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**An assessment of the staffing challenges faced by eThekweni district
healthcare workers during the Coronavirus pandemic period.**

by
Siphesihle Mkhize
993211390

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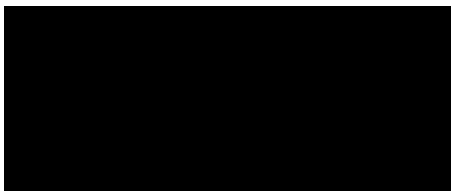
Name: Siphesihle Mkhize		No: 993211390	
Study Title: An assessment of the staffing challenges faced by eThekweni district healthcare workers during the Coronavirus pandemic period			
Qualification: Master of Business Administration		School: GSB&L	
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Supervisors Name: Professor E Mutambara			
Supervisors Signature: 			
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Abstract

Staffing is one of the important managerial functions in an organisation, and the other managerial functions revolve around staffing, especially in the healthcare sector. Staffing involves human capital management and knowledge management, and it is not merely recruiting, performance appraisal, promotion, and inter-departmental transfers. The disruptions that the coronavirus pandemic brought were not limited to the national governments, but also at the provincial, local, and regional levels of government were affected. This study assessed the staffing challenges faced by the eThekweni district healthcare workers in South Africa during the coronavirus pandemic period and the study objectives were, to make an assessment on the level of coronavirus pandemic related staffing challenges, to make an assessment on management's response to coronavirus pandemic related staffing challenges in the eThekweni district health system, and to determine the extent to which healthcare workers were affected by coronavirus pandemic in the eThekweni district.

The study aimed to assess the staffing challenges that the eThekweni healthcare personnel faced and the eThekweni health district managers' response these challenges during the initial and latter waves of Covid-19 infections in South Africa.

The researcher used qualitative descriptive phenomenal study design, and the nonprobability purposive sampling was done on the study population of twenty healthcare workers and healthcare managers at Osindisweni hospital, Prince Mshiyeni Memorial hospital, and Inkosi Albert Luthuli hospital. Data collection was obtained through interviews, and triangulation was done using different technologies in data collection. The challenges that the eThekweni district healthcare workers experienced were not limited to the coronavirus infections complications such as covid pneumonia and death, but also psychological sequelae and burnout.

The study showed the coronavirus pandemic impacted human capital and human capital management due to staff shortages, affecting healthcare services delivery. The study indicated that there was healthcare workers neglect and lack of support from the higher echelon's structures. The study showed the crisis leadership gap, the need for the government to invest in leadership training, bolster human capital management skills and adequate employee assistance programmes. More research on the coronavirus vaccine effectiveness is needed.

Acronyms

NICD	National Institute of Communicable Diseases
CDC	Centre for Disease Control
WHO	World Health Organisation
SA	South Africa
DOH	Department of Health
COVID-19	Novel Coronavirus 2019
PPE	Personal Protective Equipment
NHLS	National Health Laboratory Services
KZN	KwaZulu-Natal
SAMRC	South African Medical Research Council
HIV	Human Immunodeficiency Virus
ICU	Intensive Care Unit

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Chapter 1

Introduction

The crises that have been seen and examined are economic crises, natural disasters and political instability and hostile environments (Newman et al., 2023); but now that there has been a global health crisis brought on by the coronavirus pandemic, it is important to also delve into it. Staffing is a managerial function of recruiting, selecting, training and development of the organisational personnel (Venkatakrishnan, 2016). Organisational performance initially relies on staffing, without which there would be no production or service provision. Staffing is continuous management function, done at all managerial levels to ensure that organisational activities are carried out (Venkatakrishnan, 2016). There is therefore no organisation that can function effectively without staffing.

Staffing is not limited to private entities, organisations, and recruitment agencies, but it is also applicable to national governments. Staffing involves human capital management and knowledge management, and it is not merely recruiting, performance appraisal, promotion, and inter-departmental transfers (Christianingrum et al, 2023). Staffing can be a very daunting task during a crisis, requiring crisis leadership skillset, and this is because the spotlight turns to be in the organisation's leadership during any form of crisis (Christianingrum et al., 2023). Leadership is an individual or a collective capacity to guide members of an organisation through influence, while crisis leadership is a process leaders use to resolve unforeseen events threatening not just organisational growth, but also the very life of an organisation (Dumitrovska et al. 2023).

This study, titled “**An assessment of the staffing challenges faced by eThekwini district healthcare workers during the Coronavirus pandemic period**”, assesses the staffing challenges that healthcare workers at the eThekwini health district were faced with during the peak period of the coronavirus pandemic.

The discussion in this chapter includes background of the study, the focus of the study, the aim of the study, the study objectives, the study significance, and the structural overview of an entire study.

1.2 Background

The eThekweni health district, under the KwaZulu-Natal health department, spans from Ilembe district on the north, Ugu district on the south and Umgungundlovu district on the west. The healthcare services are shared between the provincial government (60%) and the local authority (40%) which is eThekweni municipality; and caters for 3.9 million people (KZN HEALTH, 2023:1). The eThekweni health district has seventeen hospitals, but the focus will be on Osindisweni, Prince Mshiyeni Memorial and Inkosi Albert Luthuli hospitals, as some of the hospitals within the eThekweni health district in which the study takes place. Osindisweni hospital is a district hospital in the north of eThekweni health district, servicing the northern communities, and with a catchment population of over 580000 in the Ndwedwe area and north local council district (KZN HEALTH, 2023, 2023:1). Prince Mshiyeni hospital is a regional hospital facility with one thousand and seventy-five beds, that serves the surrounding areas south of eThekweni, and Inkosi Albert Luthuli hospital is a tertiary hospital servicing the entire province of KwaZulu-Natal and parts of the Eastern Cape province (KZN HEALTH, 2023:1).

The three institutions where the study takes place have vastly different resources and while they all operated during the coronavirus pandemic, Inkosi Albert Luthuli was not taking patients diagnosed with the coronavirus into their specialist care, whereas Osindisweni hospital and Prince Mshiyeni Memorial hospital were both the testing and treatment facilities during the coronavirus pandemic. The challenges faced by the healthcare workers in these institutions are therefore assumed to be somehow different due to the different levels of care that they render in eThekweni health district.

