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Being a professional nurse at a south african rural-based hospital during the COVID-19 pandemic

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ABSTRACT

Background: The COVID-19 pandemic has affected all sectors and all individuals. However, the people most severely affected by the pandemic are the health care workers including professional nurses who are on the frontline in the fight against the COVID-19.
Aim: The aim of this study was to gain in-depth understanding of being professional nurse at a South African rural-based hospital during the COVID-19 pandemic.
Setting: The study was conducted at a rural-based district hospital in Vhembe District, Limpopo Province, South Africa.
Methods: The research followed an interpretative phenomenological analysis (IPA) design. Data were collected telephonically from nine purposively sampled professional nurses using in-depth individual interviews. Verbatim transcribed data were analysed thematically guided by an interpretative phenomenological analysis framework.
Results: The results indicate that professional nurses are confronted with death on a continuous basis, and the effects of witnessing a COVID-19-related death are visible in professional nurses' behaviour.
Recommendations: The results reflected the trauma experienced by professional nurses during the provision of care to the patients with Covid 19 which requires the services related to debriefing, psychological and emotional support from the hospitals.
Conclusion: The experiences of professional nurses warrant urgent support in order to ensure that they remain emotionally and socially stable and able to provide care to the patients. The finding has implications on the nursing profession, policy and provision of care to patients.

1. Introduction and background

The novel Coronavirus (Sars-Cov-2), also called COVID-19, which started as a localised outbreak in Wuhan China at the end of December 2019 had spread worldwide by March 2020 (World Health Organization, 2020). Since then, South Africa experienced an upsurge of COVID-19 cases and deaths. Initially, the disease pattern showed that cases were largely imported with sporadic local transmissions. However, the situation gradually changed to multiple local transmissions. By 2 January 2021, the cumulative number of COVID-19 cases in South Africa stood at 1 088 889. A new South African variant which contains a mutation known as N501Y, believed to make the virus more contagious than the previous variants, moved the country to a second wave. The South African variant also contains other mutations of concern, including E484K and K417N. This second wave hit South Africa badly, thus increasing the need for the services of professional nurses who are part of the health care system (National Institute for Communicable Diseases, 2021).

Professional nurses play a critical role in the country 's health care delivery system to facilitate continuous care and the containment of pandemics, such as COVID-19 (Chang et al, 2020). Studies revealed that professional nurses might have joined the field of healthcare with the understanding that the work would be hard; it is less likely that they fully understood what it would mean to work through the greatest public health crisis in a century (Hawari, Obeidat, Dodin, Albtoosh, Manasrah, Alaqeel & Mansour, 2020). The study conducted by Hawari, Obeidat, Dodin, Albtoosh, Manasrah, Alaqeel and Mansour, (2020) confirm the presence of significant fear and distress among professional nurses during the COVID-19 pandemic. Studies of related outbreaks, such as severe acute respiratory syndrome [SARS] and Middle East respiratory syndrome [MERS], demonstrated that in such scenarios, professional nurses who face an elevated risk experienced stress due to the fear of contracting the infection, stigmatisation and understaffing

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(Chang et al., 2020, Lee et al., 2018, Maunder et al., 2008).

This was further corroborated by a quantitative study which found that professional nurses treating COVID-19 patients were more vulnerable to mental health problems such as anxiety, depression, insomnia, and stress (Liu et al, 2020). The same findings were documented in a study published in JAMA Network Open, recording those Chinese professional nurses fighting COVID-19 had significant symptoms of poor mental health such as depression, anxiety, insomnia and psychological distress.

Another study conducted by Watkins, Rothfeld, Rashbaum and Rosenthal (2020) confirmed the stress among professional nurses, and further reported on the suicide of an emergency physician after the stress of being infected herself while trying to run an emergency resuscitation that could not help the many dying patients in its hospital rooms and hallways. The study went on to indicate that 2020 was a very unusual year, with nearly half of the American healthcare workers indicating that COVID-19 pandemic is harming their mental health (Watkins, Rothfeld, Rashbaum & Rosenthal, 2020).

The challenges faced by professional nurses during the COVID-19 pandemic were not only about caring for patients infected but also about getting infected and dying (South African Government, 2020). On 15 December 2020 during President Cyril Ramaphosa's presidential address, he indicated that over 38 000 public sector healthcare workers had tested positive for coronavirus and nearly 5 000 of them had been admitted to hospital while 391 died from COVID-19 (South African Government 2020). During COVID-19 pandemic public health measures were politically influenced in such a way that even hospitals without resources were managing patients with COVID-19 infection.

