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RESEARCH ARTICLE

The Live Experiences of Nurses Caring for Patients Diagnosed with COVID-19 Infection in the North West Province

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Abstract:

Background:

Nurses are the frontline healthcare workers and continue to play a vital role in caring for patients diagnosed with COVID-19 infection. Exploring and describing the experiences of nurses caring for COVID-19 patients are significant to determine what nurses are experiencing physically, psychologically, and socially, in order to help them in improving the quality of patient care.

Objective:

The study aimed to explore and describe the live experiences of the nurses caring for patients diagnosed with COVID-19 infection in the North West Province.

Methods:

A qualitative, descriptive, phenomenological and contextual design was used to collect data. The study used a non-probability sampling approach and purposive sampling technique to select four focus group discussions (FGDs) in this study. Data were collected through semi-structured interviews, and analysis was done using descriptive phenomenological data analysis to develop themes and categories. Measures to ensure the trustworthiness of the study were considered throughout the study.

Results:

The results indicated nurses' conceptualisation of COVID-19, nurses' physical experiences of caring for patients diagnosed with COVID-19 infection, nurses' psychological experiences of caring for patients diagnosed with COVID-19 infection, nurses' social experiences of caring for patients diagnosed with COVID-19 infection, nurses' positive experiences of caring for patients diagnosed with COVID-19 infection, and nurses' experiences of coping when caring for patients diagnosed with COVID-19 infection.

Conclusion:

The study showed nurses caring for COVID-19 patients to be physically, psychologically, and socially affected by the disease. Therefore, they needed support from the managers, colleagues, family members, and the community.

Keywords: Live experience, Nurses, Caring, Patients, COVID-19, Disease.

1. INTRODUCTION

Nurses play an essential role in ensuring the continuity of healthcare systems globally and improving healthcare practices; they work on the frontline in fighting against COVID-19 infection [1]. COVID-19 is defined as an infectious disease caused by a new type of coronavirus associated with severe acute respiratory syndrome (SARS) [2]. The major symptoms of COVID-19 include fever, cough, dyspnoea, fatigue, muscle aches, headaches, loss of taste/smell, congestion, diarrhoea, or nausea [3].

Globally, nurses as frontline healthcare workers are faced with mental health burden when caring for patients diagnosed with COVID-19 infection [4]. Khatatbeh *et al*. [5] further indicated that nurses caring for patients with COVID-19 have greater risks of mental health problems, such as anxiety, depression, insomnia, and stress. Xu *et al*. [6] reported that during the outbreak, nurses who had close contact with

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COVID-19 patients experienced fears of being contaminated at work, and of becoming sick and dying. The same authors further indicated that some nurses reported that the infection or death of other nurses exacerbated their fear, creating serious anxiety and stress. Gordon *et al*. [7] stated that in addition to the fear of being infected themselves, nurses also expressed concerns about transmitting the infection to others, including their family members.

A study conducted on the COVID-19 pandemic [1] has revealed that nurses who are directly in contact with a potentially fatal virus have increased concerns about their personal health, which tends to make them feel stressed about continuing to provide care. Khatatbeh *et al*. [5] added that many physical problems have been reported by nurses caring for COVID-19 patients because they worked for long hours and were mentally occupied.

Caring for patients diagnosed with COVID-19 infection can cause a wide range of psychosocial and physical impacts on nurses because they serve under extraordinary stress due to the high risk of infection, stigmatization, understaffing, and uncertainty [5]. The stigmatisation faced by nurses caring for COVID-19 patients in their social lives has led to limitations in areas of their personal freedom [8]. Stigma is defined as a mark of disgrace that sets a person apart from others [9].

Ardebili *et al*. [10]. stated that feelings of helplessness, hopelessness, and becoming powerless are prevalent among nurses caring for COVID-19 patients. A study [11] revealed nurses to be both sad and stressed due to the morbidity and mortality of the COVID-19 pandemic. Lulgjuraj *et al*. [12] reported that despite the experiences and stress faced by nurses, many were proud to be on the frontline, and they saw themselves as being in a position to help when care seemed out of their control; as a result, nurses were proud of the lives that were saved. It is imperative that research be undertaken to determine what nurses are experiencing physically and emotionally to help nurses today and in the future [3].

