

Problem Statement Assessment of Work Schedule and Coping Strategies Adopted by Staff Nurses Working in COVID-19 Areas of Selected Hospitals

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ABSTRACT

Background

The COVID-19 pandemic placed considerable physical, psychological and occupational demands on healthcare workers, particularly staff nurses working directly in COVID-19 areas. Increased workload, prolonged duty hours, fear of infection, changing protocols, use of personal protective equipment (PPE), and concerns about transmitting infection to family members contributed to occupational challenges. Nurses therefore required effective coping strategies to manage the demands associated with working in COVID-19 areas. The present study was undertaken to assess the work schedule and coping strategies adopted by staff nurses working in COVID-19 areas of selected hospitals.

Aim/Objectives

The objectives of the study were:

1. To assess the work schedule of staff nurses working in COVID-19 areas of selected hospitals, as described by their duty hours.
2. To assess the coping strategies adopted by staff nurses working in COVID-19 areas of selected hospitals.
3. To determine the association between the level of coping strategies and selected demographic variables.

Design

A quantitative, non-experimental descriptive survey design was adopted to assess the duty-hour patterns and coping strategies of staff nurses working in COVID-19 areas.

Setting

The study was conducted among staff nurses working in COVID-19 areas of selected hospitals. The target population comprised staff nurses working in COVID-19 areas in Maharashtra.

Sample Size

The sample consisted of 100 staff nurses who fulfilled the sampling criteria and were willing to participate in the study.

Sampling Technique

A non-probability convenience sampling technique was used to select the 100 staff nurses.

Instrument

Data were collected using:

- A structured demographic questionnaire covering age, gender, working area, duty hours, history of illness, previous experience and type of family.
- A 24-item modified four-point Likert scale for assessing coping strategies.

The coping scale had a possible score range of 24–96 and categorized coping as poor (34–54), average (55–75), and good (76–96). Content validity was established by five experts from relevant nursing and allied disciplines. Split-half reliability was assessed during tool development.

Major Findings

Among the 100 staff nurses, 76% were aged 20–30 years, 53% were female and 47% were male. Regarding working area, 28% worked in COVID ICU, 30% in COVID ward, 29% in COVID casualty and 13% in other COVID-19 areas.

In relation to duty hours, 26% worked 6-hour shifts, 33% worked 8-hour shifts, 23% worked 12-hour shifts and 18% worked more than 12-hour shifts, with 8-hour duty being the most common category.

Regarding coping strategies, 81% of staff nurses had average coping levels, 17% had poor coping levels and 2% had good coping levels.

Pearson's chi-square analysis showed no statistically significant association between coping-strategy category and age, gender, type of family, duty hours, working area, history of illness or previous experience at the 0.05 level ($p > 0.05$).

Conclusion

The study found that the majority (81%) of staff nurses working in COVID-19 areas had an average level of coping, while 17% had poor coping and only 2% had good coping. The nurses worked across different duty schedules, with 8-hour shifts being the most common. No statistically significant association was found between coping level and the selected demographic variables studied. The findings indicate the importance of supportive workplace systems, adequate rest, appropriate staffing, infection-prevention training, peer support and accessible psychosocial support for nurses working in infectious-disease settings.

Keywords: COVID-19; Staff Nurses; Work Schedule; Duty Hours; Coping Strategies; COVID-19 Areas; Nursing; Healthcare Workers; Descriptive Survey.

INTRODUCTION

COVID-19 has affected the lives and health of more than 1 million people across the world. This overwhelms many countries' healthcare systems, and, of course, affects healthcare providers such as nurses fighting on the frontlines to safeguard the lives of everyone affected.[1]

The workplace plays a vital role in the life of an employee. A poor workplace, deficient in essential working conditions, may fail to facilitate the achievement of individual and organizational goals and may result in situations that cause stress.[2]

Studies suggest that nursing staff during pandemics such as H1N1 Influenza and COVID-19 exhibit higher than usual stress levels due to an increasingly overburdened healthcare system and increasing infection rates. This study aims to investigate the major stressors and coping strategies reported by nurses working directly with potentially infectious patients in Alabama, United States, during the COVID-19 pandemic.[3]

The specific stressors that health workers face in the COVID-19 emergency are related to the organizational context. The challenges for medical staff include not only an increased workload but also a fear of infection, the need to work with new protocols that change frequently, and the use of PPE.[4]

The struggle of nurses to maintain their mental and emotional health while providing care to severely ill and infectious patients can create a professionally and ethically compromising position that some nurses are unable to effectively cope with.[5]

Starting in December of 2019, COVID-19 spread worldwide. A rapid infection rate and human-to-human transmission characterize COVID-19. Although the pandemic has been under effective control, numbers of confirmed and suspected cases continue to rise. Physicians, nurses, and ambulance workers are more likely to be infected than any other group. Of the confirmed cases worldwide, 6%, or 90,000, were healthcare workers. As of 11 February 2020, 1716 (3.8% of the country's confirmed cases) medical workers in China were infected, six of whom died, accounting for 0.4% of China's total deaths.[6]

Nurses play essential roles in the fight against infectious diseases. During the COVID-19 pandemic, nurses faced higher risks of death than physicians in some countries. The pandemic caused not only morbidity and mortality but also psychological and social problems. High expectations, lack of time, skills, and social support may lead to occupational stress that, in turn, causes anxiety, post-traumatic stress disorder, distress, burnout, and other psychological problems. Nurses may also experience a range of somatic symptoms, including palpitations, nausea, dyspnea, and dizziness. Unclear disease status and uncertainty regarding COVID-19 treatment and care policies exacerbate stress on nurses, affecting nursing care quality and even causing resignations.[7]

In public health crises, several factors influence the mental health status of nurses. Common risk factors that cause stress and anxiety during a pandemic include a lack of effective hospital management systems, lack of personal protective equipment (PPE) and training, exposure to confirmed cases, fear of being infected, fear of spreading the virus to family members, concerns about their children for not being taken care of long working hours, and heavy workloads. Previous studies showed that the effect on mental health varies by sex. During an Ebola outbreak, male health workers experienced more mental distress.[8]

Background Study

There are just under 28 million nurses worldwide, about 5.9 million short of what the world needs to adequately care for the growing population, according to a new report published Monday from WHO, the International Council of Nurses and Nursing Now.[9]

India has 1.7 nurses per 1,000 population, 43% less than the World Health Organisation norm (3 per 1,000). This includes nurses, midwives, women health visitors and auxiliary nurse midwives. Overall, India has 3.07 million registered nursing personnel, government told the Rajya Sabha on March 3, 2020.[10]

Maharashtra Nursing Council data shows the state has 1.25 lakh nurses registered, including BSc, MSc, General Nursing and Midwifery (GNM), and Auxiliary Nursing and Midwifery (ANM).[11]

On December 31st, 2019, the Wuhan Municipal Health Commission reported a novel coronavirus disease (COVID-19) after studying a cluster of cases of pneumonia in Wuhan, China's Hubei Province. Initial studies reported that the virus spread through social interactions with friends and family. This process resulted in the disease rapidly spreading throughout China. By January 13, 2020, cases of COVID-19 were reported in Thailand, marking its first cases of infection outside of China.¹ By March 11, 2020, COVID-19 was declared a

pandemic by the World Health Organization (WHO), with over 120,000 cases and 4300 death reported around the world.² WHO reports that as of October 22, 2020, there are over 40 million confirmed cases worldwide, with over 1 million deaths. [12,13]

Saini, Kaur and Das (2016) conducted a study among 285 nurses working in general and Intensive Care Units (ICU) at Post Graduate Institute of Medical Sciences, Chandigarh, India. The data were collected using modified Work Stress Symptom Scale (WSSS) and Coping Checklist (CCL). It was found that nurses working in ICUs experienced a moderate level of stress while nurses from general wards had a high level of stress. Workload, role ambiguity and lack of social support contributed to stress. The findings revealed that younger nurses had higher level of stress and female nurses had more than males. Higher stress was experienced by married nurses. The coping strategies used included problem-solving and religious coping.[14]

Many hospitals closed outpatient clinics while maintaining open emergency departments and fever clinics (EDFC) to reduce human-to-human transmission in hospitals. Hospitals establish fever clinics for the prevention and control of acute infectious diseases. As gatekeepers to the healthcare system, EDFC nurses distinguish confirmed cases from suspected patients through carefully evaluating their clinical manifestations, contact history, and travel history. EDFC nurses hold the key to controlling transmission among patients, staff, visitors, and the community. EDFC nurses are most likely to contact suspected patients, imparting a higher risk of exposure to the virus. Compared with the nurses in the isolation wards, some EDFC nurses may place less emphasis on protective measures. During the COVID-19 pandemic, many studies focused on nurses' mental health while caring for patients with confirmed disease in isolation wards. A better understanding of EDFC nurses' anxiety, stress, and coping mechanisms can help design intervention and training programs.[15]

During the Coronavirus Disease 2019 (COVID-19) pandemic, emergency departments and fever clinics nurses acted as gatekeepers to the healthcare system. To manage the psychological problems that these nurses experience, we should develop appropriate training and intervention programs.[16]

Need for Study

Healthcare workers fighting against the coronavirus disease 2019 (COVID-19) pandemic are under tremendous pressure, which puts them at an increased risk of developing psychological problems. [17]

Compared with the general population, healthcare workers are facing tremendous pressure from COVID-19, especially those who might be in contact with suspected or confirmed cases, due to the high risk of infection, inadequate protection, loss of control, lack of experience in managing the disease, overwork, negative feedback from patients, perceived stigma, significant lifestyle changes, quarantine and less family support.[18]

A more comprehensive understanding of psychological burden among different groups of healthcare workers during this period is crucial for providing psychological support, improving mental health support services and strengthening mental healthcare worldwide.[19]

A study assessed the stress and coping abilities of 329 nurses working in a super-specialty hospital in Kerala, India. A descriptive survey design was used. The data were collected using Expanded Nursing Stress Scale (ENSS) and Brief Cope (Carver 1997). The most frequently stressful areas rated by respondents were 'patients and their family' and 'workload', whereas 'inadequate emotional preparation' and 'discrimination' rated as least stressful situations. Further analysis revealed that nurses work in operation theatres and emergency units experience high level of stress in the area of conflicts with other care professionals. Nurses working in ICU's experience high level of stress in area of feeling inadequately prepared to help with the emotional needs of a patient or patient's family. The results indicated use of adaptive positive appraisal strategies being frequently used by nurses.[20]

The state of Kerala reported its first case of COVID-19 on 27 January 2020 and the first case in Maharashtra was reported in Pune on 9 March 2020. As the number of COVID-19 cases in Maharashtra is expected to increase as the infection rate rises, the study expects to see exceptionally greater burdens on the state's hospital

infrastructure. Further, the study expects to see numerous negative outcomes such as greater emotional and mental workload for healthcare professionals working during COVID-19. To better understand these negative externalities, additional research is required that investigates the severity of the social, emotional, and mental impact of working as a nurse during the COVID-19 pandemic.