The number of Covid-19 cases in South Africa varies from province to province. On 28 December 2020, Limpopo province had 22 896 confirmed cases, 543 deaths and 19 607 recoveries were the least affected of all the provinces in South Africa. However, on the 7th January 2021, Limpopo saw its highest number of new infections since the start of the Covid-19 pandemic (NICD, 2021). According to the MEC, the province recorded 1 575 positive cases on 6 January, a sharp increase from the 900 cases in the previous reporting cycle. The hardest hit districts in Limpopo province were the Capricorn district with 623 new infections, and the Vhembe district with 408 cases. For Vhembe district, which is mostly rural, that number was alarming, especially because these people must access health care services in under-resourced hospitals to take care of patients with Covid-19 (South African Government News, 2020). The situation means that the professional nurses in hospitals who take care of patients with COVID-19 must take the responsibility of ensuring that such patients are taken care of in a proper manner to save their lives with limited resources. However, there are no studies conducted in the Vhembe district focusing on the experiences of professional nurses in the COVID-19 era. This raised the following questions: How is it like to be a professional nurse in a South African rural-based hospital during the Covid-19 pandemic era?

2. Aim

The aim of this study was to gain in-depth understanding of being professional nurse at a South African rural-based hospital during the COVID-19 pandemic. The objectives of the study were to explore on the experiences of professional nurses during the COVID-19 pandemic and explore the emotional and psychological impacts of the pandemic on professional nurses, focusing on death, and coping mechanisms.

3. Research design and method

The research followed an interpretative phenomenological analysis (IPA) design, since the purpose of the researchers was to gain an in-depth understanding of the experiences of professional nurses in a South African rural based hospital during the Covid-19 pandemic era. Interpretative phenomenological analysis design focuses on the interpretation of the experience of the participants. In the process, the researchers also interpreted the way in which the participants make meaning of their experiences without being channelled by pre-existing theories (Smith & Osborn, 2015). Since IPA is more relevant for highly complex and emotive experiences, the researchers deemed it the most relevant design for this study, as the COVID-19 pandemic is very emotive, specifically for professional nurses who risk their lives daily by caring for COVID-19 positive patients and for those whose status is unknown. The IPA design helped all participants to narrate their experiences. Although professional nurses might not all be affected or even infected with COVID-19, each one of them experiences the effects differently and interprets those experiences in their own unique manner. During the interview process, while the participants narrated their experience, the researchers also interpreted and analysed the participants' interpretation of their experiences which assisted in gaining in-depth understanding.

4. Setting

The study was conducted in one of the rural-based district hospitals in the Vhembe district with a bed occupancy of 220. The hospital employed about 99.9 % African staff and admits mostly African patients. Most patients who use the hospital are of low socio-economic status, mostly from more than 20 rural villages within the catchment area. However, some of the patients are from other villages in Vhembe district and the neighbouring countries such as Zimbabwe (Health e-news, 2017). The hospital was not initially designated to treat COVID-19 patients yet admitted many suspected and confirmed COVID-19 cases, despite it being not well equipped to handle such patients as the hospital does not even have an intensive care or high care unit (Eyewitness news, 2020).

5. Ethical considerations

Before recruiting the participants, the researchers obtained an ethical clearance from the University of South Africa, College of Human Sciences Research ethics committee, which is registered by South African National Health Research Ethics Council (Rec-240816–052). The ethics clearance certificate number: 90187598_CREC_CHS_2021 (The researchers also obtained permission to conduct the study from the Limpopo Provincial Department of Health (Permission number: P_2020-02–004). Finally, permission was granted by the study site (Ref: S4/2/1/1/3). The researchers had prepared an information leaflet which covers relevant ethics-related issues, information about the study, purpose of the study, inclusion criteria and issues of confidentiality and voluntary participation, as well as confirmation that there would be no renumeration for participating in the study. Regarding risks, such as emotional distress, the researcher offered to debrief the participants after the interview, and referral to a psychologist or other relevant therapists of choice should the need arise. The issue of minimising harm was also integral to the study, which was conducted telephonically to prevent the spread of COVID-19. All the above points were considered necessary in order to adhere to ethical requirements of research as documented by several researchers (Flick, 2018; Gray, Grove, & Sutherland, 2017).

6. Participants

The study participants were nine professional nurses working at a rural-based district hospital in the Vhembe district. As there is no stipulated number of participants in IPA since the focus is detailed analysis of each participant, the sample of nine was considered adequate. Smith, Flowers, and Larkin (2009) recommended a sample size of less than ten, while Smith and Osborn (2015) mention that the size is not important.

A non-probability snowballing sampling technique was used to recruit participants who meet the following inclusion criteria to ensure homogeneity: ability to speak Tshivenda, residing in the Vhembe district

and had been working in the hospital for more than two years, and worked for at least six months during the COVID-19 era. The initial participant was conveniently purposively recruited to participate due to her relationship with the one of the researchers. The participant then referred other professional nurses by providing their names to the researchers. These identified nurses provided the researchers with contact details until participant number nine was reached. All the participants were telephonically informed about all the relevant ethical issues and were given the opportunity to ask questions before providing verbal consent to participate in the study.