2. METHODS

2.1. Study Design

This study used a qualitative, descriptive, phenomenological and contextual design to explore and describe the live experiences of nurses caring for patients diagnosed with COVID-19 infection in the North West Province.

2.2. Study Setting

The study was conducted at four selected public hospitals caring for patients diagnosed with COVID-19 infection in the North West Province.

2.3. Population and Sampling

The study population comprised nurses caring for patients diagnosed with COVID-19 infection in the NWP, including registered professional nurses, enrolled nurses, and enrolled nursing auxiliary. The target population was nurses who have been registered with the South African Nursing Council

(SANC) and currently employed in COVID-19 sites in NWP with more than one month of experience in caring for patients diagnosed with COVID-19 infection in NWP. A non-probability sampling technique was used to obtain a sample for the study.

2.4. Data Collection

Data were collected through semi-structured virtual focus group discussions (FGDs) *via* Google Meet, where an interview guide was used. Data collection techniques included the use of a voice recorder and field notes. A broad question was asked to all participants, "What are your experiences in caring for patients diagnosed with COVID-19 infection? And this was followed by probing questions based on the responses. Data were collected until data saturation was reached at the fourth focus group discussion. The names of nurses were not used. Data were collected from nurses caring for patients diagnosed with COVID-19 infection in four public hospitals of North West Province. From each public hospital's COVID-19 ward, 4 nurses (1 professional nurse,1 enrolled nurse, and 2 enrolled nursing assistants) caring for 21 COVID-19 patients were selected for focus group discussion. The interviews took a total of 45 minutes. Ethical approval was obtained from the North-West University Health Research Ethics Committee (NWU-HREC), with approval number: NWU-00309-21-A1.

2.5. Data Analysis

Data were analysed using descriptive phenomenological data analysis [13]. Data were transcribed verbatim from the collected data. An independent co-coder was involved and consensus was reached for themes and categories.

2.6. Measures to Ensure Trustworthiness

Credibility, dependability, confirmability, transferability, and authenticity were determined in this study to ensure the trustworthiness of the study [14]. Credibility was ensured through prolonged engagement with nurses and by collecting data using virtual focus group discussion. Purposive sampling and data saturation were used to enhance transferability [15].

3. RESULTS

Data saturation was achieved with a sample of four focus group discussions. A total of 26 nurses participated in the study. The FGDs of nurses consisted of professional nurses, enrolled nurses, and enrolled nursing auxiliary. The themes and categories of the live experiences of nurses caring for patients diagnosed with COVID-19 infection are presented in Table **1** below.

3.1. Theme 1: Nurses' knowledge of COVID-19

3.1.1. Nurses' conceptualisation of COVID-19

The study has identified that nurses seem to have an understanding of what COVID-19 is and also the symptoms of COVID-19. The following quotes substantiated this finding:

Participant 3 said "*COVID-19 is a large family of viruses that cause illnesses ranging from common cold to more severe diseases, like pneumonia, SARS and MERS.*"

Table 1. The live experiences of nurses caring for patients diagnosed with COVID-19 infection.

Main Themes	Categories
1. Nurses' knowledge of COVID-19	1. Nurses' conceptualisation of COVID-19
2. Nurses' experiences of caring for patients diagnosed with COVID-19 infection	2.1 Nurses' physical experiences of caring for patients diagnosed with COVID-19 infection
	2.2 Nurses' psychological experiences of caring for patients diagnosed with COVID-19 infection
	2.3 Nurses' social experiences of caring for patients diagnosed with COVID-19 infection
	2.4 Nurses' positive experiences of caring for patients diagnosed with COVID-19 infection
	2.5 Nurses' experiences of coping when caring for patients diagnosed with COVID-19 infection

Participant 4 said *"The signs and symptoms that are associated with the virus are fever, cough, body aches, and sometimes you also have headache. The virus when advances to stages, it happens to have signs of diarrhoea and loss of appetite, as well as loss of sense of smell."*

Participant 3 stated *"COVID-19 is an airborne disease that can spread from one person to another, and it affects your lungs and the upper respiratory system in most cases; some of the patients will struggle with insufficient oxygen to the lungs and to the brain that is when they get hypoxia."*

3.2. Theme 2: Nurses' experiences of caring for patients diagnosed with COVID-19 infection

The findings of the study revealed that nurses have different experiences in caring for COVID-19 patients. The nurses alluded that they have physical, psychological, and social experiences of caring for COVID-19 patients. The nurses further indicated their positive experiences and their experiences of coping when caring for patients with COVID-19. The following categories detail the experiences of nurses caring for COVID-19 patients.

