

Research Article

Stress and Coping Strategies Adopted by Nurses During COVID-19 Pandemic

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A B S T R A C T

Introduction: COVID 19 a global pandemic, over 30 million cases have been found in India (2020), with mortality of more than 4 lakhs. Studies revealed that more than 300000 health workers had been infected in this outbreak & had a grave impact on the physical and psychological health. Nursing staff have been the pillar of healthcare system during this pandemic despite of long working hours in PPE kit, fear of getting infected and staying away from near ones. The burden of mental distress revealed prevalence of depression (8.5%), anxiety (20.6%) and stress (6.3%). Hence it becomes essential to explore stress and coping among Nurses, for preparing strategic planning in future waves of Corona Virus.

Materials & Methods: Following ethical clearance data was collected using perceived stress scale & COPE inventory from 50 participants selected using non probability purposive sampling. Nurses who have worked in covid setup aged ≥ 25 years & willing to participate were approached for the study. A non-experimental cross sectional descriptive research design was adopted for data collection.

Results: Moderate level of stress was found in more than 86% of Nurses working in Covid set up and majority of them (86.7%) used coping strategies. The majority of the participants were in the age group 25 - 30 years (48.3%), married (75%), had no children (25%) & had family as support system. Around 38% had 6 -10 years of service (38.3%) & had done COVID ICU duty (81.7%). 31.7% had worked on an average from 21-40 days in Covid set up & 58% of the participants have felt that the provision of day offs was inadequate.

Discussion: Recent studies worldwide revealed that health care workers are positive for burnout, anxiety and depression which is alarming. Emotional and psychological support, incentives, appreciations and prompt identification of any psychiatric conditions may decrease the burden.

Keywords: Stress, Coping Strategies, COVID-19, PSS & COPE Inventory

Introduction

COVID-19 will reshape our world. We don't yet know when the crisis will end. But we can be sure that by the time it does, our world will look very different.

A novel coronavirus (CoV) named '2019-nCoV' or '2019 novel coronavirus' or 'COVID-19' by the World Health Organization (WHO) is in charge of the current outbreak of pneumonia that began at the beginning of December 2019 near in Wuhan City, Hubei Province, China. COVID-19 is a pathogenic virus.

From the phylogenetic analysis carried out with obtainable full genome sequences, bats occur to be the COVID-19 virus reservoir, but the intermediate host (s) has not been detected till now. By driving the ongoing pandemic of coronavirus disease 2019, coronavirus has become a significant change in twenty-first-century medicine, healthcare systems, education and the global economy. As the disease is highly contagious, can be fatal in severe cases and there are no specific medicines, it poses a huge impact on emotional responses and coping strategies of people.

Research has identified to general coping strategies; one is problem focused coping, where the purpose is to solve the problem or take action to the status quo; and the other is emotion focused coping which aims to reduce the emotional distress associated with stressful situations.

Materials & Methods

A descriptive research approach was selected for the present study considering it as the most appropriate approach to assess the stress and coping strategies used by Nurses working in COVID setup in a tertiary care hospital in Lucknow. Survey design was selected since it appeared as a suitable design to accomplish the objectives of the study in the given frame & data was collected from the Nurses.

The target population identified was the Nurses working in COVID setup in a tertiary care centre that fulfilled the inclusive criteria. Accessible population included were the Nurses working in COVID setup in a tertiary care centre in Lucknow during the COVID pandemic crisis.

Non-probability purposive sampling was used in the study. Nurses working in COVID set up ICU triage, COVID ICU, general COVID ward. Nurses working in clinical areas other than COVID setup were excluded. Ethical clearance was taken from IEC and all principles were followed while doing the study.

Results

The majority of the participants were in the age group 25 - 30 years i.e., 29 (48.3%), 14 (23.3%) in the age group 31 - 35 years, 12 (20%) in the age group 36 - 40 years and

5 (8.3%) in the age group 41 - 45 years. The majority of the participants were married i.e., 45 (75%) and 15 (25%) were unmarried. Among the participants, 33 (55%) had no children, 15 (25%) had one child and 12 (20%) had two children. Majority of participants had family support system i.e., 44 (73.3%) and 16 (26.7%) had no family support system. The majority of the participants had 6-10 years of service i.e., 23 (38.3%), 16 (26.7%) had 11-15 years of service, 15 (25%) had 0-5 years of service and 6 (10%) had 16 & above years of service.

The majority of the participants had ICU COVID duty i.e., 49 (81.7%), 7 (11.7%) had COVID veteran ward duty and 4 (6.7%) had COVID ward duty. The majority of the participants had 21-40 days worked in COVID ward i.e., 19 (31.7%), 18 (30%) had 41-60 days worked in COVID ward, 16 (26.7%) had 61 & above days worked in COVID ward and 7 (11.7%) had ≤20 days worked in COVID ward. The majority of the participants had inadequate provision of day offs i.e., 35 (58.3%) and remaining 25 (41.7%) had adequate provision of day offs.