6.1. Data collection

Data collection was guided by an interview guide developed by the researchers based on the research question. The interview was composed of a grand tour question and some probing questions. Before the formal data collection commenced, a draft interview guide was piloted by interviewing one of the professional nurses from one of the hospitals, which is not a study setting in Vhembe district. The interview lasted only for 20 min as the researcher only used the grand tour question, and limited probing questions to those fitting the participant's response. Based on that interview, formal probing questions were written, and another professional nurse was interviewed using both formal probes, and further probes following participants' narrative of the experience. Both authors were satisfied with the process. The final interview guide was composed of the following key question and probing questions: *How is it like to be a professional nurse in a rural based South African hospital during COVID-19 pandemic? What type of support did you received? What was the worst moment? How does that make you feel? How did that affect you? What does that mean to you? What could be done differently? What are the opportunities?* Based on the interview guide, one of the researchers conducted the interview. Data were collected in February 2021. The opening statement of the interview after establishing rapport was "Kindly share with me how is it like to be a professional nurse in a South African rural based hospital during COVID-19 pandemic." Probing questions were guided by the participants' responses and formal probes where necessary. The researcher also used minimal encouragers such as: "and then, what happened, Ok, Ooh no, what else". Each participant's interview lasted between 45 min and an hour.

6.2. Data analysis

The audio recordings were sent to the second researcher who transcribed the interviews verbatim within 48 h of data collection and started the analysis. The transcripts were analysed individually by both researchers, using the IPA framework of data analysis described by Smith (2005). Each researcher read each individual participant's transcript thoroughly, highlighting the important points from the transcript and annotated the text, using a comments box. Individually, the researchers carefully studied the text written in the margin to come up with the emergent themes. Similar themes were grouped together, to help the researchers identify superordinate themes. The same process was followed for each transcript. After all the transcripts were thematically coded, each researcher looked at all the themes for each participant and came up with a table composed of superordinate themes, themes, subthemes and relevant quotations. The researcher hosted Microsoft Teams meetings (physical meetings were impossible due to COVID-19 lockdown regulations) to share their table of themes and discussed disparities until consensus was reached. The second researcher then consolidated the two tables of themes to come up with a master table of themes which guided the presentation of the results into narrative and analytic account supported by quotes from the participants (Smith & Osborn, 2015).

7. Measures of ensuring trust worthiness

Trustworthiness refers to the extent to which the study findings can be trusted (Korstjens & Moser, 2018).

- **Credibility**

Credibility refers to the truth value of the research findings and whether they accurately represent the participants' responses (Korstjens & Moser, 2018).

Credibility was enhanced with audio recordings of telephonic interviews. Responses of the participants were transcribed verbatim in a way that describes the participants' experiences accurately (Hammarberg et al., 2016). Furthermore, the two researchers compared themes to come up with the true reflection of what participants meant in the collected data.

- **Transferability**

Transferability refers to the possibility of the research findings to be applied by others in their contexts (Korstjens *et al.*, 2018). A clear description of the participants' contexts, experiences was recorded to assist the readers to decide if the findings are applicable to their settings or not (Korstjens *et al.*, 2018; Hammarberg et al., 2016).

- **Confirmability**

Confirmability is when other researchers can produce similar findings if they repeat or analyse the study data (Korstjens *et al.*, 2018). The researchers clearly outlined all the steps undertaken from the beginning until the end of the study.

- **Dependability**

To address the dependability issue more directly, the processes within the study have been reported in detail, thereby enabling a future researcher to repeat the work, if not necessarily to gain the same results.

8. Results

Results are presented in two sections, namely biographical data and experiences of professional nurses during the COVID-19 pandemic. Biographical data are presented to enhance the understanding of sources of data.

8.1. Biographical data

Nine professional nurses participated in the study, three males and six females. All participants had been nurses for ten years and which means that they worked before and even during the COVID-19 pandemic. Except for one widow, all are married. Participants followed different training paths to qualify as professional nurses. Three completed a four-year diploma which is offered at the nursing college, which allows for registration as general, psychiatric, midwifery and community nurse, two followed a bridging course which, after they had qualified as enrolled (staff) nurse, allowed them to study for two years to become a professional nurse while two obtained a university nursing degree. The last two completed a three-year Diploma in General Nursing.