3.3. Nurses' Physical Experiences of Caring for Patients Diagnosed with COVID-19 Infection

Nurses verbalized that as the result of caring for patients diagnosed with COVID-19, they ended up having physical problems, and some of the nurses indicated that they ended up having COVID-19 infection.

Participant 3 stated *"Physically, it has drained us, and it has left us with comorbidities; now I am hypertensive because of covid-19, of which I was not hypertensive, so now I have blood pressure that is always elevated, and it is not nice".*

Participant 4 said *"I do not have sense of smell since 2020 when it was started. It is depressing for me, I do not have sense of smell, and it is 2 years and half now, so COVID-19 has affected my health. My fear is that what if my sense of smell won't come back, it is not normal."*

3.4. Nurses' Psychological Experiences of Caring for Patients Diagnosed with COVID-19 Infection

The study revealed nurses to experience fear when caring for COVID-19 patients. Nurses reported being afraid of infection with COVID-19, and they felt that they would also die of COVID-19. Their fears and feelings are supported by the following quotes:

Participant 6 stated *"It stresses to go in there; you have to go inside there. You don't have a choice, you have to go inside and try to save somebody there. You might be infected, you might die with the very same person that you are going inside to try to save.*

Participant 3 said *"When we lost colleagues, I felt that we were all going down; that was the feeling, I felt like we are all gonna die."*

Participant 1 reported *"I am caring for patients with covid-19; psychologically, it affected me in this way because of seeing patients fighting for their lives every now and then and people are dying now and then in our hands. I have been diagnosed with depression, so I was depressed and had been taking medications for depression."*

3.5. Nurses' Social Experiences of Caring for Patients Diagnosed with COVID-19 Infection

The findings of the study further revealed that nurses were stigmatised and socially isolated because they were seen as carriers of COVID-19 infection. Nurses reported that people, including their colleagues working in non-COVID-wards and managers, did not want to be closer to them because they thought that they would infect them with COVID-19.

Participant 5 stated *"even with us, we were affected because you know when you go to the passage they know that you are working in COVID ward you are like an alien, people would run away from you. The night supervisor would just say put the report there by the entrance, that is the reality. That is how we worked. Management was not even coming, they were afraid of us just to come and say how are you feeling."*

Participant 6 reported*"and you felt as sometimes isolated when you get amongst other people and they just say you are a nurse, people just want to be scattered, they do not want to be next to you because you are a nurse and you might be having the infection; you might be infectious, and you might kill them because it was a disease that was drastic, a drastic disease that is causing death. When they see you, they just say this one is going to kill us."*

Participant 4 added *" the management did not want to enter our ward; they feared for their lives, so they would be standing at the door and calling you; even some of the colleagues knowing that we are working in COVID-19 ward, they would be standing at the door. It is not nice for us. It was very very bad. It was emotional to be neglected by management and colleagues from other wards."*

3.6. Nurses' Positive Experiences of Caring for Patients Diagnosed with COVID-19 Infection

The study also revealed some nurses to have shown compassionate care to COVID-19 patients. Nurses used their phones to video call patients' families because they were not allowed to visit during COVID-19; in addition, they reassured patients and prayed for them, and they further used their money to buy things that they thought could assist the patients in recovering from COVID-19.