Bridges J. (2020) While studies have investigated nurse stress during both the current pandemic as well as previous outbreaks, there are still gaps in the discussion regarding how nurse staff perceives the efficacy of psychological intervention as a coping strategy. For example, Cai et al. (2020) in studying nurse stress during the COVID-19 pandemic note the importance of psychosocial resources such as therapy provided by in-house psychologists. Overall, the study suggests the importance of connecting hospital resources to nurse stress, even during a pandemic. However, such studies largely assume the prevalence of organizational support such as psychosocial resources, with other studies observing that nurse staff may not even perceive the resource as beneficial to them, opting out of using it altogether.[21]

Ali H., Cole A., Sienkiewicz A. (2020) Research is also required to understand the extent to which individual characteristics such as age, seniority, being married, or having children affects perceived stress levels for nurse staff working during the COVID-19 pandemic. In more recent work, Babore et al. (2020), as well as Labrague & de los Santos (2020), found that working with patients infected with COVID-19 increased stress levels investigated nurse stress during COVID-Interestingly, the studies found that individual characteristics were not significant in explaining variations in stress levels. These findings run counter to many observations which suggest that being young, single, and less experienced is associated with greater stress levels among nurse staff. As a result, further testing is required to further examine the psychological impact and coping strategies of nurses while working under the COVID-19 pandemic.[22]

The researcher aimed to study how today's nurses dealt with the COVID-19 pandemic, the stressors they experienced while working in hospitals the different coping strategies they used while handling the situation and the emotional stress associated with these challenges.

Title of Study

Work schedule and coping strategies adopted by staff nurses working in COVID-19 areas.

PROBLEM STATEMENT

Assessment of work schedule and coping strategies adopted by staff nurses working in COVID-19 areas of selected hospitals.

Objectives

1. To assess the work schedule of staff nurses working in COVID-19 areas of selected hospitals, as described by their duty hours.
2. To assess the coping strategies adopted by staff nurses working in COVID-19 areas of selected hospitals.
3. To determine the association between the level of coping strategies and selected demographic variables.

Operational Definition

1. Assessment: Assessment is the act of judging or deciding the amount, value, quality, or importance of something, or the judgement or decision that is made.[23]

In this study, assessment refers to checking the work schedule and coping strategies adopted by staff nurses working in COVID-19 areas.

2. Coping strategies: Coping strategies refer to the specific efforts, both behavioral and psychological, that people employ to master, tolerate, reduce, or minimize stressful events.[25]

In this study, coping strategies refer to the ways in which staff nurses adopt activities to manage their work schedules and lifestyle while working in COVID-19 areas.

3. Staff nurses: A staff nurse is a hospital nurse whose rank is just below that of a sister or charge nurse.[26]

In this study, a staff nurse refers to a hospital nurse working in selected COVID-19 areas.

4. COVID-19: COVID-19 is a contagious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).[27]

In this study, COVID-19 has the same meaning as defined above.

5. Hospital: A hospital is a healthcare institution providing patient treatment with specialized medical and nursing staff and medical equipment.[28]

In this study, a hospital refers to a healthcare institution providing treatment to COVID-19 patients with specialized medical and nursing staff and medical equipment.

Scope of the Study

1. Nursing Practice: who will eventually get past COVID-19 in huge part by the hard work of nurses and other medical professionals? We have learned so much during global pandemic that we can use it to help change the nursing profession for the better.
2. Nursing Education: the effects of COVID-19 will long be seen throughout the nursing profession "According to nurse.org". and despite everything that it has taken from nurses, nursing students and prospective nurses- the year of the nurse will continue to show that nurses are resilient, dedicated and compassionate.
3. Nursing Administration: nursing administrators in the hospital setting should organize in-service educational programs or continuing education for registered nurses and encourage them to use patient-care skills effectively. The global pandemic will have long term impact on healthcare system and hospital administration will continue to adapt in an attempt to ease COVID-19 related financial debt, sustain and improve the quality of healthcare.
4. Nursing Research: This could mean the authors tested a specific hypothesis, test the tenets of theory, or tried to answer a specific research question. The researcher can use this study as literature for study. The study findings can be utilized in the review of literature or to conduct similar research.

Research Question

1. What were the work schedules, in terms of duty hours, of staff nurses working in COVID-19 areas of selected hospitals?
2. What level of coping strategies was adopted by staff nurses working in COVID-19 areas of selected hospitals?

Assumptions

1. It was assumed that staff nurses experience different work schedules and that these schedules may influence their ability to cope with the demands of their professional duties.
2. It was assumed that staff nurses have varying levels of coping strategies in response to the demands and challenges associated with their work schedule.

Ethical Aspects

Informed consent was obtained from the concerned subjects and authorities. Privacy, confidentiality, and anonymity were maintained. Scientific objectivity was maintained with honesty and impartiality.

1. The study proposal was sanctioned by institutional ethics committee.
2. Permission was obtained from the concerned authority.
3. Screening consent was obtained from all participants.
4. Informed consent was obtained from all the main study participants.
5. Confidentiality and anonymity were maintained throughout the procedure.
6. The data gathered through the research were used strictly for the benefit of the participants.

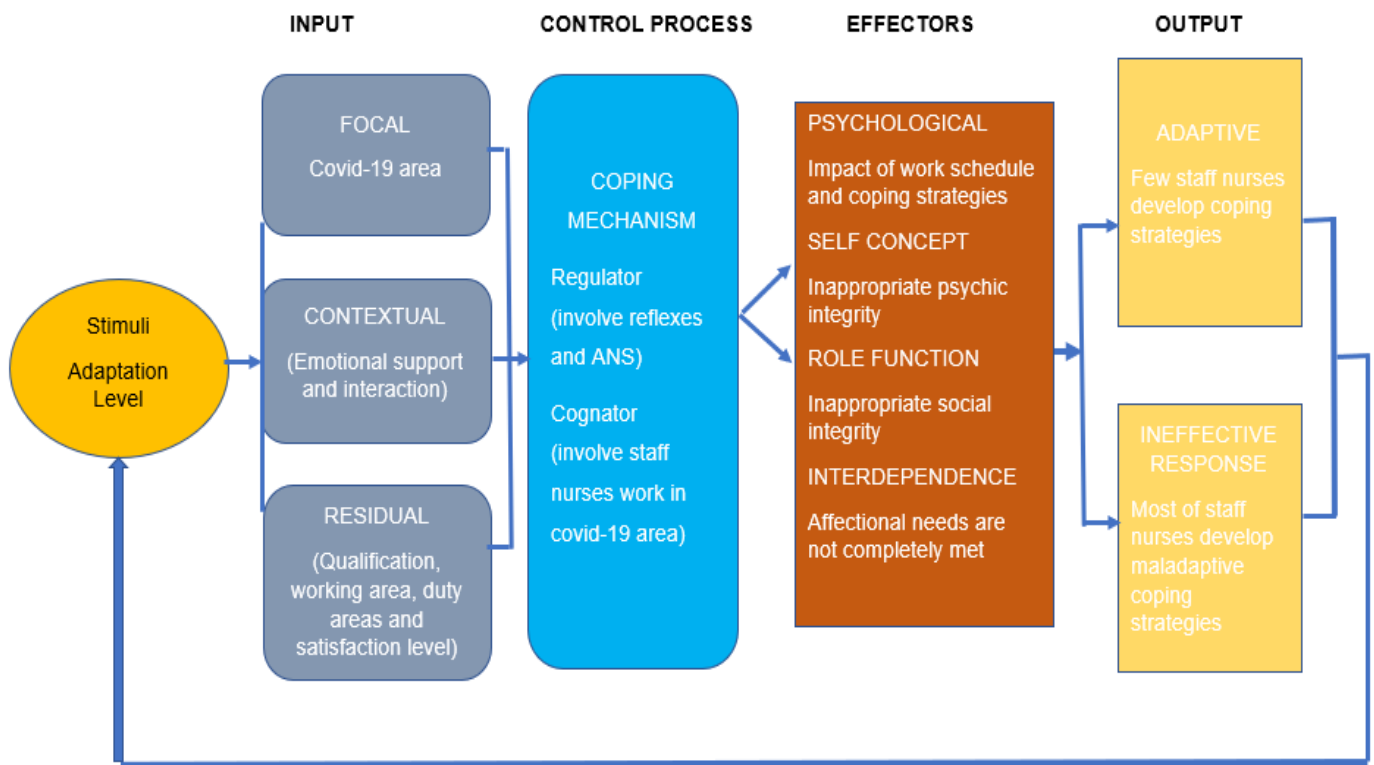
Conceptual Frame Work

The conceptual framework adopted in this study is based on Roy's Adaptation Model, developed by Sr. Calista Roy in 1964.