Pseudonyms	Age	Gender	Number of years as a nurse	Qualification	Marital status
Livha	49	Female	15	0R.425 Four-year Diploma in Nursing	Married

(*continued on next page*)

(*continued*)

Pseudonyms	Age	Gender	Number of years as a nurse	Qualification	Marital status
Vhoni	46	Male	10	0R.683. Bridging course in General Nursing	Married
Tondi	52	Male	20	0R.683. Bridging course in General Nursing	Married
Anza	49	Female	39	0R.425. Bachelor of Nursing	Widow
Rina	44	Female	10	0R.425. Bachelor of Nursing	Married
Khawi	55	Male	20	0R.683. Bridging course in General Nursing	Married
Kundi	63	Female	30	0R.683. Bridging course in General Nursing	Married
Ori	39	Female	15	0R.425 Four-year Diploma in Nursing	Married
Mboni	46	Female	20	0R.425 Four-year Diploma in Nursing	Married

8.2. Experiences of professional nurses during the COVID-19 pandemic

Two superordinate themes, namely (i) confronted by death on a continuous basis, and (ii) the effect of witnessing COVID-19-related deaths on professional nurses.

Confronted by death on a continuous basis.

This superordinate theme is about COVID-19-related deaths which the professional nurses witness or hear about every day. It is made up of two themes: Death of patients who look healthy and death of people close/related to professional nurses.

Death of patients who look healthy.

Both participants are concerned about the death experienced in the ward related to Covid-19 infection. The number of patients dying creates more concern among the professional nurses, moreover, patients who die look healthy (which according to them is normally a sign of good health). Witnessing death is part of the daily life of professional nurses. This is because most patients would go to the hospital while in the terminal phase of their illness. However, COVID-19 made the professional nurses witness the death of people who looked healthy to them. This theme has three sub-themes namely, death of healthy people, death of young people and high number of deaths.

"Today, we had four people who died at once. It is so depressive because people look very health and fresh. It is not like other diseases where you know that the person was sick for a longer time". (Mboni)

"With these deaths, you do not even know how to convey the message to the family when they call, or when you are expected to call them to the hospital when they have been sent back from the gate by the security with the message that their relative is fine". (Ori)

Besides the fact that patients who died looked healthy, age became another issue for the participants as some who died seemed to be young below the age of 25; some were the same age as their own children. This was expressed by Tondi in the following excerpt:

"It's not easy as a parent you also think about your children more specifically when you see someone with same age with your child dying it's so scary. What makes everything worse is that the same patient who died came in walking on their feet and now he/she is gone". (Tondi)

Apart from their health status and age, the rate at which patients are dying at the hospital is overwhelming as far more than the usual number of deaths occur in the hospital each day.

"Normally in this hospital, we have a total death of 40 patients per month. But now, the picture has completely changed. Just in one week more than twenty patients, young and full of life have died in the COVID-19 ward. Some died before the results were even confirmed. sometimes you feel as if a miracle can happen for them to wake up. But they are gone for good. (Mbony)

The major issue to the participants is not only that the patients are dying due to COVI-19, and that they are seeing most of them for the first time, they are also witnessing the death of the people close to them, which was the second theme.

Death of people close to the health care professionals.

This theme focuses on the death of people close to the participants. It has three sub-themes namely: death of family members, death of friends and death of colleagues.

The people who died are not only strangers but also family members, as indicated in the following excerpt:

"My husband started coughing and was admitted to the hospital. He had mild shortness of breath and was put on oxygen. Within three days of his admission, I was called by the operational manager, to the ward where my husband was admitted. When I arrived, the sister started to cry without telling me anything. I concluded that my husband was no more. When I opened the screen, I saw that they had already covered him. It was as if I was dreaming. And that was the last time I saw my husband until he was driven to the graveyard by the mortuary car as we were not even allowed to view his body". (Anza)

While people, like Anza, witnessed the death of a spouse. Some of them lost their siblings:

"I had to witness the resuscitation of my sister who stopped breathing immediately when she was moved from the wheelchair to the casualty bed. I was screaming calling everybody to help. The doctor did all that he could, but at long last he had to stop as nothing happened. My sister died, just like that. It is like she will talk to me. The COVID test was done before she went to the mortuary. The results only came after she was already buried." (Khawi)

Similar experiences of losing siblings were also alluded to by Livha:

"We lost our family members, I lost a brother in COVID-19, he died in this very hospital where I am working. We did all we could, but he just died in front of my eyes. I felt so helpless." (Livha)

Besides witnessing the death of family members, others witnessed the death of their closest friends. One of the people who lost a friend is Kundi:

"We grew together. I was with her last week during her husband's funeral. My plan was that I would visit her again while I go off duty because I could not spend much time with her during the funeral because of level 3 COVID-19 regulation. I did not know that it was the last time I will no longer talk to her. I was just shocked when the night professional nurses were giving us the report in the morning mentioning her name, and that she was admitted during the night to COVID-19 ward and died after four hours." (Kundi)

While some participants shared the experiences of losing friends and relatives, all of them experienced a common contact – their colleagues. The death of colleagues seemed to have shaken many professional nurses, as seen in the following quote:

"I am very much afraid now. The sister in charge has passed on today with COVID-19. One staff member died last week Wednesday. The other nurse who was admitted last week, has complicated and is transferred to Polokwane Provincial hospital. I am even afraid to call the hospital to ask about her condition. I was talking to one of my colleagues asking, 'who is next' because we are dying." (Rina)

All the daily experiences of death by professional nurses impacted on their lives, which is the second superordinate theme.