1.3 Problem statement

The South African public health system is riddled with human capital shortages, and the coronavirus pandemic has brought about the same problem globally. It is imperative to assess the problem in the South African context and ascertain the extent to which the eThekweni district healthcare workers are affected by this phenomenon. It is important to identify the challenge that the healthcare workers face during the pandemic so that appropriate laws and policies are drawn up by the policy makers to avert them should the pandemic or another healthcare crisis occur. The coronavirus pandemic brought many challenges to both the public and the private healthcare systems, and since the challenges that the coronavirus pandemic brought were seen from the first to the third world countries (Bojdani, 2020; CDC, 2020; WHO,

2020; Kelly et al., 2021 and Lacobucci, 2022), it will be interesting to see if there are differences in these challenges depending on where they occur in different levels of healthcare in the eThekweni health district. The coronavirus pandemic brought about healthcare personnel staffing shortages in both the private health sector and the public health sector (CDC, 2022; Chervoni, 2022 and Lacobucci, 2022). Healthcare workers refer to the healthcare personnel delivering healthcare services to the sick, either directly or indirectly (Joseph and Joseph, 2016; and Cato, et al., 2020). Medical doctors and nurses are directly involved with patient care, the allied health care workers such as radiographers, dietitians, social workers, speech therapists, psychologists, physiotherapists, and occupational health therapists, provide adjuncts or indirect medical care services (Joseph and Joseph, 2016; and Coto et al., 2020).

The appropriate assessment and management of patients require adequate resources, not just human capital but also good infrastructure and adequate medical equipment (Kwizera et al., 2012; Abuown et al., 2020; Aznavorian, 2020 and Chervoni, 2022). The government resources were by the coronavirus pandemic, resulting in the staff shortages in the public health system (Malelelo-Ndou et al., 2019; Malakoane et al., 2020 and Chervoni, 2022). Medical staff and medical equipment shortages in the public healthcare system is an endemic problem in South African (RHAP, 2016 and Malakoane et al., 2020), resulting in staff burnout and poor healthcare service delivery (Malakoane et al., 2020). The eThekweni health district is the largest district of the 11 health districts of the KZN department of health, servicing the metropolitan municipality of eThekweni, and it is not immune to South African public health system challenges.

The coronavirus pandemic (Covid-19) healthcare burden has affected global public health systems and healthcare workers, not just in the third world countries. South Africa, as part of the global community was not spared from the effects coronavirus pandemic. The healthcare managers in respective hospitals had to deal with not only the shortage of personal protective equipment to provide to their human capital but they also had to deal with human capital inadequacies. The South African national department of health got support and services of the Cuban doctors as means of averting the country's scarce skills and human resources problems (Mvumvu, Timeslive, 2020 and Stiegler and Bouchard, 2020).

The World Health Organisation and the National Institute of Communicable Diseases had given protocols and guidelines that people who were coronavirus infection symptoms had to

self-isolate after testing (NICD, 2020 and WHO, 2020). The test that had been advocated for testing the coronavirus infection was the polymerase chain reaction (PCR) test (CDC, 2020; NICD, 2020 and WHO, 2020). The PCR test results' turnaround time was on average 3.9 days in the public sector, whereas it was one day in the private sector, and KZN had the highest average turnaround time of close to a week (NICD, 2021), and this exacerbated staff shortages in public health care facilities. There were healthcare workers who contracted the coronavirus infection, most had mild to moderate disease, but others had to be admitted to hospitals and some succumb to the disease. In contrast, others had to be in isolation, which was initially set to be fourteen days, later reduced to 10 days from the day of testing as announced by the then national health minister, Dr Zwelini Mkhize, on the 17th of July 2020 (SA Department of Health, 2020 and Kelly et al., 2021).

It should be noted that some healthcare workers were living together, and as such, if one had tested positive for the coronavirus infection, the other would need to isolate, monitor the symptoms, and get tested if becoming symptomatic. This further worsened the already burdened public healthcare personnel and presented the healthcare managers with human capital management challenges (Abuown, et al., 2020; and Kelly et al., 2021 and Chervoni-Knapp, 2022). Furthermore, the healthcare worker needed to be in quarantine for up to ten days or even 14 days should their test become positive for the coronavirus depending on the guidelines followed at the time.

The studies that have been conducted showed that the coronavirus pandemic affected staffing levels (Abuown et al., 2020; Chervoni, 2022 and Rosenback et al., 2022), but there had not been numerous studies conducted in South Africa, except for the studies indicating endemic issues (Ferrer et al., 2014; Rispel and Blaauw, 2015; and Malakoane et al., 2020). The studies that had been done in South Africa indicate historical and endemic problems not limited to inadequate human capital (Ferrer et al., 2014; Rispel and Blaauw, 2015; Malakoane et al., 2020; Ndlovu et al., 2021; and Willie and Maqbool, 2023). The lack of adequate human capital and human capital management failures lead to increased workload giving rise to inappropriate medical assessment, poor nursing care and inadequate management (Ferrer et al., 2014 and Malakoane et al., 2020). The coronavirus pandemic period saw an increased number of respiratory infections related hospital admissions, which occurred when there were already human capital shortages in the public health system. The district hospitals generally have high staff turnover challenges of high, high absenteeism rates and knowledge capital shortage

(Couperi et al., 2005; Mudaly and Nkosi, 2013 and Jonas, 2022) and the coronavirus pandemic period must have had worsened this problem, and not many studies done in South Africa had the issue looked at.

The initial phase of Covid-19 vaccination in South Africa was done through a pilot study to healthcare workers by the South African Medical Research Council (SAMRC, 2020). Johnson and Johnson vaccine was used as part of the Sisonke study by the SAMRC. The vaccination against coronavirus did not eliminate the risk of infection, it however reduced coronavirus infection severity, hospitalisation, and mortality (Keller, 2021). The Centre for Disease Control released newer guidelines for post vaccination infection control, and the fully vaccinated healthcare workers did not have to isolate even after high-risk exposure unless symptomatic (CDC, 2021). Therefore, the expectation was that the third and subsequent coronavirus pandemic waves would not lead to an increased sick absenteeism resulting in further human capital shortages (CDC, 2021).

The coronavirus pandemic put to the test the leadership acumen of leaders in both the private and public healthcare systems. The coronavirus pandemic brought about the crisis, not just in the healthcare sector, but all sectors were affected, and this necessitated crisis leadership from government and private entities. An organisational crisis is the less likely event that has a high negative impact, even threatening the very existence of an organisation; and once it occurs, ignoring it would be an organisation's biggest mistake (Preemjath and Mutambara, 2022; and Dimitrovska et al., 2023).