Table 1. Socio-Demographic Data of Patients

	Parameters	No of cases	Percentage (n=60)
Age (Yrs)	25-30	29	48.3
	31-35	14	23.3
	36-40	12	20.0
	41-45	5	8.3
Marital Status	Married	45	75.0
	Unmarried	15	25.0
No of Children	No	33	55.0
	One	15	25.0
	Two	12	20.0
Family Support System	Yes	44	73.3
	No	16	26.7
Years of Service	0-5	15	25.0
	6 -10	23	38.3
	11-15	16	26.7
	16 & above	6	10.0
Area of COVID Duty	ICU	49	81.7
	Veteran ward	7	11.7
	Ward	4	6.7
No of Days Worked in COVID Ward	≤20	7	11.7
	21-40	19	31.7
	41-60	18	30.0
	61 & above	16	26.7

Provision of day offs	Adequate	25	41.7
	Inadequate	35	58.3

Table 2. Assess the Stress Level Among Nurses Working in Covid Setup

The below diagram shows that majority of participants had moderate stress score i.e., 52 (86.7%), 7 (11.7%) participants had severe stress score and 1 (1.7%) had mild stress level.

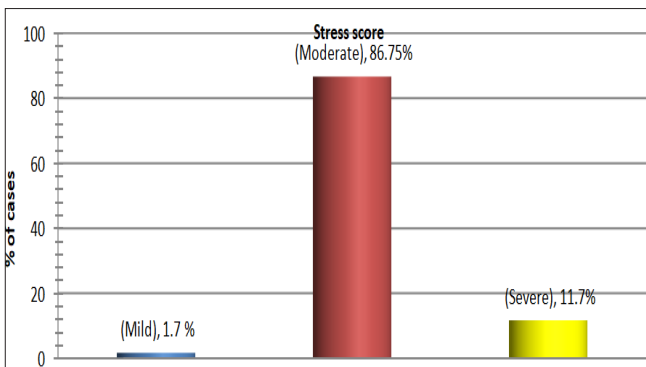


Table 3. Assess the Coping Strategies Score among Nurses Working in Covid Setup

The below diagram shows that majority of participants had moderate coping strategies score i.e., 52 (86.7%), 5 (8.3%) participants had mild coping strategies score and 1 (1.7%) had severe coping strategies score.

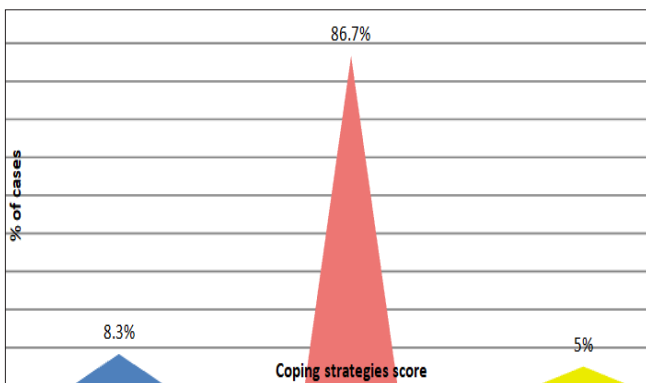


Table 4. Association Between Stress Level and Coping Strategies among Nurses Working in Covid Setup

Stress Level	Coping Strategies Score			Total
	60-120 (Low)	121-180 (Moderate)	180-240 (Significant)	
0-13 (Mild)	0	1	0	1
14-27 (Moderate)	5	46	1	52
28-40 (Severe)	0	5	2	7
Total	5	52	3	60

Chi-square = 9.81, P=0.044

There is significant association between stress score and coping strategies score among Nurses working in COVID setup as $P < 0.05$ i.e., severe stress score had significantly more moderate and severe coping strategies score.

Table 5. Association Between Stress Levels with Family Support System in Study Group

Family Support System	Stress Score			MW Test Z Value	P-Value
	N	Mean	SD		
Yes	44	22.36	4.001	2.16	0.031
No	16	25.31	4.423		

The above table shows that significant difference of stress score according to family support system as $P < 0.05$ i.e., family support system had significantly less stress score than no family support system.

Discussion

COVID 19 has not only had an impact on people emotions, but their coping strategies too have undergone a change. Coping is defined as their thoughts and actions that an individual uses to deal with the stressful events. Stress, anxiety, and depression are some of the key challenges for psychologists, psychiatrists, and behavioural scientists globally.

