*** |
| 5 | **Socioeconomic status** | Insufficient | 26 | 25.7 |
| | | Barely sufficient | 40 | 39.6 |
| | | Sufficient | 35 | 34.7 |
| | | ***Total*** | ***101*** | ***100*** |
| 6 | **Marital status** | Unmarried | 40 | 39.6 |
| | | Married | 61 | 60.4 |
| | | ***Total*** | ***101*** | ***100*** |

f: Frequency, %: Percentage, M: Mean, SD: Standard deviation

This table shows that 56.4 percent of the sample was infected once with covid-19.

The average age for the sample refers to 31±4 years and the highest percentage refers to 26 – 30 years among 47.5%. The gender refers that 54.5% of the sample are males while remaining are females. The years of experience refers that 37.6% of the sample have 6-10 years of experience. The socioeconomic status refers that 39.6% of the sample reported barely sufficient status. The marital status refers that 39.6% of the sample are unmarried and 60.4% are married.

**Table (2): Level of Post-traumatic Stress among Nurses**

| **Levels** | **f** | **%** | **M.S** | **SD** |
|---|---|---|---|---|
| **Non clinical** | 33 | 32.7 | | |
| **Low** | 45 | 44.6 | | |
| **Moderate** | 23 | 22.8 | **32.356** | 17.106 |
| **High** | 0 | 0 | | |
| **Total** | 101 | 100 | | |

f: Frequency, %: Percentage, M.S: Mean of score, SD: Standard deviation
Non clinical= 0 – 22, Low= 22.1 – 44, Moderate= 44.1 – 66, High= 66.1 – 88

This table indicates that 44.6% of nurses perceive low levels of post-traumatic stress and 22.8% perceive moderate levels. While the study of Lu, M. Y., Ahorsu, D. K., Kukreti, S., Strong, C., Lin, Y. H., Kuo, Y. J., Chen, Y. P., Lin, C. Y., Chen, P. L., Ko, N. Y., & Ko, W. C. (2021). Found that 15.4% of the total sample have PTSD symptoms.

**Table (3): Correlation between Post-traumatic Stress among nurses with their Socio demographic Characteristics**

| Post-traumatic Stress / Characteristics | Spearman correlation | P-value | Significance |
|---|---|---|---|
| Age | -0.005 | 0.962 | N.S |
| Gender | 0.078 | 0.437 | N.S |
| Socioeconomic status | -0.241 | 0.015 | S |
| Marital status | -0.08 | 0.939 | N.S |
| Years of experience | -0.026 | 0.223 | N.S |
| NO. of covid-19 infections | -0.182 | 0.069 | N.S |

This table indicates that there is significant negative relationship between PTSD symptoms among nurses and their socioeconomic status at p-value= 0.015. This result is consistent with the study of Ayazi, T., Lien, L., Eide, A.H. et al. (2012). Who found that lower socioeconomic status was significantly associated with having PTSD. This table also indicates that there is no relationship between socio-demographic characteristics of the nurses and PTSD.

## Discussion

The study's findings provide insight into the frequency of post-traumatic stress disorder in nurses, showing that a sizable fraction of the population experiences mild (44 percent) and

moderate (22 percent) degrees of stress. These results highlight the significance of addressing mental health issues in the nursing field and the demand for resources and supportive interventions. Our understanding of the factors influencing mental health in this crucial healthcare profession is made more complex by the significant relationship between socioeconomic status and perceived stress among nurses.

Also the study findings are consistent with recent research showing nurses, especially those who worked during the pandemic, had significant mental health problems including PTSD Recent studies found pandemic demands increased stress disorder risk among healthcare workers, with factors like workload, fear of infection and lack of resources contributing to mental health problems ( Labrague & De Los Santos, 2021) The emergence of mild to moderate PTSD symptoms among nurses is consistent with broader trends in the field and highlights the need for targeted mental health interventions.

The outcome confirms and broadens the conclusions of research like the one done by Adriaenssens, J., de Gucht, V., & Maes, S. (2012), which emphasized how socioeconomic factors affect the mental health of nurses. Comprehending the interplay between stress and socioeconomic status is imperative in order to devise focused interventions that tackle the distinct obstacles encountered by nurses from varied backgrounds. Socioeconomic considerations is a factor that influence nurses' mental health. Research indicates that nurses from lower socioeconomic backgrounds may experience higher levels of stress due to work-family conflict, a lack of mental health facilities, and irregular pay (Chiu et al., 2020). This highlights the importance of tackling socioeconomic inequalities as part of supporting the mental health of healthcare workers. In addition, studies such as Hu et al (2020)

confirm the negative impact of socio-economic stressors on nurses' mental well-being and highlight the need for support systems that take into account these economic variables.