Crisis leadership has been the widely spoken phenomenon due to the coronavirus pandemic. The coronavirus pandemic has brought about an increase in the focus on crisis leadership, especially in the public and private health sectors (Sriharan et al., 2021). Effective leadership is never devoid of crisis leadership acumen, and the coronavirus pandemic has shown that for effective leadership to take effect in an organisation, leaders ought to be best equipped to make decisions and navigate challenges brought by crisis situations (Firestone, 2020, Christianingrum et al., 2022 and Riggio and Newstead, 2023). Crisis leadership is not merely navigating an organisation out of a crisis, but also proactivity in preparing an organisation for the crisis response before it happens and includes dealing with a crisis in ways that account for the contextual and dynamic nature of the crisis, human needs, emotions, and behaviours of

people implementing strategies which involve preventing, mitigating, and recovery from crises. (Firestone, 2020 and Sriharan et al., 2021).

Staffing, especially during a crisis, is part of crisis management; and crisis leadership and crisis management are necessary for effective and efficient organisational leadership navigation through a crisis (Firestone, 2020, Kok and van den Heuvel, 2019, Sriharan et al., 2021 and Riggio and Newstead, 2023). The coronavirus pandemic needs leaders with crisis leadership acumen and crisis management structures to be set up and put into action to navigate the countries out of the crisis that the coronavirus pandemic brought. There is a danger in being seen as uncaring and unemphatic on the part of the governing authorities if nothing is done about the knowledge that will be obtained from this study, and there will be the repeat, even at higher scale, of the complications of such apathy should the pandemic or other crisis hit our shores.

1.4 Study aim

The aim of the study was to assess the staffing challenges faced by the eThekweni healthcare workers during the coronavirus pandemic period. The interviews were conducted among the healthcare workers of three hospitals in the eThekweni health district. The study aimed to also seek eThekweni health district managers' response to healthcare workers' challenges during the initial and latter waves of Covid-19 infections in South Africa.

1.5 Objectives of the study and questions

The South African public health system is riddled with human capital shortages, and the coronavirus pandemic has brought about the same problem globally. It is vital to assess the problem in the South African context and ascertain the extent to which the eThekweni district healthcare workers are affected by this phenomenon. The coronavirus pandemic brought about the volatile period in the healthcare services sector. It is vital to ascertain the challenges that eThekweni healthcare workers faced, but it is critical to explore the role that the leadership played during the crisis period of the coronavirus pandemic. The study objectives were as follows:

- To make an assessment on the level of coronavirus pandemic related staffing challenges.

- To determine appropriate coronavirus pandemic interventions eThekwini district health system had during the coronavirus pandemic and if the pandemic were to recur.
- To make an assessment on management's response to coronavirus pandemic related staffing challenges in the eThekwini district health system.
- To determine the extent to which healthcare workers were affected by coronavirus pandemic in the eThekwini district.

Interview schedule.

1. How did the first, second, third and fourth waves of the coronavirus pandemic period affect healthcare workers staffing in your department?
2. What appropriate coronavirus pandemic interventions did you have?
3. Were there problems related to the coronavirus interventions availability or lack of access during the same period?
4. How did you manage healthcare worker coronavirus infections related staffing problems in view of confidentiality?
5. What impact did healthcare workers staffing challenges have on the healthcare service delivery?
6. What would be appropriate staffing challenges management in the future, drawing from the lessons learnt during the coronavirus pandemic?

1.6 Methodology

The researcher uses the nonprobability purposive qualitative study method for this research, with twenty participants from three hospital sites, Osindisweni district hospital, Prince Mshiyeni Memorial hospital and Inkosi Albert Luthuli hospital. Data collection was through structured interviews. Thematic analysis was used for to analyse data by Colizzi's model.

1.7 Study significance

The significance of this study involved the researcher, the eThekwini municipality and its community, the health department, and the workers. The information obtained from this study contributed to the body of knowledge concerning the impact of human capital shortages in the public health institutions during the coronavirus pandemic period, and the resultant impact on

healthcare service delivery. This study will contribute to the field of knowledge in human resource management, strategic management, and health management.

The study would help policymakers, political leaders, and healthcare managers in eThekweni health district to devise programs to effectively deal with subsequent times of crises and the leaders and policymakers enhancing their adaptive leadership, crisis leadership and crisis management skills to deal with subsequent coronavirus pandemic challenges and any other pandemic or crisis in the future.

The study significance for the department of health was that it showed how to better prepare for the subsequent crisis and pandemics, human capital related challenges resulting from any crisis or pandemics. The department of health would learn to enact human capital management policies to address the challenges that this study revealed.

The study significance in relation to the healthcare workers was that it illuminated the human capital gaps, and it is hoped that these shortfalls will be better addressed for the benefit of healthcare personnel.

The study significance for the community of eThekweni was that health worker staffing challenges were identified, the means to address them outlined, and the community will be better served by the subsequent leaders in times of other crisis and pandemics in this world of uncertainty (Kok and van den Heuvel, 2019, Riggio and Newstead, 2023). The negative impact of pandemics such as the coronavirus pandemic will be averted resulting in not only improved patient care, healthcare services delivery, decreased patient morbidity and mortality, but also improved occupational health services.

The study significance for the workers was that they will have a far better understanding of their rights in situations of crisis, pandemics and in relation to leave of absence due to ill-health or challenges emanating from pandemics. The researcher gained substantial knowledge in the critical area of leadership in crisis situations, dealing with surge capacity issues and thus better prepared for the leadership roles ahead.

1.8 The study structure

Chapter 1

Introduction

This chapter outlines the background of the study, giving research aims, study objectives, study significance and the contribution to the body of scientific knowledge.

Chapter 2

The review of literature

The focus of this chapter was on the review of literature concerning the effects of the coronavirus pandemic on the public and private health care sector workers, and the impact this had on the delivery of health care services. The theoretical framework and its relevance to the study.

Chapter 3

Methodology

This chapter outlines the methodology the researcher used to conduct this study, which necessitated an intrinsic pilot study and the reasons informing the study design, the limitations of the study.

Chapter 4

Data analysis

The research findings are presented in this chapter, and the discussion of the results is done according to the study objectives. The demographics have been neglected as informed by the pilot study done in maintenance of confidentiality.

Chapter 5

Recommendations and conclusion

This chapter gives an overall view of the study conducted, the recommendations as informed by the research findings and opportunities for more areas of research.

1.9 Conclusion

This chapter gives insight into the background of the eThekweni health district, the three study sites and the staffing challenges in the public health sector and the globe in which the eThekweni health district is not immune. The objectives of the study aim to assess and ascertain the challenges that the eThekweni district healthcare workers faced during the coronavirus pandemic period and obtain the leadership response to these challenges at different levels. This chapter also has a brief discussion on the research methodology and the dissertation structure.

