



Challenges and Issues of Nurses in Serving COVID-19 Patients: A Study with Reference to Guntur District of Andhra Pradesh

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Health care became priority due to COVID-19 pandemic. Despite governments have taken utmost preventive and safeguarding measures, many people lost their lives due to disorganized medical care system in India. The role of nurses in serving the severe COVID patients is exuberant. Nurses have direct contact with COVID 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. The aim of this paper is to address the challenges and issues of nurses while serving COVID-19 patients and to provide appropriate measures to overcome challenges during the pandemic. The study is empirical and descriptive in nature. Shortage of nurses, 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 by the doctors, helplessness towards colleagues, and lack of awareness of safety protocols among COVID-19 positive patients caused physical and psychological stress among nurses. 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 situation during the pandemic. Outbreak of

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COVID-19 created unprecedented challenges and lessons to people of the globe. People praise only doctors in contribution of saving lives while healthcare professionals like nurses often are ignored, undervalued, and underpaid in healthcare sector. Nurses play 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 some 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. Public health emergency must put in practice to ensure quality healthcare services.

Keywords: COVID-19; healthcare; pandemic; scarcity; stress; 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 either directly or indirectly affected with COVID-19 pandemic. Hospitals filled with COVID patients. Doctors have no time to spare for other patients except COVID patients. Dearth in oxygen has taken away lives of many people at hospitals. At this juncture, one should not forget the real saviors of COVID patients with their marvelous services. They are none other than nurses.

Nurses are playing vital role at COVID Care Centers to bring back the loggerhead patients from panic situation. They took the oath of ready to sacrifice their lives for serving the people who are fighting against invisible virus COVID-19. Some 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 long hours in and around the serious COVID patients. How much stress they are facing while discharging duties? What measures they are taking to come out of the stress under the pandemic panic situation. To know the realities behind such queries, a comprehensive study on challenges and issues of nurses in serving COVID patients is quite fascinating.

Previous studies on health care workers might have done in normal conditions. Whereas the present pandemic is rather new and health care workers like nurses are not well trained to face this kind of situation. Nurses might have used

their experience to serve the patients rather than a systematic approach which is not defined by any government. Perhaps, treatment of COVID patients is best example of learning by doing. New methods of treatment by doctors and nurses are being implemented to treat COVID patients. At this point in time, the challenging questions are: Are the nurses comfortable with personal protective equipment (PPE) kits used for COVID care? Are the nurses accessible to give responses for survey questions? Are the problems of nurses addressed by researchers? Therefore, addressing real challenges and issues of the nurses during the pandemic is a new dimension.

Government of India has addressed some issues of nurses and the public health care in the light of COVID-19 devastation. Ministry of Health and Family Welfare, Government of India formulated a National Policy for Treatment of Rare Diseases (NPTRD) and placed in the public domain on 13.1.2020 inviting comments/views from all the stakeholders, general public, organizations and States/UTs. As per an estimate, India needs 4.3 million nurses or midwives to meet WHO norms. Government has increased budget allocation for health research to Rs. 2,663 crore in 2021-22 from Rs. 2,100 crore in previous year. Health care delivery is a team effort, not doctors and nurses alone.

Doctors, nurses, and frontline workers are serving the society well during the pandemic. The nursing community is giving a helping hand with their firm services to the patients who are combating with 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 who have direct contact with COVID

patients are to be initiated at interest of the nurses in turn general public as a whole.

2. LITERATURE REVIEW

COVID-19 pandemic triggered the mental health among nurses. The psychological health is associated with distress and fear. The stress faced may results into poor service delivery, suicide ideation and post-traumatic stress. The problems can have severely affected the psychological health of nurses. Numerous nurses have been facing mental complications associated with quarantine such as psychological distress and fear [1]. Long working hours, patient deaths and high infection rate, underprepared health system are the problems of the nurses in the pandemic [2].