According to this theory, a person is an adaptive system which consists of inputs of stimuli, adaptation level and output as behavioural responses that serve as feedback and control processes known as coping mechanism.

The control process or coping mechanism is influenced by his/her perception of the stimuli. Various coping strategies are adopted to cope with the work schedule of staff nurses working in COVID-19 area of selected hospitals.

- 1) Input: Input is the lifestyle changes from the external environment and internal self. The stimuli are three types. Adaptation level is determined by the composition of these stimuli.
- 2) Focal stimuli: These are the stimuli most immediately confronting the person. In this study, the stimulus is the COVID-19 area.
- 3) Contextual stimuli: These are all other stimuli that contribute to the behaviour caused or precipitated by the focal stimuli.
- 4) Residual stimuli: Factors that may affect behaviour but whose effects are not validated. These can be qualification, working area, duty hours, satisfaction level etc.
- 5) Control Process: The control process is the person's biological and psychological coping mechanisms. These coping mechanisms are controlled by regulator and cognator sub-system. These coping mechanisms are influenced by the perception of stimuli.
- 6) Regulator sub-system: This coping mechanism responds automatically through neural, chemical, and endocrine processes.
- 7) Cognator Sub-system: This coping mechanism responds through complex processes of perception and information processing, learning, judgment and emotion. In this study, the cognator subsystem responses are the adaptive and maladaptive behaviour of the staff nurses.
- 8) Adaptive modes: Adaptive modes are the classification of ways of coping that manifests regulator and cognator activity that is psychological self-concept, role function and interdependences modes.



9) Psychological modes: Psychological needs involve the body's basic needs and ways of dealing with adaptation in regard to fluid and electrolytes; Exercise and rest; elimination; nutrition etc. In this study, the assessment focuses on the work schedule and coping strategies adopted by staff nurses working in COVID-19 areas.

10) Self-concept modes: self-concept is the composite of belief and feelings that are one whole about oneself at a given time. It is from perception, particularly other's reaction and direct one's behaviour.

11) Role performance modes: Role function is the performance of duties based on a given position in society. In this study, staff nurses verbalize their emotions, feelings, and problems.

12) Interdependence modes: It involves one's relationship with significant others and the support system. In this study, it represents effective ways of coping.

13) Output: It represents satisfactory and unsatisfactory responses toward adopting healthy coping mechanisms.

Fig1.1: conceptual framework based The Roy's Adaptation Model by Sr. Calista Roy (1964)

Summary

This chapter emphasized the need for study and stated the problem statement, objectives, inclusion and exclusion criteria, operational definition, scope of the study, assumption, conceptual framework.

REVIEW OF LITERATURE

According to Arlene Fink, a Literature Review is "a systematic, explicit, and reproducible method for identifying, evaluating, and synthesizing the existing body of completed and recorded work produced by researchers, scholars, and practitioners." [29]

It introduces the framework for the case study that comprises the main focus of the research describe in the thesis. The purpose is to offer an overview of what is known about to evaluate the strength of the evidence on that topic. It usually contains a summary, a synthesis, or an analysis of the key arguments in the existing literature.

A literature review is a written work that compiles significant research published on a topic by accredited scholars and researchers. Reviews critically, analyses, and synthesizes existing research on a topic; and, performs a thorough “review”, “overview”, or “look again” of past and current works on a subject, issue, or theory.

Chaturvedi N. (2018) Review of literature gives a broad understanding of the problem. The material gathered in the literature review should be treated as an integral part of research data, since what is found in the literature cannot only have an influence which is important on the formalities of the problem and design of research but also provide useful comparative material when the data collected in the research is analysed.

An attempt has been made by the investigator to review and discuss the research literature and its finding related to the present study. This is intended to develop deeper insight into the problem area, development of conceptual framework and research design.[30]

A literature is a type of review article. A literature review is a scholarly paper, which including substantive findings as well as theoretical and methodological contribution to particular topic.

REVIEW OF LITERATURE

Review of literature is an important step in the development of the research project. It involves systematic identification, location, scrutiny and summary of written materials that contain information on research problems.

1. **Cui S., Jiang Y., Shi Q., Zhang L., Kong D., (2020)** a cross-sectional study conducted among nurses from hospitals in Jiangsu Province to examine the psychological impact of COVID-19 upon EFO nurses. Results Among the participants, 281(62.03%) had no anxiety symptoms, 154(34.00%) had mild anxiety, 16(3.53%) had moderate anxiety, and 2(0.44%) had severe anxiety. There were 146(32.23%) participants with scores greater than 25 in the PSS, indicating excessive stress. We found that 229(50.55%) participants were more likely to respond positively to stress, while 224(49.45%) were more likely to respond negatively. Pearson correlation showed a positive correlation of the anxiety with stress score ($r=0.443$, $P<0.001$), while the coping tendency score was found negatively correlated with anxiety ($r=-0.268$, $P<0.001$) and stress ($r=-0.503$, $P<0.001$). Conclusion COVID-19 has a certain psychosocial impact upon EFO nurses.[31]
2. **Al Muharraq E (2021)** A cross-sectional, observational, quantitative study conducted on 215 frontline nurses working at 12 hospitals across Jazan, Saudi Arabia. The results showed roughly two-thirds (62.3%) of the participants reported moderate to high levels of nervousness and fear at work. Ethical and moral responsibility has been determined as the main motivator for frontline nurses to practice their profession, with 88% of them expressing a willingness to work even if the situation deteriorated further. However, 87% of the participants were extremely concerned about transmitting the disease to their family members. The most common coping strategy adopted by the nurses appeared to be adherence to strict protective measures (93.5%), followed by the acquisition of more knowledge about the disease (82.3%). In conclusion, frontline nurses experience severe psychological stress, which is mainly caused by their fear of contracting the infection or passing it on to their family members. Thus, proper education, adherence to infection control protocols, effective social support system, and access to sufficient personal protective equipment will help nurses enhance their coping abilities.[32]
3. **Anliu N., Xiangfen S., Shuzeng Z., Wenjie G., Jianfeng L. (2020)** a cross-sectional study conducted frontline nurses from designated hospitals for COVID-19. 263 frontline nurses selected by convenience sampling technique. The results showed that 66 (25.1%) were identified as psychological distress.

Multiple logistic analysis revealed that working in emergency department, concern for family, being treated differently, negative coping style and COVID-19-related stress symptom were positively related to psychological distress. Perceived more social support and effective precautionary measures were negatively associated with psychological distress. The study demonstrated that COVID-19 had a significant psychological impact on frontline nurses. Early detection of psychological distress and supportive intervention should be taken according to the associated factors to prevent more serious psychological impact on frontline nurses.[33]

4. **Fernandez R., Lord H., Halcomb E., Moxham L., Middleton R., Alananzeh I., Ellwood L. (2020)** a systematic review of thirteen qualitative studies. The experiences of 348 nurses generated a total of 116 findings, which formed seven categories based on similarity of meaning. Three synthesized findings were generated from the categories: (i) Supportive nursing teams providing quality care; (ii) Acknowledging the physical and emotional impact; and (iii) Responsiveness of systematised organizational reaction. In conclusion nurses are pivotal to the healthcare response to infectious disease pandemics and epidemics. This systematic review emphasises that nurses require Governments, policy makers and nursing groups to actively engage in supporting nurses, both during and following a pandemic or epidemic. Without this, nurses are likely to experience substantial psychological issues that can lead to burnout and loss from the nursing workforce.[34]
5. **Si M., Su Y., Jiang Y., Wang W., et al (2020)** a cross-sectional survey was conducted among 863 healthcare workers from seven provinces in China using standard questionnaires. The results showed post-traumatic stress (PTS) was prevalent in this sample of healthcare professionals, and 40.2% indicated positive screens for significant posttraumatic stress disorder symptoms. The proportion of having mild to extremely severe symptoms of depression, anxiety and stress were 13.6, 13.9 and 8.6%, respectively. Perceived threat and passive coping strategies were positively correlated to PTS and DASS scores, while perceived social support and active coping strategies were negatively correlated to DASS scores. Nurses were more likely to be anxious than others among medical care workers during the COVID-19 epidemic. In conclusion adverse psychological symptoms were prevalent among medical care workers in China during the COVID-19 epidemic. Screening for adverse psychological outcomes and developing corresponding preventive measures would be beneficial in decreasing negative psychological outcomes.[35]
6. **Labrague L., Santos J. (2020)** a cross-sectional study involving 325 registered nurses from the Philippines using four standardised scales. The results showed that out of the 325 nurses in the study, 123 (37.8%) were found to have dysfunctional levels of anxiety. Using multiple linear regression analyses, social support ($\beta = -0.142$, $p = 0.011$), personal resilience ($\beta = -0.151$, $p = 0.008$) and organisational support ($\beta = -0.127$, $p = 0.023$) predicted COVID-19 anxiety. Nurse characteristics were not associated with COVID-19 anxiety. In conclusion resilient nurses and those who perceived higher organisational and social support were more likely to report lower anxiety related to COVID-19.[36]
7. **Elbqry G., Elmansy F., Elsayed A., et al., (2021)** a descriptive cross-sectional study conducted using a convenience sample on physicians-112, nurses-183, pharmacists-31 and laboratory technicians-38. The results showed that more than three-quarters of the studied participants had a satisfactory level of knowledge and infection control measures. Approximately all of the studied participants had a positive attitude regarding COVID-19. A total of 57.4% of the studied medical participants had moderate COVID-19 psychological stress levels, while 49.1% of the studied paramedical participants had moderate COVID-19 psychological stress levels. But less than one quarter had severe COVID-19 psychological stress levels. There is a significant correlation between COVID-19 psychological stressor levels and satisfactory level of knowledge among medical participants. In conclusion, most of healthcare workers had a satisfactory level of knowledge, infection control measures, and a positive attitude regarding COVID-19. Most of them had moderate COVID-19 psychological stress levels.[37]
8. **Said R., El-Shafei D. (2021)** A comparative cross-sectional study was conducted among 210 nurses from Zagazig Fever Hospital (ZFH) which is one of COVID-19 Triage Hospitals (Group I) versus 210 nurses from Zagazig General Hospital (ZGH) (Group II) which is neither triage nor isolation hospital; dealing only with suspected COVID-19 patients in emergency at Sharkia Governorate, Egypt. The results showed that three quarters of nurses (75.2%) in ZFH had high stress level versus 60.5% in ZGH. Workload (98.6%), dealing with death and dying (96.7%), personal demands and fears (95.7%), employing strict biosecurity measures (95.2%), and stigma (90.5%) represented the highest priority

stressors in ZFH, while exposure to infection risk (97.6%) was the stressor of highest priority among ZGH according to Pareto analysis. More than half of nurses (51.0%) in ZFH reported low satisfaction level versus 41.9% in ZGH. Only 4.8% of nurses in ZFH definitely had no intent to leave their present job. Type of hospital and its related workload were the most significant predictor of all the studied outcomes.[38]

