

# Psychological Stress on Nursing Community in the Face of the COVID-19 Pandemic

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## Abstract

Healthcare became priority due to COVID-19 pandemic. The role of healthcare workers like nurses in serving COVID-19 patients is exuberant. They have direct contact with COVID-19 patients and must spend longer hours in and around the patients. The way nurses rendered services under extreme lockdown conditions is quite palpable. They do have lot of stress in discharging duties during the pandemic. This paper addresses the challenges and issues of nurses serving COVID-19 patients and provides measures to overcome stress during the pandemic. The study is empirical and descriptive in nature. Afraid of viral infection, longer shifts, heavy workload, inadequate PPE, social stigma, maintaining social distance with loved ones of family members, relatives, and friends, lack of appreciation and recognition from the doctors, helplessness towards colleagues, and lack of awareness of safety protocols among COVID-19 positive patients caused psychological stress among nurses. They have adapted a coping mechanism with belief in God.

**Keywords:** corona virus, mental health, psychological stress, social support, treatment

## 1. Introduction

The outbreak of COVID-19 during early 2020 has created devastation to the world economies. Despite government's continuous measures to recoup the situation the loss of money, material, machinery, and men baffle the economies of affluent and poor nations. Many people lost their lives while combating the deadly disease. Every family is either directly or indirectly affected by the COVID-19 pandemic. Hospitals filled with COVID-19 patients. Doctors have no time to spare for other patients except COVID-19 patients. Dearth in oxygen has taken away the lives of many people at hospitals. Now, one should not forget the real saviors of COVID-19 patients with their marvelous services. They are none other than nurses. Nurses are playing vital roles at COVID Care Centers to bring back loggerhead patients from panic situation. They took the oath of ready to sacrifice their lives for serving the people who are fighting against the invisible virus COVID-19. Few nurses sacrificed their lives while discharging duties in the pandemic. Why must this segment of nurses' sacrifice when all people are staying at home with a fear of viral spread? What factors are motivating them to spend longer hours in and around the serious COVID-19 patients. The amount stress they are facing while discharging duties and what measures they are taking to come out of the stress under the pandemic panic situation are focal points. To know such realities, a comprehensive study on challenges and issues of nurses in serving COVID-19 patients is quite fascinating.

Previous studies on health care workers might have been done in normal conditions. Whereas the present pandemic is new and health care workers like nurses not well trained to face this kind of situation. Nurses might have used their experience to serve the patients rather than a systematic approach not defined by any government. Treatment of COVID-19 patients is the best example of learning by doing. New methods of treatment by doctors and nurses implemented for treating COVID patients. Now, the challenging questions are: Are the nurses comfortable with personal protective equipment (PPE) kits used for COVID-19 care? Are nurses accessible to give responses for survey questions? Are the problems of nurses addressed by researchers? Therefore, addressing the challenges and issues of the

nurses during the pandemic is a new dimension.

Government of India has addressed issues of nurses and the public health care in the light of COVID-19 devastation. As per an estimate, India needs 4.3 million nurses or midwives to meet WHO norms<sup>16</sup>. Government has increased budget allocation for health research to Rs. 2,663 crores in 2021-22 from Rs. 2,100 crores in previous year<sup>17</sup>. Health care delivery is a team effort, not doctors and nurses alone.

Doctors, nurses, and frontline workers are serving society well during the pandemic. The nursing community is giving a helping hand with their firm services to the patients who are combating the Corona virus. They are not only serving patients at hospitals but also patients at home isolation and government isolation centers. Therefore, the strategies in promoting improvement of the physical strength, mental activity, and life satisfaction of the frontline staff like nurses must initiated.