Chapter 2

Literature review

2.1 Introduction

Literature review is a vital component of any research paper, as it avails the current literature on the given topic following which contextualisation is done, leading to a particular view or point of view to be adopted by the researcher (Creswell and Creswell, 2018). The coronavirus pandemic affected not only the global health care systems but also all corporate functions and systems across different organisational structures. The coronavirus pandemic presented a global health crisis that necessitated leaders to come forth and navigate their organisations and nations through the pandemic and that required multifaceted leadership skills and functional capital management systems to ensure that appropriate and adequate staffing is always ensured, especially in the health sector (Chevroni-Knapp, 2022).

2.2 Staffing

Staffing forms part of the broader human capital management in an organisation. Human capital management is not only the sole responsibility of human resources department, but the entire organisational leadership (Newman et al., 2023). Staffing is the management responsibility of ensuring adequate availability through attracting, selecting, and retaining human personnel to achieve organisational mandate (Newman et al., 2023 and Pradhan et al., 2023). Staffing is ensuring that the enough human capital is available for specific time in a day, week, or month in a particular health department domain, and it is where transactional leadership is observed in the health sector (Newman et al., and Riggio and Newstead, 2023).

The human capital challenges and other staffing related problems due to natural disasters or global pandemics, like the coronavirus pandemic do not announce their coming. A crisis is a sudden and unexpected event or series of events bringing about uncertainty and organisational functions disruptions (Kok and van den Heuvel, 2019; Aznavorian, 2020; Firestone, 2020, Riggio and Newstead, 2023). The shortage of medical equipment and inadequate human capital challenges in South African public health system are a historical problem (Rispel and Blaauw, 2015; RHAP, 2016; Malelelo-Ndou et al., 2019 and Malakoane et al., 2020). The DOH proposed National Health Insurance (NHI) may not be achievable under these circumstances unless drastic measures are put in place. The South African public health system has an extensive nursing crisis, characterised by widespread inadequate nursing human capital, skilled

labour shortages, and a substantial increase in workload (Rispel and Blaauw, 2015; Malelele-Ndou et al., 2019 and Malakoane et al., 2020).

The public health sector has therefore been plagued by challenges ranging from inadequate resources to poor patient management and healthcare service delivery (Ferrer et al., 2014 and Malakoane et al., 2020). This study looked at the challenges related to the coronavirus pandemic period in the eThekweni health district.

2.3 Coronavirus pandemic related staffing challenges

The health department human resources challenge dates back numerous years, and the coming of the coronavirus pandemic did not make matters any better. The Free State province study found that human capital shortages, financial management problems, and healthcare services fragmentation were some of the significant challenges (Malakoane et al., 2020).

Nursing managers pointed out that human capital and human capital management challenges during the coronavirus pandemic, and these were compounded by the substantial number of frozen healthcare workers posts, predating the coronavirus pandemic (Moyo et al., 2022). The South African public health system has a general inadequate human capital, it is not just the nursing staff and doctors, but also allied healthcare workers such as pharmacists, and this problem is worse in rural districts (Couperi et al., 2005 and Golozana, 2020).

Human capital shortage in the South African public health system is an ongoing problem in South Africa, and this followed the moratorium on the filling of vacant posts by the provincial health departments (Rural Health Advocacy Project, 2016). The Democratic Nursing Organisation of South Africa (DENOSA) had urged the government to employ qualified healthcare workers (Radebe, 2021).

The protest by the DENOSA Student Movement on unemployed post-community service nurses who had not been employed by the provincial health departments indicated a reluctance to filling of staff vacancies, even during the pandemic period (Ntseku, 2021). The Western Cape government motivated the national government for the employment of unemployed nursing staff to help with the coronavirus pandemic fight (Western Cape Government, 2021).

The coronavirus pandemic occurred when the public health system had ongoing problems related to but not limited to inadequate human capital. There had not been many studies conducted to assess the impact of the coronavirus pandemic on staffing in South Africa. The studies that have been done in other parts of the world indicated that the coronavirus pandemic disrupted healthcare service delivery, and staffing models' modifications had to be done (Dunn et al., 2020). Healthcare workers were reallocated posts to critical care and medical emergency departments. There was a contradicting finding in that the length of ICU stays, and mortality rate did not get affected by intensive staffing (Nizamuddin and Tung, 2019).

The coronavirus pandemic exacerbated the already resource constrained public health system, caused supply chain disruptions, and brought healthcare service delivery disruptions (Kelly et al., 2021). The lack of resources and support placed healthcare workers at risk of long-term adverse mental health outcomes and burnout (Kelly et al., 2021). The coronavirus pandemic caused staffing shortages due to early retirement of those eligible and increased rate of infections which required healthcare workers to take leave of absence to quarantine (Chervoni-Knapp, 2022).

It is evident that the coronavirus pandemic increased the challenges related to healthcare worker staffing, not only in the developing countries, but in the first world countries as well. The increase in demand for healthcare services and healthcare workers quarantine and death contributed significantly to the human capital challenges in the public healthcare system.

2.4 Managerial support to coronavirus pandemic staffing challenges

It is the good leaders who are known for having an eye of identifying problems, but greatest of leaders not only solve identified problems, devising means of lessening their organisational impact, but they prevent them from recurring and put measures to buffer their impact organisational function (Calvert, 1992 and Firestone, 2020). The healthcare workers historical problem of unfilled vacancies, the rise in unscheduled sick leave of absence, and increased patient numbers and work overload can be overwhelming for any healthcare institution, even in non-crisis periods (Aznavorian, 2020; CDC, 2022 and Kane et al., 2021), therefore, the healthcare workers on the ground would need all the necessary support the medical and nursing management can give.

The coronavirus pandemic brought about the public health crisis and dramatic impact on healthcare service provision (Aznavorian, 2020 and Cruden et al., 2021). The four-pronged crisis management approach in coronavirus pandemic management are to rapidly assess immediately available resources, optimise internal human capital resources, operational considerations for facility-based staff deployment and leveraging on supplemental human capital partners (Aznavorian, 2020). The national health department allocated additional human capital in terms of nurses and doctors who got employed to effectively deal with the staffing challenges (Mvumvu, 2020 and Radebe, 2021). The Democratic Alliance outlined an approach that can effectively deal with staffing challenges in employing the unemployed healthcare workers (Radebe, 2021). But with government being the only recruiter in the public healthcare sector, leveraging on supplemental staffing partners was not feasible. The employment of additional staff assisted in speeding up the process of filling up vacant posts, as the national treasury made funds available, but also that was not enough (Kelly et al., 2021; and Ngobeni and Dhanpat, 2021).