9. **Zhang Y., Wang C., Pan W., et al., (2020)** A cross-sectional survey was conducted among 110 nurses from Zhongshan Hospital, Shanghai. A COVID-19 questionnaire was adapted from the previous developed “psychological impacts of SARS” questionnaire and included stressors (31 items), coping strategies (17 items), and effective support measures (16 items). Burnout was measured with the Maslach Burnout Inventory. Totally, 107 (97%) nurses responded, Homesickness was most frequently reported as a stressor (96.3%), Burnout was observed in the emotional exhaustion and depersonalization subscales, with 78.5 and 92.5% of participants presenting mild levels of burnout, respectively. 52 (48.6%) participants experienced a severe lack of personal accomplishment. Participants with longer working hours in COVID-19 quarantine units presented higher emotional exhaustion (OR = 2.72, 95% CI 0.02–5.42; $p = 0.049$) and depersonalization (OR = 1.14, 95% CI 0.10–2.19; $p = 0.033$). Participants with younger age experienced higher emotional exhaustion (OR = 2.96, 95%CI 0.11–5.82; $p = 0.042$) and less personal accomplishment (OR = 3.80, 95% CI 0.47–7.13; $p = 0.033$).[39]
10. **Cui S., Jiang Y., Shi Q., Zhang L., et al., (2020)** an online cross-sectional study recruited participants through snowball sampling. Nurses self-administered the online questionnaires, including a general information questionnaire, the Self-Rating Anxiety Scale, the Perceived Stress Scale-14, and the Simplified Coping Style Questionnaire. The results showed that obtained 481 responses, of which 453 were valid, an effective response rate of 94.18%. Participants who had the following characteristics had more mental health problems: female gender, fear of infection among family members, regretting being a nurse, less rest time, more night shifts, having children, lack of confidence in fighting transmission, not having emergency protection training, and negative professional attitude. In conclusion effective measures are necessary to preserve mental health of nurses in emergency departments and fever clinics. These include strengthening protective training, reducing night shifts, ensuring adequate rest time, and timely updating the latest pandemic situation.[40]
11. **Ali H., Cole A., Ahmed A., Hamasha S., Panos G. (2020)** A cross-sectional questionnaire study was conducted with nursing staff working in hospitals. The questionnaire was completed by 109 nurses working in hospitalss that treated COVID-19 patients. The study found that most nurses (82%) are stressed about getting their friends and family infected. Overall, younger, less experienced nurses reported more stress levels compared to older, senior-level nurses. Findings suggest that many nurses fail to perceive protective measures as an effective coping strategy, with only 75% reporting problem-solving strategies such as hand washing and wearing a face mask, and only 60% avoiding public transportation and crowded spaces. Findings also suggest a lack of organizational support including psychiatric assistance, with no nurses reportedly seeking psychological therapy. The COVID-19 pandemic increased the stress level of the nursing staff in Alabama. The study finds that the cases in the state of AL are still increasing dramatically, which can overwhelm the healthcare system and escalate nurse stress levels.[41]
12. **Sun N., Wei L., Shi S., Jiao D., Song R., Ma L., Wang H., et al. (2020)** A qualitative study on the psychological experience of caregivers of COVID-19 patients with the sample of 20 nurses who provided care for COVID-19 patients in the First Affiliated Hospital of Henan University of Science and Technology. The psychological experience of nurses caring for COVID-19 patients can be summarized into 4 themes. First, negative emotions present in early stage consisting of fatigue, discomfort, and helplessness was caused by high-intensity work, fear and anxiety, and concern for patients and family members. Second, self-coping styles included psychological and life adjustment, altruistic acts, team support, and rational cognition. Third, we found growth under pressure, which included increased affection and gratefulness, development of professional responsibility, and self-reflection. Finally, we showed that positive emotions occurred simultaneously with negative emotions. Conclusion is during an epidemic outbreak, positive and negative emotions of the front-line nurses interweaved and coexisted. In the early stage, negative emotions were dominant and positive emotions appeared gradually. Self-coping styles and psychological growth played an important role in maintaining mental health of nurses.[42]



Summary

This chapter deals with the review of literature. All the above studies helped the investigator to understand the magnitude of the problem. A large number of studies on coping strategies were available. It also helped the investigator to prepare the necessary tool to check for feasibility of the study. As the citizen and professional nurse, the investigator felt the responsibility to assess the COVID-19 on schedule and coping strategies adopted by staff nurses.

CHAPTER III

This chapter describes the quantitative, non-experimental descriptive survey design used to assess duty-hour patterns and coping strategies among staff nurses working in COVID-19 areas of selected hospitals. It includes the research approach, design, setting, population, sample, sampling technique, eligibility criteria, instrument development, validity, reliability, pilot study, data collection procedure and statistical analysis plan.

RESEARCH APPROACH

“Research Approach is systematic, objective method of discovering with empirical evidence.” (Pilot and Hungler, 1995)

The present study aims at “assessing coping strategies adopted by the staff nurses working in COVID-19 areas”.

The present study used a quantitative approach because the variables were measured numerically and summarized using descriptive statistics, with inferential analysis used to examine associations between coping category and selected demographic variables.

Research design

Research design is the backbone or the structure of the study. The selection of research design is the most important steps as it provides the framework for the study.

Research design is a simply a plan for conducting research. It is a blue print for how you will conduct program evaluation. Selecting the appropriate design and working through and completing a well thought out logic plan provider a strong foundation for achieving successful and information program evaluation. A research design is a guide chosen by researcher to answer questions or test hypothesis.

The research design that is chosen for this study is quantitative, non-experimental descriptive survey design. A quantitative, non-experimental descriptive survey design was used to assess the coping strategies adopted by the staff nurses working in COVID-19 areas of selected hospitals. It provides the best framework for the study.

Setting of the Study

Setting refers to the areas where the study was conducted.

The study was conducted in COVID-19 areas of selected hospitals.

Population

Population refers to the total category of persons or objects that meet the criteria for the study established by the researcher, any set of persons, objects or measurements having an observable characteristic in common.

The population selected for the present study was the staff nurses working in COVID-19 areas of selected hospitals.

Target Population

The target population is the entire population in which the researcher is interested and to which the researcher would like to generalize the results.

The target population of the present study was staff nurses working in COVID-19 areas of Maharashtra.

The accessible population is the portion of the target population that is conveniently accessible to the investigator.

The accessible population of the present study was staff nurses working in COVID-19 areas of selected hospitals.

Sample

A sample is “a subset of a population selected to participate in a research study”.

The sample selected for the present study was staff nurses working in COVID-19 areas of selected hospitals

Sample Size

The sample size selected for this study was 100. Only those who fulfilled the sampling criteria and who expressed their willingness to participate in the study were selected.

Sampling Technique

Sampling is the process of selecting representative units of a population for study in a research. It is the process of selecting a subset of a population in order to obtain information regarding a phenomenon in a way that represents the entire group.

The sampling technique used in this study was non-probability convenience sampling technique for selecting 100 samples.

Sampling Criteria

The target population comprised staff nurses working in COVID-19 areas in Maharashtra.

Inclusion criteria

1. Nurses working in COVID-19 areas.
2. Willing to participate in this study.
3. Nurses in the age group of 20 to 50 years.
4. Able to read and understand English language.

Exclusion criteria

1. Those who did not have exposure to or experience working in a COVID-19 ward.

2. Nurses who were not registered under MNC.

DATA COLLECTION TECHNIQUE AND TOOL

One of the most important aspects of any research is data collection which provides answers to the question under study. Tool is selected appropriately in a given situation, depending on the research approach, sample size, and established criteria. The phenomena in which the researcher is interested must ultimately be translated into data that can be analyzed.

A Modified Likert scale was used for assessing the coping strategies adopted by the staff nurses working in COVID-19 areas of selected hospitals.

Thus, a Modified Likert scale was used for data collection. keeping the objectives of the study in view.

Development of Tool

Tool is a method, technique, device or a form designed to guide the observations, to collect, assess or record and measure the collected data in a systematic and uniform manner. Tool is selected appropriately in a given situation, depending on the research approach, sample size, laid down criteria.

For the selection of items and preparation of the tool, the following steps were taken:

- A review of the literature was conducted in areas related to coping strategies adopted by the staff nurses working in COVID-19 areas.
- Opinions and suggestions were obtained from experts, which helped in determining the important areas to be included.

Description of the Tool

The instrument consisted of two sections:

A. A 24-item modified four-point Likert scale assessing coping strategies.

- For positively worded items, responses were scored as never = 1, sometimes = 2, most of the time = 3 and always = 4. For negatively worded items, reverse scoring was applied: never = 4, sometimes = 3, most of the time = 2 and always = 1. The total possible score for the 24-item scale is 24–96. In this thesis, coping was categorized as poor (34–54), average (55–75), and good (76–96).