## 2. Literature Review

COVID-19 pandemic triggered an emotional imbalance among nurses. Psychological health is associated with distress and fear. The stress faced may result in poor service delivery, suicide ideation and post-traumatic stress. These factors influenced the mental health of the nurses. Few nurses are confronting psychological problems linked with quarantine like mental stress and fear (Chidiebere *et al.*, 2020). Long working hours, patient deaths and high infection rate, underprepared health system are the problems of the nurses in the pandemic (Turale *et al.*, 2020).

A study with 180 responses from the nurses under pressure in fight against COVID-19 from Guangxi, China noted that the main factors affecting the stress are working hours per week and anxiety (Mo *et al.*, 2020). Ethical issues like safety, optimum utilization of limited resources, and varying landscape relations with family and patients are the major concern (Shen *et al.*, 2020). A study among 325 registered nurses in Philippines found that anxiety in nurses had a relationship with social support, personal resilience, and organizational support. The nurses with adequate organizational support recorded with less anxiety (Labrague and Santos JAA, 2020; Huang *et al.*, 2020). Hospitals need to provide psychological support and training to nurses (Zerbini *et al.*, 2020). A study conducted among 1205 respondents in nursing care in Hongkong recorded with suboptimal uptake of COVID-19 vaccines (Murat *et al.*, 2021). The side effects and effectiveness had contributed significantly. The health-care providers' intensive work drained significantly and psychologically. For the wellbeing of health-care providers, complete assistance must provide to protect, frequent and rigorous training for nurses necessary to encourage preparedness (Shahrour and Dardas, 2020).

Psychological strain assessed due to uncertainty in future and exposure with Covid patients (Labrague and Santos JAA, 2021). The young nurses have extreme stages of stress, burnout, and slight depression. Preventive and promotional interventions must be implemented to enhance psychological strength and prepare nursing staff for the future (Nowicki *et al.*, 2020). It observed that nurses contracted acute stress disorder (ASD) and successive mental stress. Among 448 nurses in Jordan, 64% were experiencing ASD and 41% with mental stress. stress-reduction strategies for nurses, personal safety can result in mental well-being (Hofmeyer and Taylor, 2021). Factors such as realization of physiological needs, community support, transparency in discharging duties, malleable work timings and the application of social-emotional and mental support are imperative for normalization of strong emotions and stress (Salopek *et al.*, 2020).

The panic situation of nurses would be addressed by imparting peer training and social support during pandemic (Soto-Rubio *et al.*, 2020). Supply of quality PPE kits, skill enhancement of nurses subject to safety and security, and effective treatment towards Covid patients ensure adequate soothing personal care plans (Cai *et al.*, 2020). Ensuring and monitoring the psychological wellbeing of Corona virus treatment team is important for comprehensive wellbeing. It is essential to impart stress management education to the privileged nursing community during the pandemic. The main mode of transmission of this virus among nurses is close contact with COVID patients. Therefore, constructive emotional intrusion is mandatory to bail out nursing problems. Stringent contamination management regulations, specific apparatus, appreciation of endeavors by clinical administration as well as government, and decline in registered cases boost morale and mental health among nurses.

### 3. Conceptual Framework

The framework has developed as per available knowledge base across the world. Variables affecting stress identified and the association between independent, moderate, and dependent variables shown in Fig. 1.