The managerial support was focused on the provision of personal protective equipment and hospital resources such ventilators, but there was not much care or focus into giving psychological support that the healthcare workers desperately needed (Dunn et al., 2020; Dawood et al., 2022; and Skogsberg et al., 2022).

2.5 The effect of coronavirus pandemic on healthcare workers

The coronavirus pandemic crisis gave healthcare workers a great burden, especially during the initial waves of the coronavirus infections (Gupta et al., 2021; Kelly et al., 2021; and Smallwood et al., 2022). The early diagnosis and management of coronavirus infections in healthcare workers to be done to prevent spread among the healthcare workers, and this should be extended to psychotherapy and other mental health issues management interventions (Holthof and Luedi, 2020; and Dawood et al., 2022).

The health effects suffered by the healthcare workers were substantial, and did not just involve psychological stresses and anxiety, but also extended to financial losses (Dawood et al., 2022 and Smallwood et al, 2023). There was a substantial increase in stress, burnout, and anxiety, which resulted in insomnia for the healthcare workers (De Kok et al., 2021 and Smallwood et

al., 2023). The effects on the healthcare workers were not limited to psychological effects and financial losses, but they were also personally affected in that, they were infected with the coronavirus and others even succumbed to the infection (Smallwood et al., 2023). De Kok et al., (2021) posited that there was fear of not only being infected by the coronavirus but also of passing it on to their loved ones, and that the frontline healthcare workers were the worst affected by depressive symptoms and anxiety.

There was notably high level of stress, anxiety, depression and post-traumatic stress disorder in both nurses and doctors in the public healthcare sector in KwaZulu-Natal (Dawood et al., 2022). The infection and passing of colleagues due to the coronavirus pandemic added to an already optimal levels of psychological impact of the pandemic to healthcare workers.

2.6 The effect on healthcare services delivery

Studies have shown that the coronavirus pandemic affected healthcare workers physically, emotionally, psychologically, and even financially (De Kok et al., 2021; Dawood et al., 2022; Smallwood et al., 2023). Patient care with good health outcomes needs to be done by the health services personnel who have good physical, mental and social well-being. It is therefore not surprising that there were gaps in the delivery of patient care services, not just in South Africa, but in the first world countries such as America (Bodjani et al., 2020; Cruden et al., 2021; and Dawood et al., 2022) The effect of coronavirus pandemic was that there was a lack of follow up of patients with both non-communicable and communicable diseases (Kruger et al., 2020). The mathematical models and planning algorithms assisted the South African national health department with advice on staff and equipment related infection surges management during the initial phases of the coronavirus pandemic (Holthof and Luedi, 2020). The coronavirus pandemic nevertheless affected the testing of TB and HIV on patients and the antenatal visits were affected which in turn led to increase in maternal and neonatal morbidity (Pillay et al., 2021). The processes enacted to decrease coronavirus exposure caused healthcare workers to give much attention to severely sick patients needing critical care, disadvantaging the less critically ill (Lulla-Edward et al., 2022).

The coronavirus pandemic put the global public health systems in crisis and not even the largest economies and first world countries were spared. The South African public health care system had pre-coronavirus pandemic problems relating to shortage of resources resulting in suboptimal patient healthcare provision (Malelelo-Ndou et al., 2019). The coronavirus pandemic tested the global health systems' surge capacity, the ability to rapidly attend to the surging healthcare demand (Rosenback et al., 2022). The coronavirus pandemic necessitated leaders in the public health service and healthcare managers to draw into their servant leadership, crisis leadership and crisis management skills.

The crisis management and crisis leadership are not uniform, they are complimentary. While leadership is an influence on the group of people engaged in the sole purpose or goal, management, deals with planning, organising, leading, and controlling organisational resources for the efficient and effective organisational function (Haslam et al., 2021 and Nizamiduo, 2023).

The South African public healthcare system has historical human capital challenges and inadequate resources, ranging from low number of medical doctors and nurse practitioners to inadequate equipment causing burnout to those employed at these levels of the public healthcare system (Couperi et al., 2005 and Malelelo-Ndou et al., 2019). The coronavirus pandemic has brought global public health crises, a negatively impacting delivery of health care service (WHO, 2020; Cruden et al., 2021; Kelly et al. 2021; Labobucci, 2022; and Rees et al., 2022). Combination of factors indicated that inadequate staffing and lack of other resources contributed to poor healthcare service delivery during the coronavirus pandemic.

The coronavirus pandemic brought about higher global levels of post-traumatic stress disorder, major depressive disorder, anxiety disorder, and acute stress to the healthcare workers, impacting their ability to provide good quality healthcare services (Kelly et al., 2021; Gupta et al., 2021; and Dawood et al., 2022).

2.7 Theoretical framework

The theoretical framework for this research is drawn from various leadership theories. Leadership is vital, for effective and efficient organisational function, strong leadership is required, because everything rises and falls on leadership (Maxwel, 2007). There are many leadership theories that the literature mentions, namely, trait theory, the great man theory,

charismatic theory, situational theory, transformational theory, contingency theory, transactional or management theory, crisis theory and servant leadership theory (Kok and van den Heuvel, 2019; Dimitrovska et al., 2023; Northouse, 2019; and Riggio and Newstead, 2023).

2.7.1 The great man theory

The great man theory is the display of extraordinary leadership skills and capabilities in times of crisis or catastrophic event theory by an ordinary man (Kok and van den Heuvel, 2019 and Northouse, 2019). The great man theorists hold the belief that the greatness in the leader comes with innate qualities, capabilities, and characteristics that the leaders is born with, different from those of the followers (Kok and van den Heuvel, 2019 and Northouse, 2019). The coronavirus pandemic required global leaders to navigate their districts, provinces, and countries through the worst global health crisis, without holding medical degrees or having scientific knowledge.

2.7.2 Transactional theory

Transactional theory speaks of exchanges that occur between leaders and their followers (Northouse, 2019). The emphasis in transactional leadership is in ensuring control over the followers through adherence to rules and regulations, and this is prevalent in the health care sector management systems (Kok and van den Heuvel, 2019 and Northouse, 2019). This was evident in rules the national government gave to the healthcare workers, including isolation periods and testing methods (NICD, 2020, CDC, 2021, and SA DOH, 2021).

2.7.3 Contingency theory

Contingency theory is pertinent to effective crisis management, and it stresses that leadership action is dependent on the leader's situational analysis (Riggio and Newstead, 2023). It is a broad leadership theory, applicable in crisis leadership to give much understanding on the needs on the followers so that leaders may revisit and adapt their approach (Riggio and Newstead, 2023). The coronavirus pandemic showed how dynamic medicine can be, and the different approaches that the government in terms of lockdown rules and the rules related to clinical management of the disease kept on changing (CDC, 2021).