Validity

The instrument was reviewed for content validity by five experts from obstetrics and gynecological nursing, pediatric nursing, statistics, medical-surgical nursing and community health nursing.

Reliability

The reliability of an instrument that yields quantitative data is a major concern for assessing its quality and adequacy. Essentially the reliability of an instrument is the degree of consistency with which it measures the attribute it is supposed to be measuring. The reliability of a measuring tool can be assessed in several different ways. (Polit and Hungler, 2008)

After establishing the validity of the tool to be used for the study, the final tool was prepared and its reliability was assessed.



Split-half reliability was assessed during tool development. The available thesis record does not provide the numerical reliability coefficient; therefore, no coefficient has been added or inferred.

Pilot Study

A pilot study is a small-scale version or trail run of the major study. The function of the study is to obtain information and assess feasibility of the study for improving and to decide the plan for data analysis. (Polit and Hungler, 1995)

The researcher approached the subjects, were informed about the objective of the study and obtained consent after assuring the subject about the confidentiality of the data. The sample was selected using a convenience sampling technique. Coping strategies adopted by staff nurses working in COVID-19 areas were assessed with the help of a Modified Likert Scale.

Procedure for Data Collection

Actual data collection was carried out among 100 staff nurses working in COVID-19 areas meeting the criteria for the study. Samples were selected from the selected hospitals.

The following schedule was followed for data collection: the objective of the study was discussed with the subjects and their consent was obtained for participation in the study. They were assured about the confidentiality of the data. The investigator administered the Modified Likert Scale and structured demographic questionnaire. The duration of data collection for each sample was 10 minutes.

Plan for Data Analysis

Statistical analysis was aligned with the stated objectives. Frequencies and percentages were used for demographic characteristics, duty-hour patterns and coping categories. Pearson's chi-square test was used to examine associations between coping category and selected demographic variables. The level of statistical significance was set at $p < 0.05$. Degrees of freedom and p-values are reported with the chi-square statistics.

Summary

This chapter dealt with methodology adopted for present study, research approach, variables under study, setting, population, selection of sample, criteria for sample selection and description of reliability and validity of the tool, pilot study, data collection procedure and plan for data analysis.

ANALYSIS AND INTERPRETATION

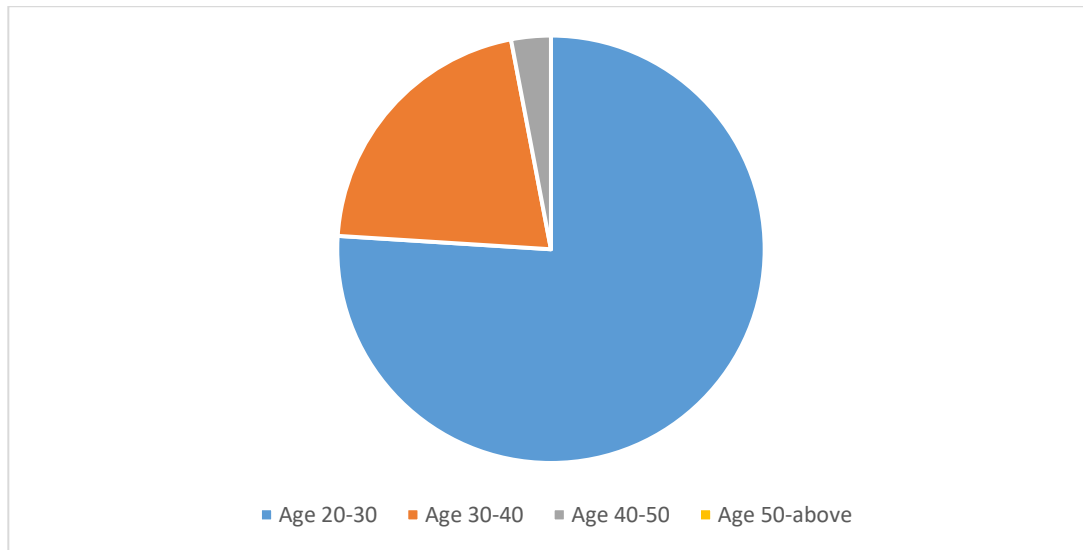
SECTION A

Table 4.1: Distribution of demographic samples according to Age in years.

(n=100)

Age	Frequency	Percentage
20–30	76	76%
30–40	21	21%
40–50	3	3%
50 and above	0	0%

Fig. 4.1: Pie diagram showing the percentage distribution of age of staff nurses in years.



With respect to age, 76 (76%) staff nurses were aged 20–30 years, 21 (21%) were aged 30–40 years, 3 (3%) were aged 40–50 years, and none were aged 50 years or above.

Table 4.2: Distribution of demographic variable data of samples according to the gender. (n=100)