8.3. Effect of witnessing COVID-19-related death on professional nurses

This superordinate theme highlights how managing patients diagnosed with COVID-19 and witnessing the death of patients and individuals close to them affected the lives of professional nurses. This superordinate theme comprises three themes: emotional response, sleep disorders, and psychosomatic disease.

Emotional response.

This theme focuses on the emotional health of professional nurses affected by nursing patients infected with COVID-19 or witnessing the death of such patients. The theme has four sub themes: denial, fear, depression, bargaining and despondency.

While the participants witnessed the death of various individuals, people they knew and acquaintances, some participants were in denial. This assertion is supported by the following reactions based on participants' excerpts:

"Sometimes when we are told that the colleague has died, while you were with the person the previous day joking and laughing, you feel like is a dream or a joke. With other people even today, I think that they are just on leave or weekend off. I can't believe that they are gone. Sometimes they will come back. I think I will believe when I see their grave." (Ori)

While some participants were in denial, other portrayed excessive fear (phobia). This is indicated by the following statements from one of the participants:

"The moment I reach home, I put off my shoes in the garage and go directly to the bathroom. I change my clothes and soak them in soapy water. When I am busy bathing, my children will be mixing and boiling my inhalation concoction and put it at the bathroom door for me. I will then steam myself. After my inhalation, I take a bath and put on fresh clothes. I want to make sure that I do not contact any of my family before detoxicating myself." (Ori)

Another participant expressed her fear in the following manner:

"My colleagues are dying. Four of my colleagues have died. Others are admitted being so critical. You just imagine yourself in that bed or being packed. Yooh, it is tough! You do not even know what you will hear tomorrow when coming back to work". (Mbony)

Some individuals were so afraid that they would not even go home when they were off duty:

"When I knock off, I do not even want to go home. I am always afraid that I might be infected, and I will infect my family member. Even at home, I always quarantine. So, I no longer sleep in the main bedroom with my husband but use the guest room. I feel that, if I am infected and die, at least he will remain taking care of my children." (Rina)

While some openly exhibited fear, others portrayed their fear through bargaining. The bargaining seemed to be mostly with God, as indicated by the following quotations from participants' transcripts:

"I pray continuously, before I touch a patient, when I am assisting a patient and also after work. I always invite God to send His angels to protect me and my family. Oh yes, God should protect us so that we could trust Him more." (Livha)

Some participants prayed alone, others prayed at work and there were those, like Anza, who involved her entire family in praying:

"Every day, before I leave home, I gather everybody in the family. We hold each other's hand and pray that God should protect me and ensure that I come home safe. When I am going to work, I will be playing gospel music to ensure that God protect me. If I am not talking to anybody, I will be singing Gospel song. That alleviate my fear. I know that, If I go nearer to God, God will have mercy on us." (Kundi)

While some prayed specifically for self-protection, others prayed to God to end COVID-19:

"The only book I read nowadays is the Bible. Even on TV, I no longer watch soapies and news. The only thing I watch is Gospel channels where they are teaching about the word of God. I want to feel my sprit with the word of God. I always want to be near God so that he will have mercy on me. Not only me but on us. I always say 'O God, have mercy on us. We are your children. It is only you who can defeat this monster (COVID-19) which is killing us like chicken'." (Mbony)

Besides bargaining, some participants responded with anger:

"Yooo, COVID-19 do not have mercy. With COVID-19, it does not wait for the washing to dry on the washing line, it is unhanged when it is still wet. When one is still thinking that, the person will grow and mature and care for my family, the person just dies young. Life is so unfair. The person who have created this virus is so cruel. I hate the country which manufacturer this virus." (Tondi)

Some participants displayed anger, while others felt completely despondent. The participants had problems when trying to look at the future through the face of the COVID-19 pandemic. Although they understood that anyone could die at any time, they felt that COVID-19 made death look different from what it used to be. Participants had the following to say in this regard:

"When you leave home, you are not even sure if you will go back alive. When you sleep, you are not even sure if you will wake up. Even if somebody asks about something for tomorrow, my answer is if God wants that to open. I am starting to believe what I first thought was a joke when people of Zion Apostolic Church, (kereke ya tshigubu) used to say that, it is through God's love that we are here. But what I can say now is that the axe is no longer put in the trunk of a tree, but is in the hands of cruel disease, which is killing everyone, young or old. And the axe is sharpened because, within a day or two of COVID-19-related symptoms, the person will be dead. Most of them die before the results are out, while some, the test is taken while they are already gone. So, I do not see any future." (Kundi)

"I was busy with my studies, but since the COVID-19, and seeing how professional nurses are dying and the people in the community, I have stopped studying. Why should I bother myself when I know that anytime I can die? Even at home, since last year, I have not done anything to finish the house I am extending. The issue is that, when people die, sometimes even the husband will follow. My children are still young. I am just banking the money so that, If I die, my mother will have money to remain taking care of my children." (Rina)

To other participants, the daily witnessing of people dying resulted in psychosomatic disorders, which is the second theme.