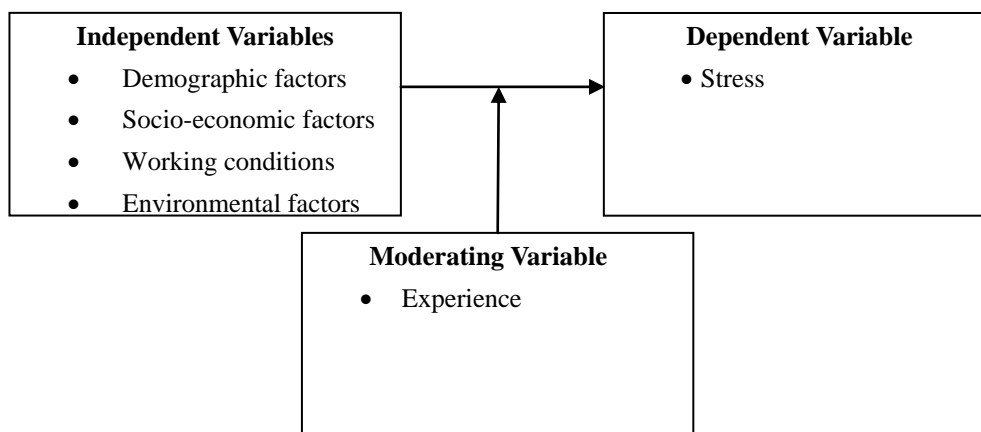


Figure 1. Moderation model

The dependent variable stress is the result of independent variables such as demographic factors, socio-economic factors, working conditions, environmental factors, and health conditions. The sub-variables of demographic factors are age, gender, marital status, residence, and family size. Educational status, income level and job position are sub-variables of socio-economic factors. Working conditions are associated with hospital type, duty hours, sleep disturbances, provision of PPE kits, provision of isolation, working area, and staff quarantine. Availability of food and vegetable supplies, lockdown, and distance from family and friends are sub-variables representing environmental factors. Similarly, the number of years of experience of the nurse in serving the patients was taken as moderating variable for the study. The intensity of stress among the nurses may vary based on their experience.

### 4. Objectives of the Study

1. To study the factors influencing the nurses' working conditions at COVID Care Centers during pandemic with reference to Guntur district of Andhra Pradesh.
2. To examine the reasons for physiological and psychological stress among nurses while serving COVID-19 patients.
3. To design appropriate strategies to overcome stress among the nurses during the pandemic.

### 5. Methodology

#### 5.1 Research Design

The study is empirical and descriptive in nature. The universe of the study involves government and private hospitals that are listed as Category I, II, and III Dedicated COVID Hospitals as per Government of Andhra Pradesh in Guntur district. There are 59 COVID Care Centers identified by the Government of Andhra Pradesh in Guntur district. These Centers are classified into Category I – Dedicated COVID Hospital; Category II – COVID Health Care Centers; and Category III – COVID Care Center. The number of hospitals that come under Categories I, II, and III are 2, 6, and 51, respectively. These hospitals are in Narasaraopet, Tenali, and Guntur towns. All the nurses working in government approved COVID Care Centers in Guntur district of Andhra Pradesh considered as sampling unit. Stratified random

sampling method is employed in the study.

### 5.2 Sample Size

The size of the sampling is eight hundred nurses working at COVID Care Centers of all three categories. Thus, 10% of sample from two hospitals of Category I, 30% sample from six hospitals of Category II and, 60% sample from fifty-one hospitals of Category III considered for the study.

### 5.3 Questionnaire Design

A structured questionnaire administered among the sampling population in the scheduled intervals through survey method. The questionnaire printed in English and administered by the interviewer personally. Questionnaire includes both open-ended and closed-end questions. The Likert five-point scale is used for the statements. Initially, a pilot study was organized among one hundred respondents and the questions improved accordingly. The first section of the questionnaire represents the demographic profile of the respondent that includes gender, age, education, family size, and annual household income. The second section includes questions regarding socio-economic factors, work related factors, and factors relating to physiological and psychological balance of nurses. The Third section contains questions over the impact of stress and stress management measures taken by nurses.

### 5.4 Data Collection

The data collected from both primary and secondary sources. The questionnaire was administered through a personal interview method among eight hundred nurses and responses recorded accordingly. Secondary data gathered from various sources like periodic government reports, journals, white papers, newspapers, and handbooks. Reliability and internal consistency evaluated with Cronbach's alpha. The alpha found at 0.8496 ensures good reliability of the scale.