Participant 2 said *"Sometimes I was buying for the patients the lemons, ginger, and garlic so that we can prepare for the patients. We even boiled them hot water every day when I was on duty so that they could drink hot water from the jars, not cold water. We mix that with the gingers and garlics so that they can all drink."*

Participant 7 stated *"When the patient is about to demise when the condition changes and maybe the saturation level goes down and you can see that the patient is dying, and we have tried everything, you know sometimes when they would speak you can see that they are scared, they long for that family member, so on my side what I would do is that I would video call the family members so that they can just say their last words and see the patient for the last time and say whatever that they need to say; I think because what a lot of family members say on its own brought a lot of closure because they can at least see that my father, my mother, or my sister is suffering. They can see that he/she is fighting, but chances are that they are not gonna make it, so that on its own brings closure."*

Participant 6 added *"We were just standing next to the bed holding their hands, reassuring them; even when you know the prognosis is not good, you reassure them to say that she is going to be okay. A lot of time we were just standing and praying for them."*

3.7. Nurses' Experiences of Coping when Caring for Patients Diagnosed with COVID-19 Infection

Nurses alluded that they had to accept, continue to be committed and care for COVID-19 patients. The following are the quotes from the participants:

Participant 1 said *"but I remembered that I said I solemnly…you see the nurses' pledge. I said okay, I am going to care for the patients, let me just be strong and do what I said I want to"*

Participant 5 *"but it is okay, but at least we did our best only God knows because it is not only about money, it is about caring, and reassuring the patients. We have played our part."*

Participant 3 *"it is a matter of saying okay, I am going to work, I don't know what I am gonna come across today but 'God help me."*

4. DISCUSSION

The findings of this study revealed nurses to be physically, psychologically, and socially affected when caring for patients diagnosed with COVID-19 infection. Nurses reported to have developed comorbidities, such as hypertension, since they started caring for COVID-19 patients. These findings are supported by the study conducted by Gholami *et al.* [16], who reported hypertension to be a prevalent comorbidity among nurses caring for COVID-19 patients. Khatatbeh *et al.* [5] added that nurses complained of having headaches and muscle pain, so they started using analgesics.

Furthermore, it was reported that nurses caring for COVID-19 patients had a fear of being infected and infecting others with COVID-19. The results of this study indicated that nurses were not sure whether they were the carriers of the COVID-19 virus, and it was not easy for them to go home because of the fear of transmitting COVID-19 infection to others. Nurses reported that it was so difficult to go home because they were not sure whether they were taking the virus home. In a study conducted by Galehdar *et al.* [17], nurses' experience showed that they could not have close contact with their family members because of the risk of being a potential carrier. The same authors are of the impression that nurses have always had fear and anxiety about being a carrier, and because of this, they may not be able to see their family members for several days.

In the study conducted by Galehdar *et al.* [17], one of the causes of stress in nurses was the fear of being infected with COVID-19. Hu *et al.* [18] added that nurses suffered from the fear of spreading the infection to their loved ones. These findings were also supported by Lee and co-worker [19], who reported that nurses were fearful that their contact with COVID-19 patients would result in the unintended infection of others, especially their own family. The findings of this study also revealed nurses to have a fear of dying. The nurses mentioned that when they saw their colleagues dying, they thought they were also going to die. Nurses verbalized that they felt powerless, helpless, and hopeless. They even thought to be failures because they could not save patients' lives. These results concur with the findings of Ardebili *et al.* [10], who stated the feeling of helplessness, hopelessness, and becoming powerless to be prevalent among nurses caring for COVID-19 patients.

The findings of this study showed nurses' experienced trauma to be related to sudden and multiple deaths of COVID-19 patients. These responses are in line with the findings presented earlier [20], which revealed that patient death is often interpreted as a traumatic experience for nurses, contributing to stress and other psychiatric symptoms. The study has also shown some of the nurses to no longer be the same people as they used to be; they reported to have developed long-term emotional effects, such as anger. The present study showed that nurses were stigmatised and isolated by their colleagues working in non-COVID-wards, managers, families, and the community because they thought the nurses to be carriers of COVID-19. These results are congruent with those of Muz and Erdogan [1], who stated that the isolation and stigma towards nurses by some members of the society continue. They further reported that such reactions of the society cause nurses to feel guilty and prefer a life that increases social isolation and restricts contact with the outside world. In a study conducted [11], nurses reported that they had moved away from social environments because of the risks of

being stigmatised by society and of transmitting the disease; hence, they felt isolated and lonely.

