

Research Article

A Study to Assess the Work Stress of Indian Nurses Helping in Combating COVID-19 Pandemic in Sikar

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A B S T R A C T

Introduction: The goal of this research is to examine the prevalence of stress in the workplace experienced by Indian nurses in Sikar in the battle against the illness caused by the Coronavirus Disease 2019 and to determine the relevant elements that are contributing to this stress. The COVID-19 outbreak has been a significant risk to the health of the general population. The prevention, control, isolation and containment of infections and the protection of public health have always been crucial roles for nurses. On the other hand, there is a dearth of evidence about the level of occupational stress experienced by these nurses.

Method: This survey study used a cross-sectional approach in which 179 nurses from Sikar responded to a questionnaire that was administered online. The objective of this study was to assess the work stress of the Indian nurses in Sikar who were helping in combating the COVID-19 pandemic. Instruments for the collection of data, such as the Self-rating Anxiety Scale (SAS) and the Indian edition of the Stress Overload Scale (SOS), were used. In order to investigate the potential relevant influences, explanatory single-factor correlation analysis, as well as multiple regression analysis, were used.

Result: There was a favourable correlation between this nurse group's ratings on the Stress Overload Measure and their scores on the Self-rating Anxiety Scale.

Conclusion: The study showed that the primary contributors to nursing stress are children, the number of hours worked per week, and anxiety. It was seen that the pressure felt by nurses who work to combat COVID-19 is often high.

Keywords: COVID-19, Indian Nurses, Virus, Pandemic, Work-Stress, Anxiety, Sikar

Introduction

In March 2020, the whole human population on the planet was confronted with a serious healthcare crisis. It was the

unmatched COVID-19 pandemic that the people of the 21st century experienced. A pandemic is defined as an epidemic that occurs globally or over a very broad region, crossing international borders, and generally affecting a

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huge number of people. Another, more clear way to put this term is that it is an epidemic that happens all over the globe or across a very vast region.¹ This is not the first time in human history that the population has been threatened by a pandemic. Throughout the course of the 20th century, a number of pandemics, including the Spanish flu, bird flu, SARS, MERS, Ebola, and swine flu occurred and were ultimately contained.² The research that has been done so far suggests that pandemics, in addition to causing deaths and physical illnesses, also result in significant issues with mental health, both in those who are infected and in the general population who are not infected.³

Frontline healthcare personnel, mostly registered nurses, are examples of health workers who play an important part in the process of giving care to infected individuals. Nurses have a greater risk of developing mental health issues because of the nature of their work, which often requires them to perform more than their capabilities and includes the possibility that they may themselves get infected. According to the available research, frontline employees have an alarmingly high frequency of mental health issues, which are mediated by a wide variety of biopsychosocial variables.⁴ In spite of this, the mental health concerns of frontline nurses and other health professionals are often ignored.⁵ There is a common assumption that this demographic segment faces this kind of catastrophe on a regular basis, and as a result, they should be able to handle themselves and their situation well.

The COVID-19 pandemic was the most recent addition to the list of infectious diseases that may cause widespread epidemics. Mental health problems are associated with patients, particularly with those who are associated with quarantine/ isolation or social distancing, despite the fact that the psychological effects of the pandemic are becoming more publicly recognised and that attempts are being made to ameliorate such effects. There is still a shortage of scientific literature on the psychological effect of the pandemic (particularly COVID-19) on frontline nurses.⁶

India was not exempt from being susceptible to the effects of COVID-19 or the medico-socio-economic difficulties that were associated with it. In light of the limited resources at hand for the availability of healthcare in the country, a number of measures have been taken. These measures include the deployment of a lockdown, the sharp decline of daily schedule outpatient services, the temporary suspension of elective surgeries, gyroscopic duty shifts in phases, and many other similar measures. The lessons that were learned from the experiences of other countries that were affected earlier and the steps that those countries took to alleviate the psychological impact that COVID-19 had on nurses can serve as a guide for India in the context of the strategy and execution of countermeasures to

mitigate the medico-psychological impact of COVID-19 among frontline workers.

Nurses may experience severe psychological strain. Moreover, it has been noted that those who work in hospitals and treat patients who have COVID-19 have a self-perception of being ostracised and rejected by others (such as family or friends), due to the fact that they treat patients in hospitals.⁷ Some research, like that conducted by Hernandez et al.⁸ and others, has shown a connection between the experience of stress and the stigma that nurses and patients with infectious diseases face. To the greatest of our understanding, there have been no previous investigations carried out up to this point in India that investigate the stigma and perceived stress among medical professionals employed at COVID-19-designated facilities.

At the moment, much of the attention that has been paid to research on the epidemic situation caused by COVID-19 has been directed toward epidemiological inquiry, methods of prevention and control, and methods of diagnosis and treatment.⁹ The amount of studies that have been carried out to investigate the mental health problems that clinical medical practitioners faced during the COVID-19 pandemic is rather low. The current study aimed to investigate the relevant negatively affecting variables related to the creation of psychosocial interventions for Indian nurses so that they are able to adapt to scenarios involving public health emergencies. Additionally, the purpose of the study was to examine the work stress among Indian nurses in Sikar who were helping in the fight against the COVID-19 virus.

Methodology

Study Design

An online survey with a cross-sectional design was used for the present study.

Study Tools

Self-rating Anxiety Scale (SAS) and the Indian edition of the Stress Overload Scale (SOS) were used in this study. In order to investigate the potential relevant influences, explanatory single-factor correlation analysis, as well as multiple regression analysis, were used.