Gender	Frequency	Percentage
Male	47	47%
Female	53	53%

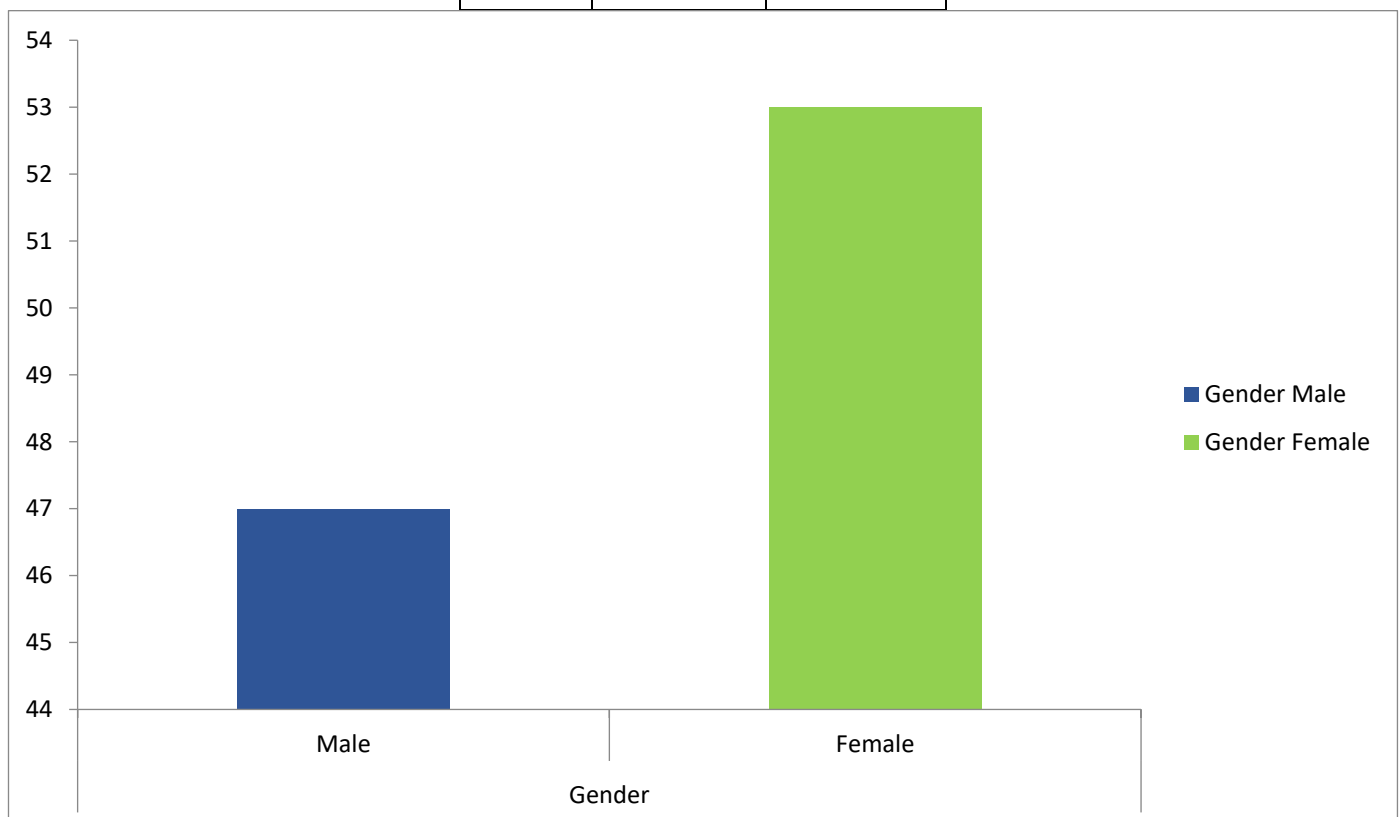


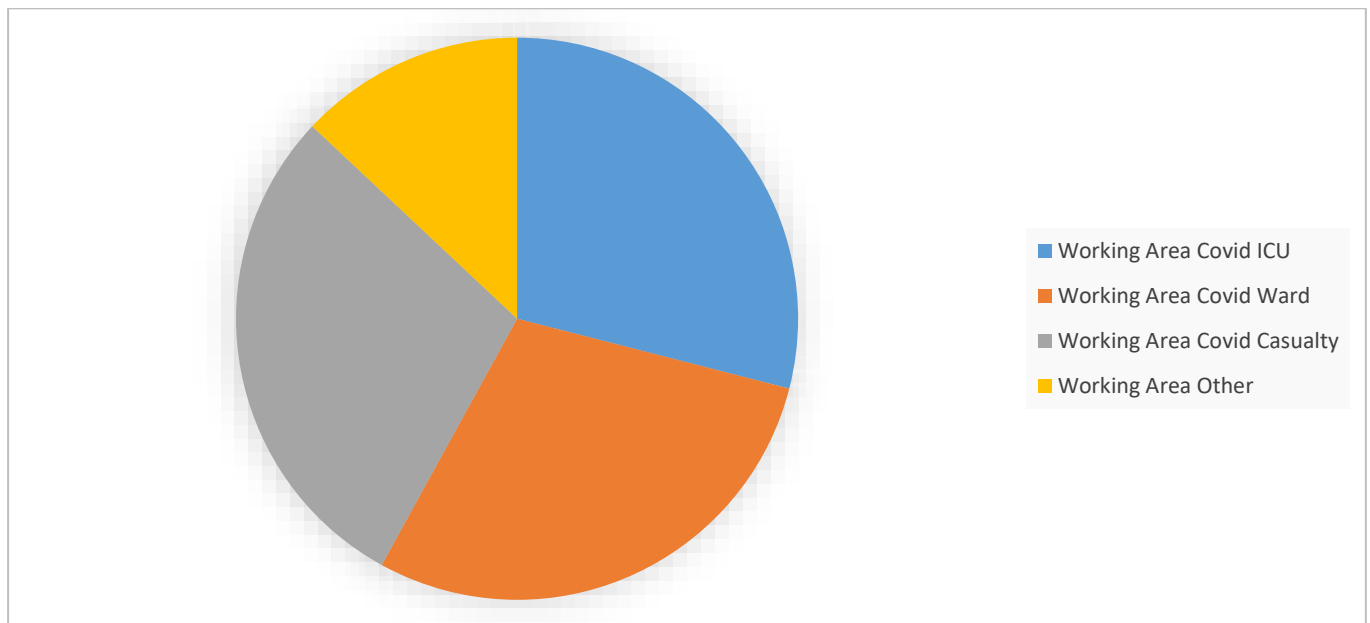
Fig 4.2: Column diagram showing the percentage distribution of staff nurse's gender.

With respect to gender, 47 (47%) staff nurses were male and 53 (53%) were female.

Table 4.3: Distribution of demographic variable data of sample in a group according working area of staff nurses (n=100)

Working area	Frequency	Percentage
COVID ICU	28	28%
COVID Ward	30	30%
COVID Casualty	29	29%
Other	13	13%

Fig 4.3: Pie diagram showing the percentage distribution of samples according to working area.

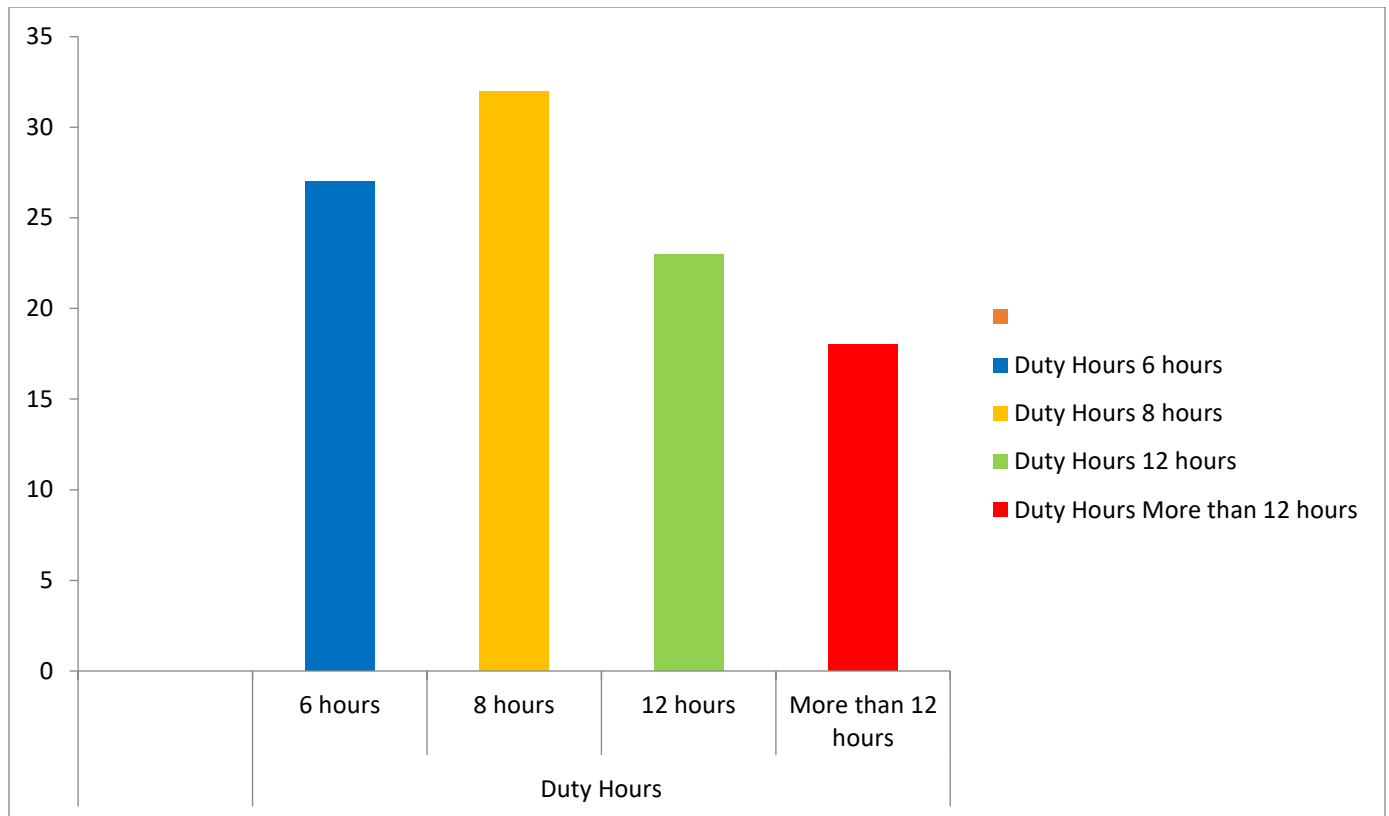


With respect to working area, 28 (28%) staff nurses worked in the COVID ICU, 30 (30%) in the COVID ward, 29 (29%) in the COVID casualty, and 13 (13%) in other COVID-19 areas.

Table 4.4: Distribution of demographic variables of samples according to duty hours. (n=100)

Duty hours	Frequency	Percentage
6 hours	26	26%
8 hours	33	33%
12 hours	23	23%
More than 12 hours	18	18%

Fig 4.4: Column diagram showing the percentage distribution of demographic variables of samples according to duty hours.

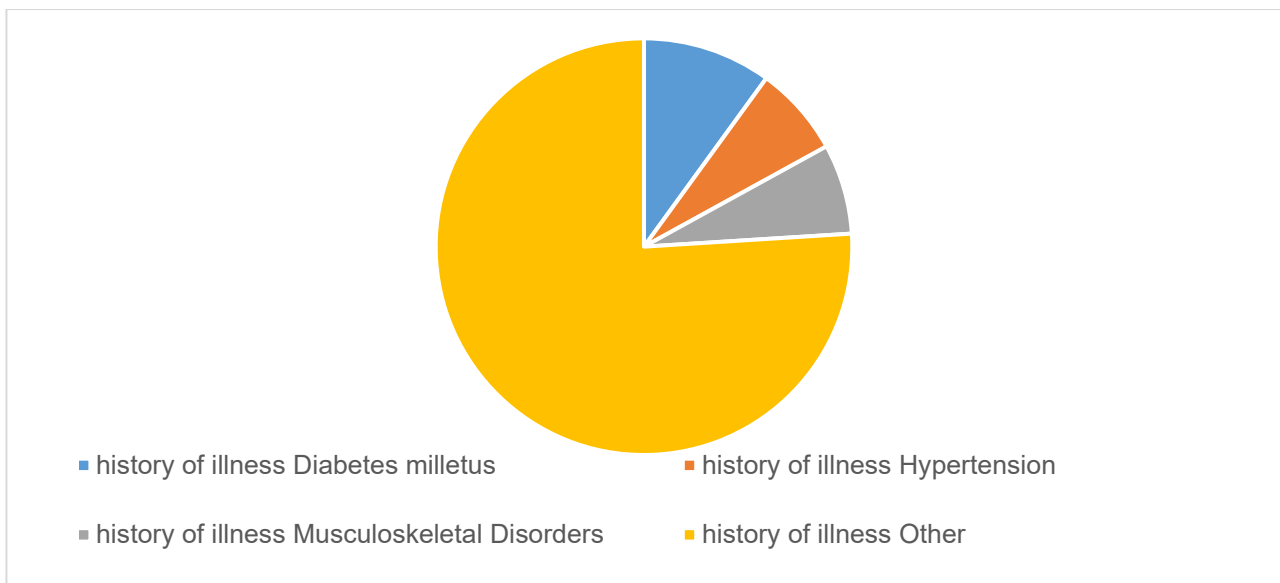


With respect to duty hours, 26 (26%) staff nurses worked 6-hour shifts, 33 (33%) worked 8-hour shifts, 23 (23%) worked 12-hour shifts, and 18 (18%) worked more than 12-hour shifts.

Table 4.5: Distribution of demographic variable data of samples according to the history of illness. (n=100)

History of illness	Frequency	Percentage
Diabetes mellitus	10	10%
Hypertension	8	8%
Musculoskeletal disorders	7	7%
Other	75	75%

Fig 4.5: Pie chart showing percentage distribution of demographic variable data of samples in according to the history of illness.