2.7.4 Crisis leadership theory

The concept of leadership theories is not often spoken of during the normal times, and little has been said and researched about leadership during the times of crises (Riggio and Newstead, 2023). Crisis leadership is not merely leading in crisis situations, but anticipating and preparing for crisis situations, and navigating organisation through the crisis and preventing or mitigating the crisis impact (Firestone, 2020 and Riggio and Newstead, 2023). The coronavirus pandemic was declared a global health crisis by the World Health Organisation (WHO, 2020).

2.7.5 Complexity leadership theory

Complexity leadership theory posits that the world we live in now is complex and requires leaders who are well equipped in leading in this volatile and complex world (Kok and van den Heuvel, 2019 and Riggio and Newstead, 2023). The complexity leaders possess adaptive approaches to dealing with complex situations, and these are not driven by the organisational leadership, but the interaction of followers, leaders, and all other stakeholders (Riggio and Newstead, 2023). The complexity of the coronavirus pandemic is notable in that the disease greatly affected both the patients and the healthcare workers, as well as leaders in healthcare in general (Gupta, et al. 2021 and Dimitrovska et al., 2023)).

2.8 Conclusion

The coronavirus pandemic is undoubtedly one of the crises that has hit the shores of all countries. The crises have an inherent ability to destroy organisation, if not properly managed. Management in crisis situations calls for crisis leadership acumen, and the staffing challenges, both for the leaders and the followers need to be looked upon applying different models of leadership and management theories. The studies show that there have been staff shortages due to the coronavirus pandemic and it is therefore worth delving into all the areas impacted, not only the public but also the workers.

Chapter 3

Methodology

3.1 Introduction

The previous chapter dealt with the review of literature; this chapter's focus is on research methodology. This chapter will cover topics related to the study design, the sampling methods and the one used particularly for this study. The pilot study, sampling methods and technique is going to be outlined in this chapter. Bias and its elimination are spoken of in detail in this chapter and gives an overall research methodology for this research.

The research design can be based on the quantitative, qualitative, or mixed, and this is the use of numbers in quantitative research and closed-ended questions and responses (quantitative hypothesis), the use of words, the open-ended questions during interviews in qualitative research design and the combination of the two methods in the mixed research design respectively (Creswell and Plano, 2011; Fowler, 2014; and Creswell and Creswell, 2018). This study aimed to assess the staffing challenges that the eThekweni district healthcare personnel faced during the coronavirus pandemic period and the eThekweni health district managers' response to these challenges during the initial and latter waves of coronavirus pandemic in South Africa.

3.2 Sampling method

The sampling methods used in research are probability and nonprobability (Creswell and Creswell, 2018). The sampling method that the researcher used for this study was nonprobability sampling. There are generally five common types of nonprobability sampling: snowball, convenience, quota, self-selection, and purposive sampling (Cresswell and Cresswell, 2018).

3.3 Sampling technique

The nonprobability purposive sampling was done because healthcare workers in the eThekwini health district were well placed at exploring the meaning ascribed to the phenomenal problems they had gone through during the coronavirus pandemic period (Cresswell and Clark, 2011; Creswell and Creswell, 2018; and Praveena and Sasikumar, 2021).

3.4 Sample size

The size of the sample was twenty health care workers of the eThekwini district health system from Inkosi Albert Luthuli hospital, Osindisweni hospital, and Prince Mshiyeni Memorial hospital. It must be noted that these healthcare workers were both workers and managers in the district health system, and some were medical health practitioners treating patients infected and affected by the coronavirus pandemic. The demographics and their positions will not be divulged as indicated in the pilot study conducted.

3.5 Research design

The study design that the researcher chose was a qualitative descriptive phenomenal study design. Phenomenal study designs are used in exploring human experiences (Alhazmi and Kaufmann, 2022). Phenomenal studies are better placed at exploring meaning people ascribe to the given problem or phenomenon (Creswell and Creswell, 2018; Praveena and Sasikumar, 2021; and Alhazmi and Kaufmann, 2022). Therefore, a qualitative phenomenal study design was chosen because the phenomenon dealt with human experiences. The healthcare workers in the eThekwini health district were well placed at exploring the meaning ascribed to the phenomenal problems they had gone through during the coronavirus pandemic period (Creswell and Creswell, 2018; Praveena and Sasikumar, 2021 and Alhazmi and Kaufmann, 2022). Phenomenological studies are used for the exploration of people's experiences during different periods of the phenomenon they have experienced (Alhazmi and Kaufmann, 2022).

The understanding of human and social issues in phenomenological studies is better assessed through qualitative research (Creswell and Creswell, 2018; Praveena and Sasikumar, 2021; and Alhazmi and Kaufmann, 2022) since the participants had firsthand experience of the research phenomenon (Creswell et al. 2018 and Praveena and Sasikumar, 2021 and Alhazmi and

Kaufmann, 2022). The study sites were the district hospital, Osindisweni, the regional hospital, Prince Mshiyeni and the tertiary hospital, Inkosi Luthuli Central hospital. The researcher chose to use three different study sites because diverse organisational cultures may have different experiences of the same phenomenon (Alhazmi and Kaufmann, 2022). It then followed that the researcher chose to conduct this study using a qualitative descriptive phenomenal study design at three sites with different organisational cultures.

3.6 Study population

The study entailed getting permission from relevant authorities in the subject institutions, the chief executive officers, and medical managers. Ethical considerations ought to be adhered to in any research paper (Creswell et al., 2018), the review and approval for this study was obtained from the University of KwaZulu-Natal, HSSRC, approval reference number: HSSRC-00005211-2323. The gatekeeper letters had to be obtained, initially from the eThekweni health district and later from the hospital CEO's or medical managers prior to the researcher receiving support for conducting the study by the KZN provincial health department which approved the study through its provincial health research committee.

The healthcare services in the eThekweni health district are not only provided by the nursing practitioners and medical practitioners, but there is also an array of allied health care services provided (Golozana, 2020 and KZN HEALTH, 2021). The allied healthcare workers include radiographers, laboratory service technicians and administrators, pharmacists, psychologists, social workers, physiotherapists, occupational therapists, dieticians, and dental therapists (Golozana, 2020 and KZN HEALTH, 2021).

The study population were the managers, acting managers and assistant managers of the respective fields and components rendering healthcare services at the eThekweni health district.