Furthermore, the results of this study highlight how urgent it is to put strategies in place to reduce stress levels among nurses, especially those who are dealing with socioeconomic difficulties. Workplace support programs, mental health resources, and policies that tackle the wider economic factors impacting stress are some examples of interventions.

McVicar's (2003) research lends credence to the notion that coping strategies and organizational support play a critical role in mitigating stress in healthcare workers. Despite the fact that the study offers insightful information, it's critical to acknowledge the complexity of stress in nursing. Further studies, like those conducted by Mealer, M., Jones, J., & Meek, P. (2017), explores the effects of particular stressors on nurses' mental health, such as patient deaths and moral distress. Subsequent research endeavours may investigate the synergistic impact of diverse stressors and socioeconomic variables to cultivate a thorough comprehension of the multifaceted obstacles that nurses encounter.

The management of health care workers' stress also depends on the availability of resources and support concerning mental health in the work environment. There is evidence that supportive interventions, including peer support networks and workshops on coping with stress, reduce levels of stress in health workers. For example, Mueller et al., 2020 emphasized that mechanisms and support from organizations were central components in reducing symptoms of PTSD and stress among health workers. These interventions are really crucial, particularly for nurses from lower

socioeconomic backgrounds, because they endure many stressors that add to the personal and professional challenges.

Apart from social, economic, and workplace support, recent studies have called for policy changes to be instituted that will assist in addressing systemic issues in healthcare settings. Policies that improve job security, equal remuneration, and access to mental health services will decrease the level of stress that nurses undergo and develop a healthy environment to work. Mindfulness practices, like resilience training programs, have thus shown promising outcomes in reducing symptoms of PTSD and supporting mental health in health settings (Chiu et al., 2020).

## Conclusion

This study, in summary, highlights the high prevalence of PTSD among nurses and underlines the complex association of stress with sociodemographic variables in mental wellbeing. Recent studies confirm these results and highlight the need for policies and interventions that take these inter-connected elements into consideration. Strengthening mental health resources, building organizational support, and addressing the social and economic barriers facing nurses are important steps toward making a healthier and resilient health care workforce.

## Reference

1. Lauvrud C, Nonstad K, Palmstierna T. (2009). Occurrence of post traumatic stress symptoms and their relationship to professional quality of life (ProQoL) in nursing staff at a forensic psychiatric security unit: A cross-sectional study Health and Quality of Life Outcomes. 7:1–6. doi: 10.1186/1477-7525-7-31.

2. Czaja A. S, Moss M, Mealer M. (2012). Symptoms of posttraumatic stress disorder among pediatric acute care nurses. *Journal of Pediatric Nursing.* 27:357–365. doi: 10.1016/j.pedn.2011.04.024.

3. Lu, M. Y., Ahorsu, D. K., Kukreti, S., Strong, C., Lin, Y. H., Kuo, Y. J., Chen, Y. P., Lin, C. Y., Chen, P. L., Ko, N. Y., & Ko, W. C. (2021). The Prevalence of Post-traumatic Stress Disorder Symptoms, Sleep Problems, and Psychological Distress Among COVID-19 Frontline Healthcare Workers in Taiwan. Frontiers in psychiatry, 12, 705657. https://doi.org/10.3389/fpsyt.2021.705657

4. Fjeldheim C. B., Nöthling J., Pretorius K., Basson M. (2014). Trauma exposure, posttraumatic stress disorder and the effect of explanatory variables in paramedic trainees. *BMC Emergency Medicine.* 14:11.