## 6. Results and Discussion

It found that hospitals are facing shortage of frontline workers like nurses. Nurses are afraid in the first wave of COVID-19 and hesitant to attend regular duties. Then the available nurses, especially the early age group, were forced to work longer shifts of 16-17 hours per day during the pandemic to meet the medical emergency. There is no extra incentive for longer shifts. Factors such as heavy workload, high infection rate, bushfire like disease spreading, and un-even work life balance caused physical and psychological stress among nurses. Low-quality and inadequate PPE is another cause of stress among nurses. Despite the government's instruction that every hospital should be supplied with adequate number of PPE, the ground reality is different. The government's free treatment cost for infected healthcare workers and ensured isolation room for healthcare workers away in practice. Insufficient and irregular supply of PPEs led to buy PPEs with their own costs to safeguard from Corona virus at workplace. However, over the period, a constant quantity of quality PPEs ensure nurses efficient protection from vulnerable situations. Social humiliation is a different problem for nurses during the pandemic. Neighbors avoided communication and perceived nuisance out of fear of infection. They are under the perception that nurses carry high threat of virus due to direct contact with patients. House owners evicted them if they evaluated them positively. Social distance turns out to be vicious. Nurses who have children are psychologically stressed to keep social distance with their kins and kids due to contamination of corona virus. Relatives refrained from visiting their houses. Parents bargained to stay home. They spurned from the public and managed ruthlessly. Mental health problems are another cause of concern. All these conditions of socially low acceptance created psychological disturbance.

Nurses are trained to act steadily in medical emergencies. Despite self-control over mind, nurses must cope up with psychological challenges such as depression, anxiety, insomnia, death panic of in pandemic. Their compassion towards family members as infected by them triggered more psychological pressure. Besides, a lack of appreciation and recognition by the doctors and a feeling of helplessness towards colleagues caused psychological pressure. They are frustrated by lacking fundamental facilities like food provision and break timings between work shifts. Lack of awareness about safety precautions among COVID-19 affected patients caused healthcare professionals to be infected with virus. Lack of training to tackle the virus outbreak situation put nursing community in vacuum. Wearing PPE kits for longer hours became a crucial challenge for nurses resulting in less intake of drinking water which in turn affected immunity. Under these conditions they have adapted a coping mechanism with belief in God, support from family and friends, soothing conversation with a peer group, kind treatment to each other, concern for well-being of humanity to bail out the vacuum during the pandemic.

## 7. Conclusion

The outbreak of COVID-19 created unprecedented challenges and lessons to people of the globe. People praise only doctors in their contribution of saving lives while healthcare professionals like nurses are often ignored, undervalued, and underpaid in the healthcare sector. Nurses play a vital role in saving lives with their altruistic services. They too have faced drastic challenges in the pandemic. Insufficient medical staff and equipment, increased workload with longer shifts, social exclusion, fear of being infected, shortage of PPE kits, and mismanagement are challenges which put nurses in adversity with physical and psychological stress. Monetary and non-monetary incentives such as economic support, word of appreciation and work recognition, safe and adequate PPEs, and appropriate workload would motivate nurses to contribute more during the pandemic.