3.7 Data collection instruments

The form of data collection was through interviews, using the one-on-one interview, individual zoom interviews and telephonic interviews (Fowler, 2014 and Boland, et al. 2022). There was no technological data collection as the interviews were done telephonically and one-on-one, with great care to the Covid-19 restrictions and the wearing of masks. The one-on-one

interviews were held at participants' offices. The target sample was thirty participants but only twenty-one participants could be interviewed from the respective components of the public healthcare services providers at the eThekweni health district from the nursing management, medical management, and allied health services management units from the three hospitals in the eThekweni health district, namely, Osindisweni district, Prince Mshiyeni Memorial and Inkosi Albert Luthuli Central hospitals. The response rate was therefore seventy percent.

Interview schedule.

7. How did the first, second, third and fourth waves of the coronavirus pandemic period affect healthcare workers staffing in your department?
8. What appropriate coronavirus pandemic interventions did you have?
9. Were there problems related to the coronavirus interventions availability or lack of access during the same period?
10. How did you manage healthcare worker coronavirus infections related staffing problems in view of confidentiality?
11. What impact did healthcare workers staffing challenges have on the healthcare service delivery?
12. What would be appropriate staffing challenges management in the future, drawing from the lessons learnt during the coronavirus pandemic?

The challenges that occurred during the study were poor internet access at some of the eThekweni district health institutions, causing delays to information and consent delivery participants via emails. It has been shown that South Africa has not developed and technologically to fully operate at the fourth industrial revolution stage, still struggling with fulfilling the third industrial revolution (Hlatshwayo, 2022). The purposefully selected participants had scheduled leave, making it difficult to reach them outside of their occupational environments. The Eskom load shedding also made it difficult to schedule zoom interviews because of load shedding related poor network coverage (Olajuyin, 2022). The study information, consent form and interview schedule were sent to the participants' email addresses. The one-on-one or telephonic interviews were then scheduled to take place at their convenient spaces and times. The data collected was analysed using thematic analysis by Colizzi's model (Praveena and Sasikumar, 2021).

The limitations to the study were the lack of expertise in zoom conferencing and internet usage on the part of participants. The other limitation was a potential for the lack of privacy, and this was mitigated by withholding information of departments who were part of the study, since their managers may be known to either their colleagues or the public. These limitations were taken care of since the participants had the one-on-one office interviews or telephonic interviews. The coronavirus pandemic assisted in the increase usage of internet services, including but not limited to zoom conferencing, as part of the coronavirus pandemic management in terms of social distancing, and even the South African Parliament started with virtual meeting during the first wave of the coronavirus pandemic in South Africa (SA Government, 2020).

3.8 Pilot study

A pilot study is a small-scale feasibility study conducted to test the feasibility of the main study and assists in the overall study design of the main project (In, 2017 and Lowe, 2019). A pilot study can be intrinsic, included in the main research project study design or extrinsic, independent of the main research project (In, 2017).

Phenomenology, ethnography, and grounded theory are the main qualitative research methodologies in which pilot studies are assigned (Janghorban, et al. 2014). The researcher conducted an internal or intrinsic pilot study for this phenomenological research project to ascertain the study feasibility as well as inclusion and exclusion criterion of the study participants. A pilot study found that the results of the study should be devoid of the participants' demographics details because that would violate their confidentiality as the leaders and managers of the target institutions in the study may be easily identifiable should demographics be put out in the results of the study. The demographics have therefore been omitted to shield the participants from unintentional violation of their confidentiality.

3.9 Data analysis

Data analysis was done using thematic analysis using the NVivo software. The process was to familiarize the researcher with data, systemic coding of data, theme development from the coded data, themes review, naming and refining themes and writing of the report (Creswell and Creswell, 2018).

3.10 Elimination of bias

The elimination of bias is of the important components of research. Bias may present in two forms, one being researcher bias and the other being the respondent bias (Yin, 2016 and Creswell and Creswell, 2018). The respondent bias was eliminated initially with the purposive sampling as opposed to convenience sampling. The respondents in convenience sampling may produce less informative data, whereas purposive sampling respondents provide most information rich and most relevant data (Yin, 2016; Creswell and Creswell, 2018; and Buikstra et al. 2020).

The use of open-ended questions by the researcher was helpful in eliminating respondent's bias, specifically agreement bias, where a respondent would simply agree or disagree in yes or no answer questions to appease the researcher (Yin, 2016 and Creswell and Creswell, 2018). The researcher bias was eliminated in that some of the respondents were requested to evaluate the findings, as part of the pilot study conducted in this research. The researcher is identified in this study with the sole purpose of exercising impartiality during the data collection, coding, interpretation, and discussion (Yin, 2016 and Creswell and Creswell, 2018).

3.11 Validity and reliability

Validity refers to the accuracy or the truthfulness of the results of study and reliability implies the consistency in the results of a study (Lune ad Berg, 2017; and Creswell and Creswell, 2018). Qualitative research uses different methods to test to ensure that there is validity in the study. Triangulation is one of the methods the researcher used to validate this study. Triangulation may indicate either the use of multiple data collection technologies, multiple researchers, multiple theories, multiple methodologies, or their combination (Lune and Berg, 2017). The

researcher used multiple data collection techniques, in that telephonic, zoom and face-to-face interviews were conducted, and multiple theories informed this study. The rich descriptions provided in the themes and the clarification of bias serve the other methods the researcher used to validate the study (Creswell and Creswell, 2018).

Reliability is the consistency in the results, and intersubjective reliability refers to the case where other researchers come to the same conclusions, given the same study design or data (Lune and Berb, 2017; and Creswell and Creswell, 2018). The study protocol for this project has been outlined and documented, the coding was done without deviation in definitions of codes and codes meanings, and it can be consistently applied by any other researcher, and that provides the reliability of the research method for this study (Creswell and Creswell, 2018).

3.12 Ethical consideration

The ethical considerations are the confidentiality of the study participants, and it will be ensured that their names are not divulged in the study, and so is their positions in the hospitals they represent. This study was and approved by the UKZN HSSREC, approval number HSSREC-00005211-2023. An ethical clearance certificate is attached (see appendix iv). The department of health approval of this study was received from KZN provincial health research committee, National Health Research Database reference: KZ_202304_006 (see appendix v). The study participants provided the researcher with an informed consent and there was no form of reimbursement was given to the participants for participating in the study. The pilot study conducted averted the breach of confidentiality. The researcher had no conflict of interest in the study.