Sleep disorders and psychosomatic illnesses.

This theme presents the sleep disorders and psychosomatic conditions experienced by participants as a result of COVID-19-related illnesses and deaths. The theme comprises the following sub-themes: insomnia, nightmares, and signs and symptoms of COVID-19. The participants explained that they could not sleep while thinking about their experiences with the COVID-19 infection. The following quotations represent the experiences of participants:

"The pressure is so much. You are frustrated by patient, patient's relatives and even professional nurses and cleaners. It is too much in one's head. When I go home, I cannot even sleep. All the voices start playing into my head. I cannot even sleep for an hour." (Khawi)

"I only sleep for two hours. There after I will be thinking of work, what will happen if I die, and then I thought of having tea. Even if I drink with hot milk, or rooibos tea, which previously acted like a sleeping pill for me before, I do not sleep for more than three hours. I go home tired and go back to work tired." (Rina)

Other participants' sleep is distorted by nightmares:

"I cannot sleep at night. I always see the people who have died. Sometimes I dream of me in the coffin. Sometimes I even scream seeing people burying me alive. My husband will wake me up and say why am I screaming, then I would say I am dreaming." (Mbony)

Some participants assumed that they are infected with COVID-19 or have already suffered from it, as indicated in the excerpts below:

"I think I have suffered from COVID-19 already, but I did not consult. Some nights I just found myself being unable to breathe. I will wake up, go to the kitchen, drink my ginger, lemon and garlic drink and steam myself. I will drink all the medicines I know. In the morning, I would feel strong and go to work. But I have never tested. I think that if I get positive COVID-19 results, I will die not of the COVID-19, but of fear." (Kundi)

"Every day I develop the signs of COVID-19 like the patient I nursed, especially if the patient ends up passing on. Sometimes, I will have difficulty in breathing, sometimes severe chest pain. Sometimes sore throat, or a feeling like I am suffocating. Sometimes I feel like do not feel the taste of what I am eating. Sometimes general body pain. Yesterday I

was feeling so much pain, I just undress as I also felt that the clothes are making me feel so hot and they are so heavy. But when I fell asleep, when I wake up the pain is over. Sometimes I will only take allergex, hot water, or steam inhalation and the symptoms will disappear. But if it happens at work, I will consult, and the doctor will say everything is normal." (Kundi)

The findings presented above are discussed below.

9. Discussion of the findings

The study looked at the experiences of professional nurses during the second wave of COVID-19. The most eminent issues which emerged were related to high COVID-19-related death rates among healthcare workers and their patients; the death of old and young people who still looked very healthy on assessment coupled with the death of family members, friends and colleagues. This showed the impact that the pandemic has on the emotional and psychological wellbeing of professional nurses, as evidenced by feelings of insomnia, nightmares, depression and psychosomatic disorders related to COVID-19.

The rate at which COVID-19 is killing people means that professional nurses are confronted by death on a continuous basis. Death occurs very quickly after the onset of COVID-19 infection, even in respect of patients who still look healthy.

Khan (2021) in his study entitled "I am a nurse and I grieve" indicated that professional nurses experience death frequently due to the nature of their work. Unfortunately, death inevitably comes to the professional nurses, sometimes when expected and at other times when least expected. Naturally, professional nurses tend to develop a deep concern for those they are taking care of; thus, it hurts to watch a patient go and to have the knowledge of the inevitable reality that the family has yet to accept or believe.

Cevik and Kav (2013) emphasised that professional nurses are affected by the death of their patients; and indicated that there is a need to help professional nurses to explore and understand their attitudes towards death; overcome their fears; increase their communication skills and enhance their coping strategies.

The study conducted by Zheng, Lee and Bloomer (2018) also revealed that professional nurses are affected by the death of their patients in the ward; however, the study showed how this can be controlled. The study highlighted the use of intrinsic and extrinsic resources: the intrinsic resources consist of setting boundaries, reflection, crying, death beliefs, life and work experience, daily routines and activity; the extrinsic resources comprise talking and being heard, spiritual practices, educational programmes and debriefing (Zheng, Lee & Bloomer, 2018). However, if the professional nurses were to choose crying as a control measure, this might aggravate the situation. Given the rate at which patients are dying, the question might be asked, 'If 40 patients die in one week how many times should a professional nurse cry?' which shows that something should be done to help them overcome the challenge. What is common in the findings of this study and literature is that professional nurses are truly affected by the death of their patients; however, literature shows that there are other measures to be used to meet these challenges and frustrations, for example educational strategies for coping with death.