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 [3]. The ethical issues like safety, allocation of scarce resources and changing nature of relationships with patients and families are the major concern [4]. 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 were recorded with less anxiety [5,6]. Hospitals need to provide psychological support and training to nurses. A study was conducted among 1205 respondents in nursing care in Hongkong recorded with suboptimal uptake of COVID-19 vaccines [8]. The side effects and effectiveness had contributed significantly. The health-care providers' intensive work drained physically and emotionally. Health-care providers showed their spirit of professional dedication resilience to overcome difficulties. For wellbeing of health-care providers, a comprehensive support should be provided to safeguard, regular and intensive training for all health-care providers need to promote preparedness [9].

Psychological strain is assessed due to uncertainty in future due to higher workload and longer time in direct contact with COVID-19 patients [10]. The nurses who are younger and

had fewer years of work experience had high levels of stress, burnout, and moderate depression. Preventive and promotion interventions should be planned and implemented to improve the mental health and prepare the nursing staff for the future [11]. Acute stress disorder (ASD) and subsequent psychological distress was observed in particularly nurses. A total of 448 Jordanian nurses were experiencing ASD (64%) and 41% with psychological distress. stress-reduction strategies for nurses, personal safety can result in mental well being [12]. The fulfillment of basic needs, social support, clear communication and distribution of tasks, flexible working hours and the utilization of psychosocial and psychological help seems to be important for normalization of strong emotions and stress [13].

Provision of training related to COVID-19 peer and social support can address their fear of COVID-19 [14]. PPE supply, upskill nurses need to provide safe, quality care for patients with COVID-19 and ensure adequate restorative self-care plans [15,16]. Ensuring and monitoring the mental health of Corona virus care staff is crucial for global health. The education of medical staff in the field of stress management had a relationship with the COVID-19 pandemic [17]. The main mode of transmission is working at a close distance and having intimate contact with infected cases. Positive psychological intervention is required. Strict infection control guidelines, specialized equipment, recognition of their efforts by hospital management and the government, and reduction in reported cases of COVID-19 provided psychological benefit. Continued acknowledgment of the medical staff by hospital management and the government, provision of infection control guidelines, specialized equipment, and facilities for the management of COVID-19 may boost the morale of nurses.

3. CONCEPTUAL FRAMEWORK

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

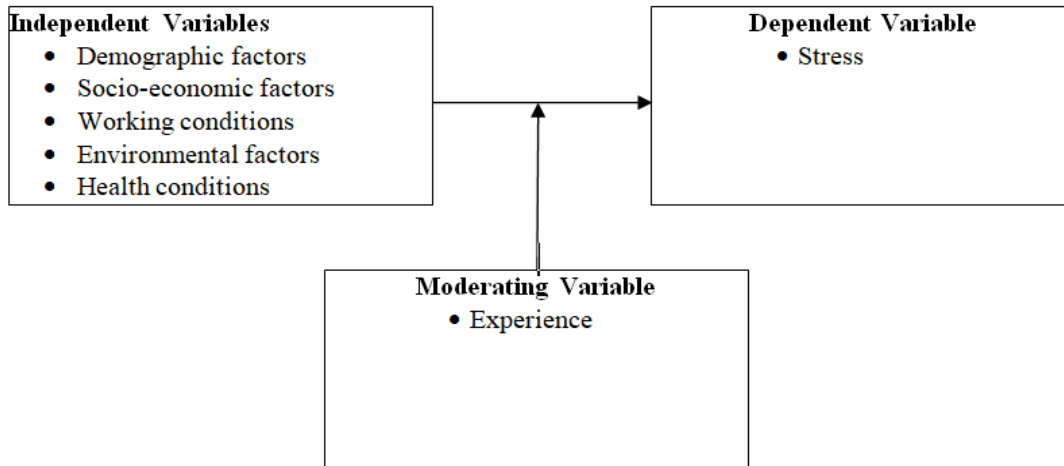


Fig. 1. Moderation model diagram

The moderation model diagram is shown in Fig. 1. Stress is a dependent variable that is influenced by various independent variables such as demographic factors, socio-economic factors, working conditions, environmental factors, experience, and health conditions. The sub-variables of demographic factors taken into consideration for the study 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 considered as sub-variables. Availability of food and vegetable supplies, lockdown, and distance from family and friends are other sub-variables representing environmental factors. Similarly, number of years of experience of the nurse in serving the patients is 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