5. Xiao H, Zhang Y, Kong D, Li S, Yang N. (2020). The Effects of Social Support on Sleep Quality of Medical Staff Treating Patients with Coronavirus Disease 2019 (COVID-19) in January and February 2020 in China. *Med Sci Monit.*

6. Ayazi, T., Lien, L., Eide, A.H. et al. (2012). What are the risk factors for the comorbidity of posttraumatic stress disorder and depression in a war-affected population? a cross-sectional community study in South Sudan. BMC Psychiatry 12, 175 https://doi.org/10.1186/1471-244X-12-175

7. Wendy Z., Emily S., Derek T., (2022).Cynthia B. Posttraumatic Stress Disorder in Nurses During a Pandemic, JONA: The Journal of Nursing Administration, 10.1097/NNA.0000000000001112, 52, 2, (E3-E8),

8. Hillewi C., Lena W. G., Karin S., Petra Von H. W. (2022). Battling extraordinary situations and conflicting emotions—A qualitative study of being a newly graduated Registered Nurse in the emergency department during the COVID-19 pandemic, Nursing Open, 10.1002/nop2.1250, 9, 5, (2370-2380),

9. Adriaenssens, J., de Gucht, V., & Maes, S. (2012). The impact of traumatic events on emergency room nurses: findings from a questionnaire survey. International journal of nursing studies, 49(11), 1411–1422. https://doi.org/10.1016/j.ijnurstu.2012.07.003

10. McVicar, A. (2003), Workplace stress in nursing: a literature review. Journal of Advanced Nursing, 44: 633-642. https://doi.org/10.1046/j.0309-2402.2003.02853.x

11. Mealer, M., Jones, J., & Meek, P. (2017). Factors Affecting Resilience and Development of Posttraumatic Stress Disorder in Critical Care Nurses. American journal of critical care : an official publication, American Association of Critical-Care Nurses, 26(3), 184–192. https://doi.org/10.4037/ajcc2017798

12. Chew, N., Chia, F., Ng, W. K., Lee, W., Tan, P. L. L., Wong, C. S., ... & Sharma, V. K. (2020). "Perceived stress, coping strategies, and resilience among healthcare workers during the COVID-19 pandemic." Clinical Medicine, 20(6), e123-e127.

13. González-Gil, M. T., González-Blázquez, C., Parro-Moreno, A. I., Pedraz-Marcos, A., Palmar-Santos, A., Otero-García, L., ... & Martínez-Marcos, M. (2021). "Nurses' perceptions and demands regarding COVID-19 care delivery in critical care units and hospital emergency services." Intensive and Critical Care Nursing, 62, 102966.

14. Hu, D., Kong, Y., Li, W., Han, Q., Zhang, X., Zhu, L., ... & Zhu, J. (2020). "Frontline nurses' burnout, anxiety, depression, and fear statuses and their associated factors during the COVID-19 outbreak in Wuhan, China: A large-scale cross-sectional study." EClinicalMedicine, 24, 100424.

15. Labrague, L. J., & De Los Santos, J. A. A. (2021). "Fear of COVID-19, psychological distress, work satisfaction, and turnover intention among frontline nurses." Journal of Nursing Management, 29(3), 395-403.

16. Mo, Y., Deng, L., Zhang, L., Lang, Q., Liao, C., Wang, N., ... & Huang, H. (2020). "Work stress among Chinese nurses to support Wuhan in fighting against COVID-19 epidemic." Journal of Nursing Management, 28(5), 1002-1009.

17. Muller, A. E., Hafstad, E. V., Himmels, J. P. W., Smedslund, G., Flottorp, S., Stensland, S. Ø., ... & Vist, G. E. (2020). "The mental health impact of the covid-19 pandemic on healthcare workers, and interventions to help them: A rapid systematic review." Psychiatry Research, 293, 113441.

18. Pradas-Hernández, L., Ariza, T., Gómez-Urquiza, J. L., Albendín-García, L., Fuente, E. I., & Cañadas-De la Fuente, G. A. (2021). "Prevalence of burnout in paediatric nurses: A systematic review and meta-analysis." PLoS ONE, 16(4), e0247062.

19. Shah, M. K., Gandrakota, N., Cimiotti, J. P., Ghose, N., Moore, M., & Ali, M. K. (2021). "Prevalence of and factors associated with nurse burnout in the United States." JAMA Network Open, 4(2), e2036469.

21. Spoorthy, M. S., Pratapa, S. K., & Mahant, S. (2020). "Mental health problems faced by healthcare workers due to the COVID-19 pandemic–A review." Asian Journal of Psychiatry, 51, 102119.

21. Sun, N., Wei, L., Shi, S., Jiao, D., Song, R., Ma, L., ... & Wang, H. (2020). "A qualitative study on the psychological experience of caregivers of COVID-19 patients." American Journal of Infection Control, 48(6), 592-598.