Among physical and mental illnesses, depression is common mental disorder in the world depression, Nurses and physicians are affected by a variety of stressors in their workplaces because of their responsibility to provide health and treatment to patients, the National Institutes of Health (NIH) said after studying the relative prevalence of health disorders in high-stress occupations. Out of 130 jobs surveyed, nursing is ranked 27th due to mental health problems. Other studies report that 7.4% of Nurses are absent from work each week due to burnout or disability due to stress, which is 80% more than other occupational groups. While research on the effects of the pandemic on Nurses' health and well-being is still sparse, several recent editorials highlight a number of stressful factors that could potentially contribute to mental health problems.

These include fear of infection for one self and one's loved ones, the high rates of disease transmission and fatality, but also fear of the unknown regarding this disease. Levels of work-related stress and the burden of extremely long working hours are recurrent topics that are also reflected in research from China. Nurses are also experiencing higher than normal patient-nurse ratios and many have been deployed to work outside of their specialty disciplines, factors that add to the stress of contagion, shortage of appropriate PPE, and fear of the unknown. Several of the editorials note that Nurses are experiencing levels of patient deaths that are unprecedented, even within a profession

where encountering death and dying is expected. One editorial described this as a virtual “tsunami of death” that combined with work exhaustion can lead to strong feelings of professional failure even among experienced Nurses.

Several media reports corroborate these editorials, including the additional strain of repeatedly informing patients’ family members unable to be with the patient about the death of their loved one. A recent survey examined Nurses’ perceptions of working during the early stages of the pandemic in the U.S. and found that more than 50% of respondents experienced symptoms of depression and anxiety and close to one-third had symptoms of post-traumatic stress disorder. Lack of adequate PPE was a significant risk factor for all three mental health outcomes. While important, it is unlikely that lack of adequate PPE is the only factor, and that other experiences are likely impacting Nurses’ mental health symptoms. A closer analysis of responses in that survey to an open-ended question on stressful situations would help to shed light on circumstances and conditions influencing Nurses’ reactions to working during the pandemic. Qualitative research from previous pandemics emphasized the importance of studying the experiences of frontline Nurses to inform effective workplace and national responses during future health care crises.

Better understanding of current conditions could potentially support organizational and workplace efforts to mitigate the stress and ill-health that Nurses are experiencing during, and in the wake of, the pandemic. Health professionals in the study coped with their distress during the pandemic using a plethora of techniques ranging from psychological, social, and religious/spiritual approaches. Similar findings have been reported in recent studies. For example, respondents practiced positive thinking as a psychological technique to overcome stress. This is hardly surprising since the use of positive thinking in stress management has been well and truly documented. Well-documented patients’ records are valuable for further management and compliance with documentation is essential in the healthcare sector.

Summary and Recommendations

A Cross sectional descriptive study was done on 60 Nurses working in and have worked in COVID ward. The sample were collected by purposive sampling. The tool was developed in English for data collection. It consisted of framing questionnaire with sociodemographic data, perceived stress scale and cope inventory.

The Recommendation Includes Nursing Practice

Nursing personnel render care at different settings in the hospital. An efficient and knowledgeable nurse can provide care to COVID patients, their families during hospital admission, clearing the doubts and after care at

home. Nurses can impart incidental health teaching during their work shifts.

Nursing Education

Nurses act as educator both to her subordinates and clientele. Nursing education should take into consideration the need for giving rise to educator who are possessing vivid knowledge and information on COVID patients. Continuing education programme should also be to be conducted for the Nurses on this topic. Various teaching modules can be prepared for imparting knowledge among the Nurses working in COVID areas of hospital and community.

Nursing Administration

The findings of this study are of particular importance to nursing administration. The nurse administrator can revise policies to improve the current practices pertaining to care of the patient presenting with COVID. The nurse administrator also has a responsibility to provide the Nurses with continuing education opportunities which will enable the Nurses in updating their knowledge on caring of the patient presented with COVID. The administrator may also encourage the staff to incorporate evidence-based practices based on newer research studies in their clinical setting, wherever applicable.

Nursing Research

The nursing research uplift the profession and helps to acquire new body of knowledge and helps to fill the gap between old and new trends. Nurses should broaden their boundaries and involve themselves in evidence-based practices. The present study will provide a baseline data to educate Nurses dealing with care of the COVID patients.

On the basis of present research following recommendations are drawn for future research:

- A similar study can be conducted on a large population for better generalization of result
- A similar study can be conducted in a community setting
- A study can be conducted to assess the knowledge and attitude of the Nurses working with COVID patients
- A comparative research can be conducted on the pre and post-test knowledge of the Nurses by using teaching modules

Conclusion

Nurses plays an important role in providing knowledge to the patients, family members and community to improve the health status of the patients suffering from COVID.

The present study was a descriptive study to assess stress and coping strategies used by Nurses working in COVID setup in a tertiary care hospital in Lucknow. The conclusions drawn from the study is that Nurses have good knowledge, coping strategies and positive attitude.

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Conflict of Interest: None

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