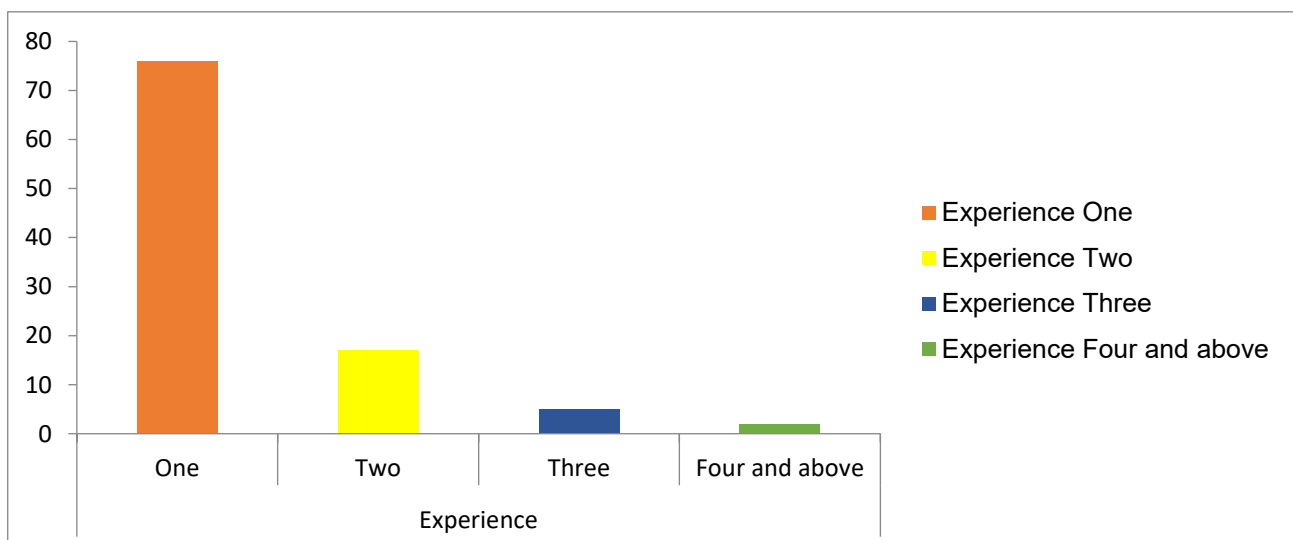


With respect to history of illness, 10 (10%) staff nurses reported diabetes mellitus, 8 (8%) reported hypertension, 7 (7%) reported musculoskeletal disorders, and 75 (75%) reported other conditions.

Table 4.6: Distribution of demographic variable data of samples according to the experience. (n=100)

Previous experience	Frequency	Percentage
1 year	76	76%
2 years	17	17%
3 years	5	5%
4 years and above	2	2%

Fig 4.6: Distribution of demographic variable data of samples according to the experience.

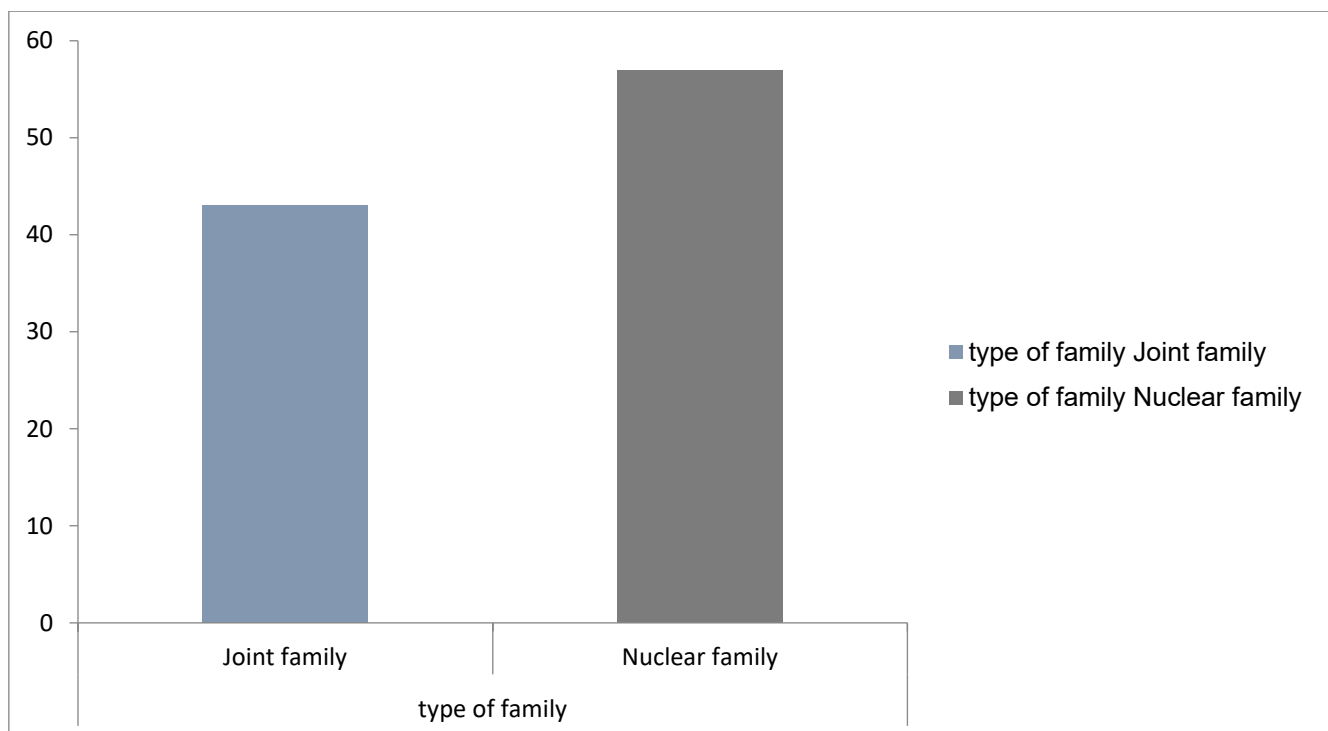


With respect to previous experience, 76 (76%) staff nurses had one year of experience, 17 (17%) had two years, 5 (5%) had three years, and 2 (2%) had four years or more.

Table 4.7: Distribution of staff nurses according to type of family (n=100)

Type of family	Frequency	Percentage
Joint family	43	43%
Nuclear family	57	57%

Fig 4.7: Distribution of demographic variable data of samples according to the type of family.



With respect to type of family, 43 (43%) staff nurses belonged to joint families and 57 (57%) belonged to nuclear families.

Section B:

Table 4.8: Distribution of staff nurses according to level of coping strategies

The 24-item modified four-point Likert scale produced total coping scores that were categorized as poor, average and good according to the predefined scoring criteria. (n=100)

Sr. No.	Category	Range	Frequency	Percentage
1	Poor	34–54	17	17%
2	Average	55–75	81	81%
3	Good	76–96	2	2%

Fig. 4.8: Bar graph showing the distribution of coping-strategy categories among staff nurses.

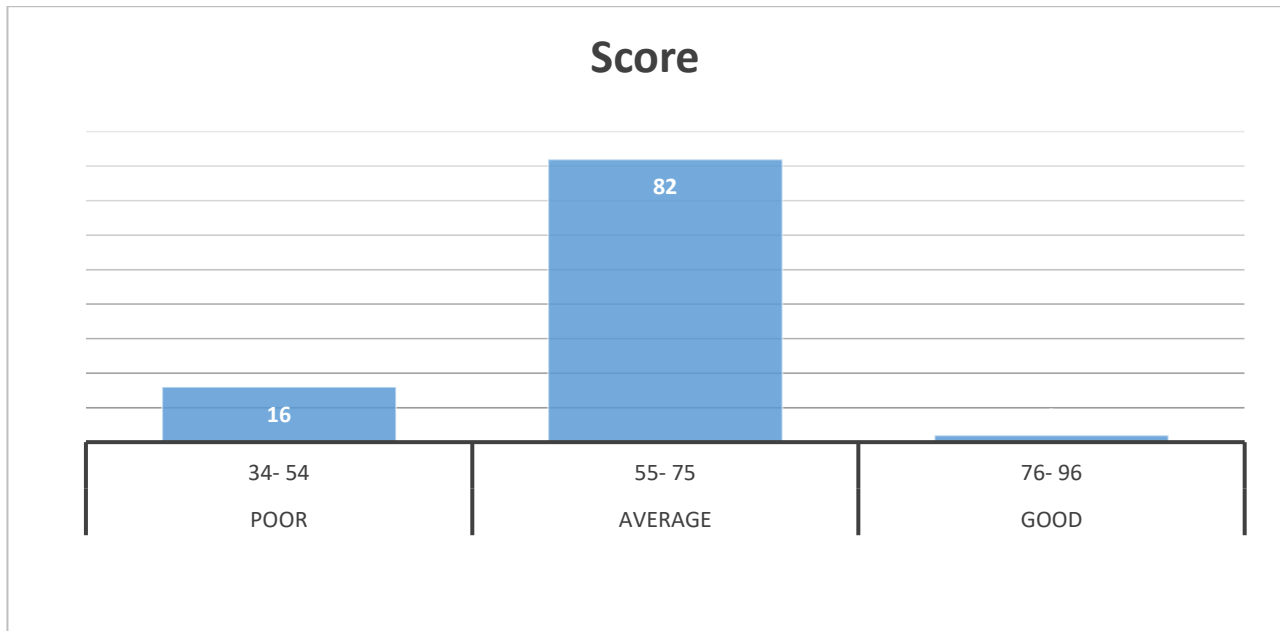


Table 4.9: Association between coping-strategy category and selected demographic variables. (n=100)

Variable	Category	Poor	Average	Good	χ^2 (df)	p-value
Age	20–30 years	14	60	2	1.554 (4)	0.817
	30–40 years	3	18	0		
	40–50 years	0	3	0		
	50 years and above	0	0	0		
Gender	Male	9	36	2	2.709 (2)	0.258
	Female	8	45	0		
Type of family	Joint family	6	36	1	0.521 (2)	0.771
	Nuclear family	11	45	1		
Duty hours	6 hours	4	21	1	5.319 (6)	0.504
	8 hours	4	28	1		
	12 hours	7	16	0		
	More than 12 hours	2	16	0		
Working area	COVID ICU	4	24	0	2.482 (6)	0.87

	COVID Ward	4	25	1		
	COVID Casualty	6	22	1		
	Other	3	10	0		
History of illness	Diabetes mellitus	2	8	0	3.250 (6)	0.777
	Hypertension	0	7	0		
	Musculoskeletal disorders	2	4	0		
	Other	13	62	2		
Previous experience	1 year	14	60	2	2.272 (6)	0.893
	2 years	3	14	0		
	3 years	0	5	0		
	4 years and above	0	2	0		

NS = not statistically significant at $p < 0.05$.