- To study the factors influencing the nurses' working conditions at COVID Care Centers during pandemic in Guntur district of Andhra Pradesh.
- To examine the reasons for physiological and psychological stress among nurses while serving COVID patients.
- 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 come under Categories I, II, and III are 2, 6, and 51 respectively. These hospitals are in Narasaraopet, Tenali, and Guntur towns. The population of the study involves all the nurses working in government approved COVID Care Centers. The sampling unit is Guntur district of Andhra Pradesh. Stratified random sampling technique is used for the study.

5.2 Sample Size

The sample size for the study is 800 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 51 hospitals of Category III is considered for the study.

5.3 Questionnaire Design

A structured questionnaire was administered to collect data from the sample in the scheduled

intervals through survey method. The questionnaire is printed in English and administered by the interviewer personally. Questionnaire includes both open-ended and closed-end questions. Besides a completely unstructured open-ended question, several closed-end questions such as dichotomous, multiple choice, Likert scale, rating scale and ranking scale were used in the questionnaire. The Likert five-point scale was used for the statements. Initially, a pilot study was conducted with a sample size of 100 respondents and the questions were improved accordingly. The first section of the questionnaire represents 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 impact of stress and stress management measures taken by nurses.

5.4 Data Collection

The data is collected from both primary and secondary sources. The questionnaire was administered through personal interview method among 800 nurses and responses were recorded accordingly. Secondary data was gathered from various sources like periodic government reports, journals, white papers, newspapers, and handbooks. Cronbach's alpha is used to evaluate the internal consistency and reliability. The alpha value was found at 0.8496 which ensures good reliability of the scale.

6. RESULTS AND DISCUSSION

It is found that many hospitals are facing shortage of frontline workers like nurses. During the first wave of COVID-19, nurses were afraid of viral infection and reluctant to attend regular duties. Then the available nurses especially young 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 government's instruction that every hospital should be supplied with adequate number of PPE, but the ground reality is different. 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 expenses to ensure personal safety during work. However, over the period, a steady supply of good quality PPEs made nurses efficient protection from vulnerable situation. Social stigma is another challenge for nurses during the pandemic. Neighbors avoided communication and perceived nuisance out of fear of infection. They are under perception that nurses carry high risk of infection from their exposure to patients. House owners evicted them if they are tested positive. Maintenance of social distance became rather vicious. Nurses who have children are emotionally distressed to maintain distance with their loved ones due to higher risk of being infected by corona virus. Relatives refrained from visiting their houses. Parents bargained to stay home. They shunned from society and treated harshly. Mental health problem is another cause of concern. All these conditions of socially low acceptance created psychological disturbance.

Nurses are being trained to act steadily in medical emergency. Despite self-control over mind, nurses must cope up with several psychological challenges such as depression, anxiety, insomnia, fear of sudden death during the pandemic. They are more concerned about their family members as being infected rather than themselves being infected, leading to further mental stress. Besides, lack of enough appreciation and recognition by the doctors and a feeling of helplessness towards colleagues caused psychological pressure. They are frustrated by being deprived of basic amenities like break between work shifts or provision of meals. Lack of awareness of safety protocols among COVID-19 positive patients caused many healthcare professionals 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

Outbreak of COVID-19 created unprecedented challenges and lessons to people of the globe.

People praise only doctors in contribution of saving lives while healthcare professionals like nurses often are ignored, undervalued, and underpaid in healthcare sector. Nurses play 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 some 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. Public health emergency must put in practice to ensure quality healthcare services.

CONSENT

As per international standard or university standard, patients' written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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