Unfortunately, this includes the death of the people who are very close to the professional nurses or their family members. This is seen as different from the death of patients, as outlined by the participants. A study conducted by Tucker and Czapla (2021) has classified the death of a loved one, severe illness and exposure to COVID-19 as traumatic stressors. This doubles the effect of death experienced by professional nurses – they witness the death of their patients; and among them are their family members, friends and colleagues which tends to affect their emotional and psychological wellbeing. All the daily experiences of death by professional nurses have an impact on their lives, as explained below.

The effect on professional nurses of witnessing COVID-19-related deaths has been described. The witnessing of death affects the professional nurses differently, ranging from emotional and psychological effects to sleeping problems. The emotional and psychological effects are denial, fear, depression, bargaining and despondency. Keogh, Jones-Berry, Kendall-Raynor and Hackett (2021) started a journal for posting the profiles of professional nurses who passed away during COVID-19 and they added that "they lost their lives while caring for and protecting patients", a very painful statement which supports the findings of this study. Some participants who witnessed the death of various individuals, including people they knew, and other participants were in denial. There were also those participants who portrayed excessive fear (phobia). In their report WHO (2020) alluded to frontline workers that are under exceptional stress, faced with extreme workload, difficult decisions to make, risks of becoming infected, spreading infection to families and communities and witnessing the death of patients.

Erickson and Grove (2007) however highlighted that nursing is an emotional job because professional nurses become emotionally involved when experiencing feelings for their patients. Furthermore, in addition to clinical nursing skills, end of life care involves skills in dealing with the patient and a grieving family. It demands emotional maturity from professional nurses. This implies that professional nurses will never run away when experiencing the death of patients and engaging with their loved ones coupled with the emotional and psychological context. The worst part is that during the COVID-19 pandemic death rates seem to double up which ends up creating fears among professional nurses. The more fear they experience, the more fear they develop in respect of their own death, and they then start to bargain. While some openly exhibit fear, others portray their fear through bargaining. The bargaining seems to be with God to help protect them from COVID-19. Some of them start to pray alone while at work or pray with family members. As the bargaining continues and death rates soar, depression sets in as there are no changes, despite their daily prayers.

In addition to bargaining, some participants respond with anger. While some participants displayed anger, others felt completely despondent. The participants had problems when trying to look at the future through the face of the COVID-19 pandemic. Although they understood that anyone can die anytime, they felt COVID-19 made death look differently from what it used to be. Salari, Khazaie, Hosseinian-Far, Khaledi-Paveh, Kazeminia, Mohammadi, Shohaimi, Daneshkhah and Eskandari (2020) conducted a study to systematically review and determine the prevalence of stress, anxiety and depression among frontline healthcare workers caring for COVID-19 patients. The results of this study clearly demonstrated that the prevalence of stress, anxiety and depression in frontline healthcare workers caring for COVID-19 patients is high. They therefore recommended that the health policymakers should take measures to control and prevent mental disorders in hospital staff. This concurs with the findings of this study where the participants revealed signs of mental illness. Early symptoms such as stress, anxiety and depression are triggered by their experiences related to COVID-19. Tucker, and Czapla (2021) indicated that COVID-19 has already led to diverse mental health problems including anxiety, depression, post-traumatic stress disorder and other trauma and stress-related disorders. The study indicated that mental problems differ depending on the main triggering factor, such as if a person has suffered from serious COVID-19 illness and potential death. Others are affected because, as family members and professional nurses, they have witnessed the suffering and death of others; individuals who have learned about the death or risk of death of a family member or friend due to the virus. Stressors among professional nurses include a lack of personal protective equipment (PPE); fears of exposure to the virus; burnout; patients taking a turn for the worse despite heroic efforts to save them; all of which concur with the findings of this study.

For other participants the daily witnessing of people's deaths led to sleep disorders. The participants explained that they could not sleep when thinking about their experiences with the COVID-19 infection. Insomnia, nightmares, signs and symptoms of COVID-19 were

highlighted as the main challenging experiences.

Wang, Pan, Wan, Tan, Xu, McIntyre, Choo, Tran, Ho, Sharma, and Ho (2020) in the longitudinal study on the mental health of the general population during the COVID-19 epidemic in China, discovered that the majority of healthcare workers who had been exposed to COVID-19 developed mental problems, such as anxiety and depression, and a minority developed physical symptoms of COVID-19. This shows that there is a close relationship between exposure to COVID-19 patients and psychological and emotional wellbeing, as identified in this study. Xiao, Zhu, Fu, Hu, Li, and Xiao (2020) also indicated that the COVID-19 pandemic induced stress levels for health workers, and high percentages of health workers are suffering from anxiety and depression which is in line with the findings of the study. The study findings of Song, Fu, Liu, Luo, Wang, Zhou, Yan, and Lv (2020) also indicated that being a nurse is associated with a higher risk of PTSD during the COVID-19 pandemic.