## References

- Cai, H., Tu, B., Ma, J., Chen, L., Fu, L., Jiang, Y., & Zhuang, Q. (2020). Psychological impact and coping strategies of frontline medical staff in Hunan between January and March 2020 during the outbreak of coronavirus disease 2019 (COVID-19) in Hubei, China. *Medical Science Monitor*, 26, e924171. <https://doi.org/10.12659/MSM.924171>
- Chidiebere Okechukwu, E., Tibaldi, L., & La Torre, G. (2020). The impact of COVID-19 pandemic on mental health of nurses. *Clinical Therapeutics*, 171(5), e399-e400. <https://doi.org/10.7417/CT.2020.2247>
- Hofmeyer, A., & Taylor, R. (2021). Strategies and resources for nurse leaders to use to lead with empathy and prudence so they understand and address sources of anxiety among nurses practising in the era of COVID-19. *Journal of Clinical Nursing*, 30(1-2), 298-305. <https://doi.org/10.1111/jocn.15520>
- Huang, L., Lei, W., Xu, F., Liu, H., & Yu, L. (2020). Emotional responses and coping strategies in nurses and nursing students during the COVID-19 outbreak: A comparative study. *PLoS One*, 15(8), e0237303. <https://doi.org/10.1371/journal.pone.0237303>
- Labrague, L. J., & De Los Santos, J. A. A. (2020). COVID-19 anxiety among front-line nurses: Predictive role of organisational support, personal resilience, and social support. *Journal of Nursing Management*, 28(7), 1653-1661. <https://doi.org/10.1111/jonm.13121>
- 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. <https://doi.org/10.1111/jonm.13168>
- Mo, Y., Deng, L., Zhang, L., Lang, Q., Liao, C., Wang, N., Qin, M., & Huang, H. (2020). Work stress among Chinese nurses to support Wuhan in fighting against the COVID-19 epidemic. *Journal of Nursing Management*, 28(5), 1002-1009. <https://doi.org/10.1111/jonm.13014>
- Murat, M., Köse, S., & Savaşer, S. (2021). Determination of stress, depression, and burnout levels of front-line nurses during the COVID-19 pandemic. *International Journal of Mental Health Nursing*, 30(2), 533-543. <https://doi.org/10.1111/inm.12818>
- Nowicki, G. J., Ślusarska, B., Tucholska, K., Naylor, K., Chrzan-Rodak, A., & Niedorys, B. (2020). The severity of traumatic stress associated with the COVID-19 pandemic, perception of support, sense of security, and sense of meaning in life among nurses: Research protocol and preliminary results from Poland. *International Journal of Environmental Research and Public Health*, 17(18), 6491. <https://doi.org/10.3390/ijerph17186491>
- Salopek-Žiha, D., Hlavati, M., Gvozdanović, Z., Gašić, M., Placento, H., Jakić, H., Klapan, D., & Šimić, H. (2020). Differences in distress and coping with the COVID-19 stressor in nurses and physicians. *Psychiatr Danub*, 32(2), 287-293. <https://doi.org/10.24869/psyd.2020.287>
- Shahrour, G., & Dardas, L. A. (2020). Acute stress disorder, coping self-efficacy and subsequent psychological distress among nurses amid COVID-19. *Journal of Nursing Management*, 28(7), 1686-1695. <https://doi.org/10.1111/jonm.13124>
- Shen, X., Zou, X., Zhong, X., Yan, J., & Li, L. (2020). Psychological stress of ICU nurses in the time of COVID-19. *Journal of Critical Care*, 24(1), 200. <https://doi.org/10.1186/s13054-020-02926-2>

- Soto-Rubio, A., Giménez-Espert, M. D. C., & Prado-Gascó, V. (2020). Effect of emotional intelligence and psychosocial risks on burnout, job satisfaction, and nurses' health during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, 17(21), 7998. <https://doi.org/10.3390/ijerph17217998>
- Turale, S., Meechamnan, C., & Kunaviktikul, W. (2020). Challenging times: Ethics, nursing, and the COVID-19 pandemic. *International Nursing Review*, 67(2), 164-167. <https://doi.org/10.1111/inr.12598>
- Zerbini, G., Ebigbo, A., Reicherts, P., Kunz, M., & Messman, H. (2020). Psychosocial burden of healthcare professionals in times of COVID-19 - a survey conducted at the University Hospital Augsburg. *German Medical Science*, 18, Doc05. <https://doi.org/10.3205/000281>

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### **Authors contributions**

Dr. Savanam Chandra Sekhar was responsible for study design and revising. Garlapati Karthik and Panthagani Jitin Sai were responsible for data collection. Puli Raga Malika drafted the manuscript and Aketi Harika revised it. All authors read and approved the final manuscript.

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No additional data is available.

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