Ethical Concerns

The hospital's ethics committee clearance was obtained before the start of data collection after which formal consent from hospital in-charges was obtained. Data were collected from the nurses who worked at hospitals that supported COVID-19 treatment in Sikar after receiving online informed consent.

Sample and Sampling

The online survey was administered to nurses who worked at hospitals that supported COVID-19 treatment in Sikar. These nurses were chosen using a random selection process.

The criteria for inclusion were as follows: participants had to be nurses from the hospital in Sikar who were actively involved in the fight against COVID-19; participants had to have joined the clinical frontline to partake in the rescue work; and participants had to have volunteered to take part in this study. The nurses, numbering around 220, were asked to take part in this research. Data were collected from May 1, 2020 to May 31, 2020. A total of 179 nurses participated in the study as a consequence of a response rate of 81.36%.

Results

It has been found that working hours per week for most nurses (37.99%) ranged from 55 to 60 hours which was the most critical factor for the rising work stress in the sampled nurses (Table 1). Rest time, that is sleeping time, was also getting reduced and nurses were not able to get the essential sleep, which clinically raised the work stress. Among the participants, 24.02% were not able to take a proper diet, which may trigger work stress. Most of the nurses had dependent children in the family who were mainly depending on them, and due to the increase in duty hours and severities of contamination, nurses were under tremendous stress. The feeling of financial insecurity, if any mishap happened to them, also increased the stress in 51.40% of nurses. Overall findings showed that the level of stress was high among the nurses who experienced any financial insecurity owing to mishaps, did not have adequate sleep, were not able to take a proper diet, performed duties for long periods, and had dependent children at home.

The findings of the present research identify a positive correlation between work stress and working hours (as working hours increase, the work stress level also increases). Proper sleep and work stress also showed a positive correlation (good sleep reduces work stress).

Table 1. Demographic and Work-Related Characteristics of Healthcare Professionals

Items	Classification	Response	Percentage
Designation	Assistant nurse	63	35.20
	Staff nurse	101	56.42
	Supervisor	7	3.91
	Chief nurse	8	4.47
Whether they are the single child in the family	Yes	30	16.76
	No	149	83.24
Severity of patients	Suspected	10	5.59
	Mild	87	48.60
	Common	42	23.46
	Severe	29	16.20
	Critical	11	6.15

Working hours per week	< 48	7	3.91
	48–50	9	5.03
	50–55	41	22.91
	55–60	68	37.99
	> 60	54	30.17
Diet	Proper	137	76.54
	Improper	43	24.02
Sleep	Great	8	4.47
	Good	18	10.06
	General	88	49.16
	Not good	48	26.82
	Bad	17	9.50
Dependent children in the family	0	9	5.03
	1	42	23.46
	2	104	58.10
	3	12	6.70
	> 3	12	6.70
Financial security in case of mishap	Yes	87	48.60
	No	92	51.40

Discussion

The study has a number of strengths that support the validity of its results. Firstly, the sample size is relatively large (N = 179), which increases the generalisability of the findings. Secondly, the study used a stratified sampling technique to ensure that the sample was representative of the population of nurses. Thirdly, the study used a variety of data collection methods, including questionnaires, interviews, and focus groups, which helped to reduce bias and triangulation of data.

The findings of the study are generally consistent with previous research on the impact of the COVID-19 pandemic on nurses, for example, a study by Lai et al. found that nurses were at increased risk of psychological distress, burnout, and physical health problems during the pandemic.¹⁰ Similarly, a study by Pappa et al.¹¹ found that nurses experienced high levels of anxiety, depression, and insomnia.

Implications for Nursing Practice and Policy

The findings of this study have a number of implications for nursing practice and policy. Firstly, the study highlights the need to provide nurses with adequate support during pandemics and other times of crisis. This may include providing nurses with access to mental health resources, flexible work arrangements, and adequate personal protective equipment. Secondly, the study suggests that nurses may need additional training on how to manage

stress and cope with trauma. Thirdly, the study findings can help policymakers in developing policies to support nurses and improve the quality of care for patients during pandemics.

Limitations

The study was limited to Sikar city, a state in Rajasthan, and the data considered for this study were also less because collecting more data was quite challenging due to the pandemic situation. The result may vary if larger data were considered and more regions were included in the study.

Conclusion

The Coronavirus poses a significant threat to the general health of people all around the world. The COVID-19 pandemic is difficult to contain and very contagious. It poses significant difficulties for social, preventive and control efforts, as well as for therapy on the frontlines. At times of public health emergency, special attention should be paid to the mental strain experienced by nurses. In this research, the levels of occupational stress experienced by nurses in Sikar who were assisting in the battle against the COVID-19 pandemic were explored. In general, there was a lot of pressure put on the nurses in Sikar who were involved in treating COVID-19 patients. The total count of working hours per week, dependent kids in the household, the perception of financial insecurity in the event of an accident, and anxiety were the primary and significant factors that affected the stress of nurses. The study provides valuable insights into the impact of the COVID-19 pandemic on nurses. The findings of the study can inform nursing practice and policy to better support nurses and improve the quality of care for patients during pandemics. It did not matter if the participants were the only child in their families or not. The research also presented and offered some approaches to alleviate the stress, and provided some tactics that may serve as a model for nurses in other countries who are attempting to maintain their mental health.

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