In this study, the findings revealed that COVID-19 has helped nurses to learn about some other equipment that they did not know about before, such as ventilation machines. The results of this study indicated nurses to have shown acts of kindness and care to COVID-19 patients, as shown by video calling the relatives to connect the patients with their families. Kellogg *et al*. [20] stated that nurses had additional responsibilities to use technology during COVID-19, such as smartphones or tablets, to allow patients to see their loved ones, provide updates to family, or facilitate goodbyes as patients came close to the end of life. The same authors further stated that nurses' use of technology was the link between patients and their families.

During the COVID-19 pandemic, effective coping strategies promoted positive psychological health outcomes among nurses [21]. Chow *et al*. [22] pointed out the importance of spirituality as a coping skill in the maintenance of psychological well-being for nurses during COVID-19 pandemic. The same authors maintained that positive religious coping remains a significant coping mechanism to boost mental health, commonly *via* prayers, attending religious services, reading scriptures, or meditation. The authors [22] also stated that spirituality was found to aid nurses in coping with stress, encourage recovery, resilience, and reduction in burnout, and reduce fear, sorrow, and anxiety in relation to the COVID-19 pandemic and consequent social isolation.

The findings of this study revealed nurses to have thoughts of resigning because of the trauma that they experienced when caring for COVID-19 patients. Nurses felt like they were in danger, and many left their jobs and resigned because of COVID-19. Kackin *et al*. [11] confirmed these results that nurses caring for COVID-19 patients had felt an extreme desire to resign, and they may also exhibit avoidance behaviour. In a study conducted by Lulgjuraj *et al*. [12], nurses reported that they have thought about leaving bedside nursing since experiencing the peak of the COVID-19 pandemic.

5. STRENGTHS AND LIMITATIONS OF THE STUDY

The study was conducted in the four hospitals of the North West Province caring for patients diagnosed with COVID-19. Due to the fact that this study was conducted only on nurses working in North West Province, the results of this study can only be generalized to the individuals included in the study. This makes it difficult to compare the experiences of nurses based on their culture with other provinces and other countries. Taking into consideration the fact that the COVID-19 pandemic is not limited to a single province or country, a global integrated comparative study is required that takes into account the experiences of nurses working in other countries.

6. IMPLICATIONS OF THE FINDINGS

The study findings confirm the nurses caring for COVID-19 patients to experience physical, psychological, and social problems. In this regard, providing them with the necessary support will encourage them to provide quality patient care.

CONCLUSION

This study reveals important aspects of nurses' experiences in caring for patients diagnosed with COVID-19; nurses have experienced fears of being infected with COVID-19, and they also have had fears of transmitting COVID-19 infection to their loved ones. The findings of this study can provide guidance for understanding the problems of nurses as frontline healthcare workers during COVID-19 and provide solutions for healthcare institutions to respond effectively to similar pandemics in the future.

AUTHORS' CONTRIBUTION

J.M.D initially drafted the manuscript. M.M.M and L.A.S assisted in the review of the manuscript, and all the authors agreed to publish the final version of this manuscript.

LIST OF ABBREVIATIONS

SARS	=	Severe Acute Respiratory Syndrome
SANC	=	South African Nursing Council
FGDs	=	Focus Group Discussions
NWU-HREC	=	North-West University Health Research Ethics Committee

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The study includes human participants, and the ethical approval of the study was obtained from the North-West University Health Research Ethics Committee (NWU-HREC), with the number: NWU-00309-21-A1.

HUMAN AND ANIMAL RIGHTS

No animals were used for studies that are the basis of this research. All the human procedures used were in accordance with the ethical standards of the committee responsible for human experimentation (institutional and national), and with the Helsinki Declaration of 1975, as revised in 2013 (http://ethics.iit.edu/ecodes/node/3931).

CONSENT FOR PUBLICATION

The participants were made aware of the data for publication and an informed consent has been obtained from them; their participation was, thus, voluntary.

STANDARDS OF REPORTING

COREQ guidelines were followed.

AVAILABILITY OF DATA AND MATERIALS

The derived data used to support the findings of the study are available from the corresponding author [J.D] on request.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

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