Buselli, Baldanzi, Corsi, Chiumiento, Lupo, Carmassi, Dell'Osso and Cristaudo (2020) pointed out that there is a need to develop tailored mental health interventions which are time-limited, culturally sensitive and can be taught to healthcare workers and volunteers during the COVID-19 pandemic. The study mentioned areas to be attended to which include typical and frequent psychosocial risk factors closely linked to the work environment; the safety and health of healthcare workers such as shifts, emergency management; daily challenges dealing with situations of extreme suffering and potential risk of episodes of verbal and/or physical aggression – the new COVID-19 experience. The findings of the study revealed that such programmes are not available; hence, professional nurses experienced trauma without anyone noticing it. This is the gap which needs to be filled in order to stabilise care of patients in the province.

The other frustrating part in rural hospitals have been presented underneath, which also lead to high mortality rates more specifically during the pandemics like Covid 19. Rural hospitals in South Africa face unique challenges in providing healthcare services, but they also offer distinct features that cater to the needs of local populations. These hospitals are integral to the healthcare system, particularly in underserved districts like Vhembe, and they play a crucial role in managing both common and complex health issues. Rural hospitals in South Africa generally provide basic healthcare services, with fewer specialized medical services available compared to urban facilities. Specialized care, such as advanced surgical procedures, intensive care, and high-level diagnostic services, are often unavailable or limited. This lack of specialized services forces rural hospitals to refer patients to larger regional or tertiary hospitals, which can result in delays in treatment, especially during emergencies or pandemics (Pillay, 2021:45).

Rural hospitals are often the first point of contact for patients seeking medical care. They provide essential primary healthcare services, including maternal and child health services, immunization programs, and treatment for common diseases such as tuberculosis and HIV/AIDS. Many rural hospitals are also tasked with managing community health programs, which include health education and prevention initiatives aimed at reducing the burden of diseases prevalent in rural areas, such as malnutrition and infectious diseases (Peltzer et al., 2012:38).

Rural hospitals often face challenges related to infrastructure and medical equipment. Many of these hospitals operate in outdated or dilapidated facilities with limited medical technology, which can hinder their ability to provide comprehensive care. For example, many rural hospitals in South Africa lack essential diagnostic equipment, such as X-ray machines and laboratory facilities. In some cases, they must rely on mobile clinics or outreach programs to provide services to remote areas (Nzimande et al., 2020:194).

Planning for future pandemics requires a focus on interventions, especially in hospitals located in remote areas. Rural hospitals frequently have difficulties, such as restricted access to medical supplies, a shortage of personnel, and poor infrastructure, all of which can worsen the effects of pandemics. To guarantee efficient reactions during public health emergencies, these hospitals' capabilities must be strengthened.

It's also critical to improve the supply chain management for necessary medical products. Due to their location and restricted access to wider distribution networks, rural hospitals frequently experience shortages and delays during medical emergencies (Tatem et al., 2020:342). During upcoming pandemics, these problems can be lessened by investments in strong supply chain management systems, such as collaborations with local hospitals and emergency supplies.

Important initiatives include enhancing staff retention in rural areas and providing training for healthcare professionals. High turnover rates and a shortage of specialist staff are common problems at rural hospitals, and they can get worse during emergencies. Offering incentives and improving opportunities for professional growth are two crucial strategies to draw in and keep healthcare professionals (Lutfiyya et al., 2012:1011). To make sure that rural hospitals are ready for upcoming epidemics, it is also essential to train personnel in infection control, crisis management, and pandemic preparedness (Morse et al., 2012:335). Pandemic preparedness can be further improved by community involvement and cooperation with regional public health organizations. Utilizing the robust social networks that are frequently present in rural communities can help to advance early detection, reduce the transmission of disease, and encourage compliance with public health protocols (Pigg, 2009:140). The effects of pandemics on rural communities can be lessened by fostering community resilience through education and preparedness initiatives.

10. Conclusion

Multiple studies have concurred that being a professional nurse during the COVID-19 pandemic is coupled with high probability of experiencing mental health problems. Thus, it is important to try to find out what should be done for professional nurses to help them cope with the death of patients and dealing with their emotional and psychological wellbeing. The study highlighted measures which can assist professional nurses.

11. Authors' contribution

All the authors named (at the beginning of this article) have contributed to the conceptualization of this study.

The authors confirm that the data supporting the findings of this study are available within the article [and/or] its supplementary materials.

Declaration of Generative AI and AI-assisted technologies in the writing process

During the preparation of this work the author(s) used [ChatGPT SERVICE] in order to [help in language editing]. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the publication.

CRediT authorship contribution statement

A.H. Mavhandu-Mudzusi: Investigation, Data curation, Conceptualization. **P.R. Risenga:** Writing – review & editing, Writing – original draft, Formal analysis, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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