Pearson's chi-square test showed no statistically significant association between coping category and age, gender, type of family, duty hours, working area, history of illness or previous experience (all $p > 0.05$). Results should be interpreted cautiously because several contingency-table cells have small expected counts.

Statistical Methods Used

Descriptive statistics included frequencies and percentages for demographic characteristics, duty-hour patterns and coping categories. Pearson's chi-square test was used for associations between coping category and selected demographic variables. Statistical significance was set at $p < 0.05$.

- Frequencies and percentages were calculated for demographic characteristics.
- Frequencies and percentages were calculated for coping categories and presented in tables and figures.
- Pearson's chi-square test was used to examine associations between coping category and selected demographic variables; chi-square values, degrees of freedom and p-values are reported in Table 4.9.

Summary

This chapter presented the descriptive findings and inferential analysis for 100 staff nurses. Most participants had average coping scores. None of the tested associations between coping category and selected demographic variables was statistically significant at $p < 0.05$.



SUMMARY, DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS

This chapter summarizes the study, discusses the principal findings in relation to previous studies included in the literature review, describes implications for nursing practice, education, administration and research, and presents recommendations.

Problem Statement

Objectives

Summary

The study used a quantitative, non-experimental descriptive survey design. A sample of 100 staff nurses working in COVID-19 areas of selected hospitals was selected using non-probability convenience sampling. Data were collected using a structured demographic questionnaire and a 24-item modified four-point Likert scale for coping strategies.

The sample consisted of 100 staff nurses who met the inclusion criteria and consented to participate.

Non-probability convenience sampling was used to select the participants.

Content validity was established through review by five experts from relevant nursing and allied disciplines. Split-half reliability was assessed, but the numerical coefficient is not documented in the available thesis record.

Major Findings of the Study

Section I – Sample characteristics

Findings related to sample characteristics

Age

Age: 76 (76%) staff nurses were aged 20–30 years, 21 (21%) were aged 30–40 years, and 3 (3%) were aged 40–50 years; none were aged 50 years or above.

Gender

Gender: 47 (47%) staff nurses were male and 53 (53%) were female.

Working Area

Working area: 28 (28%) worked in COVID ICU, 30 (30%) in COVID ward, 29 (29%) in COVID casualty and 13 (13%) in other COVID-19 areas.

Duty Hours

Duty hours: 26 (26%) worked 6-hour shifts, 33 (33%) worked 8-hour shifts, 23 (23%) worked 12-hour shifts and 18 (18%) worked more than 12-hour shifts.

History of illness

History of illness: 10 (10%) reported diabetes mellitus, 8 (8%) hypertension, 7 (7%) musculoskeletal disorders and 75 (75%) other conditions.

Experience

Previous experience: 76 (76%) had one year of experience, 17 (17%) had two years, 5 (5%) had three years and 2 (2%) had four years or more.

Type of Family

Type of family: 43 (43%) belonged to joint families and 57 (57%) belonged to nuclear families.

DISCUSSION

The principal finding was that 81% of the staff nurses had average coping scores, 17% had poor coping scores and 2% had good coping scores. This pattern is consistent with the broader literature reviewed in the thesis, which describes substantial psychological and occupational challenges among nurses working during COVID-19, while also identifying active coping, social support, organizational support and protective measures as relevant factors. For example, the reviewed studies by Al Muharraq and colleagues and by Labrague and Santos reported substantial fear or anxiety alongside the importance of protective measures, social support, resilience and organizational support. The systematic review by Fernandez and colleagues similarly emphasized supportive nursing teams and organizational responsiveness. These findings support the relevance of structured workplace support, while differences in instruments, settings and populations mean that the percentages should not be directly equated across studies.

Work schedule finding: Duty hours were distributed across 6-, 8-, 12- and greater-than-12-hour shifts, with 8-hour shifts being the most common category. The present study did not include a separate validated instrument for measuring the physical, psychological or emotional impact of work schedule; therefore, the finding should be interpreted as a description of work-schedule exposure rather than a measured causal impact.

Association finding: No statistically significant association was observed between coping category and age, gender, type of family, duty hours, working area, history of illness or previous experience at the 0.05 level. This is broadly compatible with some studies in the literature review that did not find consistent relationships between individual nurse characteristics and COVID-19-related psychological outcomes. However, the present study used a small convenience sample and several chi-square cells had small expected counts, so the absence of statistical significance should not be interpreted as proof that no relationship exists.

IMPLICATIONS

The findings have implications for nursing practice, education, administration and research. Because the study identified a substantial proportion of staff nurses with average or poor coping scores, implications should focus on supportive systems rather than attributing coping only to individual nurses.

Nursing Practice

- Nursing practice: hospitals can strengthen access to PPE, infection-prevention training, adequate rest periods, peer support, and clear communication about changing infection-control procedures. These measures are consistent with the needs described in the literature reviewed in this thesis.
- Nurses should receive regular opportunities to update knowledge and skills related to infection prevention, use of PPE, and management of occupational stress.
- Work organization should support safe staffing, appropriate rest and continuity of patient care.
- Nursing administration: duty rosters should be planned with attention to staffing availability, workload distribution, rest periods and continuity of infection-control precautions. Psychosocial support and referral pathways should be accessible to staff who report difficulty coping.

Nursing Education

- Nursing education should incorporate preparation for infection-control emergencies, coping strategies, communication, self-care, teamwork and use of psychosocial support resources.
- Continuing education can help staff nurses maintain current knowledge about infection prevention, PPE, changing protocols and evidence-based coping strategies.
- Education should also emphasize when and how to seek organizational or professional support when occupational stress becomes difficult to manage.

Nursing Research

- Future research should use larger probability samples where feasible and validated instruments for work-schedule burden, occupational stress and coping.
- Future studies should report complete reliability coefficients and detailed statistical assumptions so that findings can be independently interpreted.
- Intervention studies can evaluate staffing models, duty-schedule modifications, psychosocial support and infection-control preparedness.
- Research findings should be integrated into quality-improvement and preparedness planning where supported by evidence.
- Future research can examine associations between duty hours, rest periods, psychosocial support, infection-control preparedness and coping outcomes.
- The findings of the study can be presented in various local, state national and international conferences related to Medical Surgical Nursing.

DELIMITATIONS

- The study was limited to staff nurses working in COVID-19 areas of selected hospitals.
- The study used a non-experimental descriptive design and therefore did not estimate causal effects of work schedule.
- The sample was limited to 100 staff nurses selected by convenience sampling.
- The findings have limited generalizability beyond the study setting and sample.

RECOMMENDATIONS

- Based on the study findings and the limitations of the present design, the following recommendations are made.
- A similar study may be conducted with a larger and more diverse sample using probability sampling where feasible.
- Future studies may use validated instruments that separately measure work-schedule burden, occupational stress and coping strategies.
- Intervention or longitudinal studies may evaluate the effects of staffing, duty-scheduling, rest-period and psychosocial-support interventions.
- Similar studies may be conducted among other healthcare workers involved in infectious-disease care.

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TOOL

Code no:

Questionnaire for demographic data

1. Age	
a) 20-30 years	()
b) 30-40 years	()
c) 40-50 years	()
d) 50 years and above	()



2. Gender	
a) Male	()
b) Female	()

1. Working area	
a) Covid ICU	()
b) Covid ward	()
c) Covid casualty	()
d) Other	()

1. Duty hours	
a) 6 hours	()
b) 8 hours	()
c) 12 hours	()
d) More than 12 hours	()

1. History of illness	
a) Diabetes Mellites	()
b) Hypertension	()
c) Musculoskeletal disorders	()
d) Other	()



1. Previous experience	
a) 1 year	()
b) 2 years	()
c) 3 years	()
d) 4 years and above	()

MODIFIED LIKERT SCALE FOR COPING STRATEGIES BY (STAFF NURSE)

Code No:

SR.NO	COPING STATERGIES	NEVER	SOMETIMES	FREQUENTLY	MOST OF THE TIME	ALWAYS
PHYSICAL ASPECTS						
1	I try to focus on breath when I get palpitation.					
2	I try to relax my body, mind, soften eyes and brow					
3	I try to keep myself calm and quite					
4	I try to Gently Bring my Attention Back on Breath When Distracted and Start again					
EMOTIONAL COPING						
5	I try to encourage myself with other positive thoughts					
6	I admit to myself that I can't deal with it, and quit trying					
7	I have been getting emotional support from others					
8	I make sure not to worse by acting too soon					
SOCIAL ASPECT						
9	I get sympathy and understanding from someone.					



10	I ask help from other to pull me off from the situation					
11	I do not share my emotions with friends					
12	I ask people who have had similar experiences what they did					
13	I feel difficult to mingle with friends and Staff					
SPIRITUAL ASPECTS						
14	I put my trust in God.					
15	I do meditation					
16	I spend more time in spiritual activity					
17	I pray more than usual					
DIVERSTIONAL ACTIVITY						
18	I read newspaper, books, magazines.					
19	I engage myself in other work.					
20	I listen music.					
COGNITIVE COPING						
21	I try to see it in a different light, to make it seem more positive.					
22	I restrain myself from doing anything too quickly.					
23	I think about how I might best handle the problem.					
24	I try to analyse my problem before reacting					



Score-

1.	Poor	34 – 54
2.	Average	55 – 75
3.	Good	76 – 96