3.13 Conclusion

The research design has been outlined to follow either qualitative, quantitative, or mixed study methods, and that notably, there may be bias to the study and how these were addressed. The

study design used in this phenomenology qualitative study was chosen, and the reason for choosing it is also outlined. The study was conducted among the healthcare workers who happen to be managers of departments, and the pilot study conducted shaped the methodology to ensure that their confidentiality is always maintained. The results obtained will be presented in the next chapter.

Chapter 4

Results Presentation and Analysis

4.1 Introduction

This study assessed the staffing challenges of eThekweni district healthcare workers during the coronavirus pandemic period, and how these were dealt with at the local hospital level. The study results are presented in this chapter, and the discussion forms part of data analysis and results interpretation in relation to the study objectives.

The use of thematic analysis by Colaizzi's method was employed in this study. The significant statements relating to the phenomenon being studied were extracted from the transcripts of participants' audio records, the themes were formulated, the phenomenon was described, and findings were validated by the study participants (Praveena and Sasikumar, 2021).

4.2 The results

The study was done to address the objectives outline in the first chapter of this paper, and the responses from the study participants indicated that they were challenges faced by the eThekweni healthcare workers during the coronavirus pandemic period as indicated by the responses transcribed below.

4.2.1 The level of coronavirus pandemic related staffing challenges.

“The level of staffing challenges was very bad, and Covid-19 pandemic caused severe staffing shortages, especially in the 1st and second wave when people had to go on sick leave for fourteen and ten days respectively after the diagnosis.”

“We were all scared of coronavirus, and we suffered from a lot of depression, stress, and anxiety.”

People suffered from severe burnout as they were stretched to the limit, as they had to carry the load of those who were off-sick.”

“There was poor patient care service delivery, as patients lost their autonomy, they were isolated, and no one was even allowed to visit them. The family members only received the phone calls to tell them of the passing of their loved ones. They did not die in peace.”

4.2.2 The appropriate available coronavirus pandemic interventions in eThekweni district health system.

“The Covid-19 screening of symptomatic patients and staff members.”

“The provision of personal protective equipment, such as gowns and masks helped.

“The early testing at the onset of symptoms, although turnaround times varied depending on the hospital, some were lucky to have laboratory tests done on site.”

“The isolation and quarantine for the infected assisted in shielding the uninfected staff members and patients, but it may have been abused later on as people wanted to be off-sick and be away from work, especially during the less virulent fourth wave.”

The Covid-19 vaccinations helped and gave the healthcare workers confidence.”

“The lockdown measures and moratorium on the sale of alcohol assisted in decreasing numbers of trauma cases.”

4.2.3 Management response to coronavirus pandemic related staffing challenges in eThekweni district health system.

“The managers at the hospital level made available personal protective equipment and ensured that healthcare services continue to be rendered.”

“The managers merged other departments to improve healthcare coverage and healthcare access because of the shortage of staff in other departments.”

“Covid-19 vaccines were made available by the national government and staff members were encouraged to take them, and provisions were made for them to get vaccinated, even when the vaccination sites were away from their workplace, transport to the vaccination sites was provided.”

“The district and provincial managers would have done more to support, and bring extra hands, especially doctors but they were not presently visible, and they did not send in more doctors, even though many post-community-service doctors were unemployed.”

“The emotional and psychological support was needed, and more so for the staff members who had lost colleagues due to the coronavirus pandemic.

“There should have been financial incentives, or danger allowance, or some kind of recognition, even a medal for the bravery healthcare workers showed under the circumstances, but none of that was considered by the management.”

4.2.4 The extent to which staff was affected by coronavirus pandemic in eThekweni district health system.

“The coronavirus pandemic severely affected the healthcare workers, they suffered from depressive symptoms and anxiety, stress, fear, and post-traumatic stress disorder because of coronavirus exposure and infection.”

“They were infected with the coronavirus, had their family members infected and some demised due to coronavirus infection complications.”

“They were scared that they were going to get the disease and transmit it to their loved one.”

“There are some members of staff who are still suffering from long-term effects of Covid-19 infection and have not received any form of compensation.”

4.3 Thematic analysis

The transcribed qualitative data obtained from audio recordings of participants during interviews gave rise to the following themes:

4.3.1 Severe staff shortages

The first two waves of the coronavirus pandemic period brought about severe shortage of staff. The shortage was because of isolation while awaiting the results, and the turnaround time for the tests were up to 5 days at Osindisweni district hospital, and it was about a day at Prince Mshiyeni Memorial and Inkosi Albert Luthuli hospitals as it was done onsite. The staff members who tested positive for the coronavirus had to isolation for 14 days initially during the first wave, and there was no staff replacement during that time, such that some departments had to close when most staff members were off-sick.

The other departments had to be combined to make up for the staff shortages. The staff members on duty had to carry the workload meant to be carried out by about three people. The time duration for isolation was reduced to 10 days, and that eased the shortages a bit, but more people were falling sick because of the virulent nature of the coronavirus in the second wave, which further exacerbated staffing shortages.

4.3.2 PPE shortages

There was PPE shortage during the initial waves of the coronavirus pandemic, specifically N95 masks, and this was attributed to the high global demand. The shortage of N95 masks necessitated the use of double or triple surgical masks until the N95 masks shortage was restored.

4.3.3 Healthcare worker education

The coronavirus pandemic was something that the medical fraternity never saw before, and there was a lot of research and education in the field. The information pertaining to the disease management was very dynamic, requiring frequent updates on the diagnosis and treatment modalities.

4.3.4 Loss of confidentiality

There was loss of confidentiality in that when one of the staff members had contracted the coronavirus it would be known or even assumed that they had the disease. The other staff members volunteered the information pertaining to their infection, to alert those that they would have spent time with, that they may also watch out for symptoms and test.

4.3.5 Psychological support

The healthcare workers were generally fearful of the coronavirus pandemic, they were having anxiety, stress, and depression as a result of being faced with the coronavirus pandemic. There was never any psychological support offered to the healthcare workers, despite losing colleagues and close family members.

4.3.6 National government support

The national government support in provision of the vaccines was commendable, but there was no support in alleviating human capital shortages. The human capital outsourced from other countries like Cuba, was not seen on the ground, having been deployed to other parts of the country.

4.3.7 Employee incentives

The healthcare workers were drained emotionally, physically, and psychologically; it would have assisted their plight to have some financial incentives. There were no financial incentives or danger allowance, not even a medal as a token of appreciation for working in such a challenging environment.

4.3.8 Poor service delivery

Healthcare service delivery was negatively impacted resulting in poor outcomes. The healthcare workers feared the pandemic, making them to decrease patient contact. There were less investigations on patients and some surgical procedures were cancelled when patients were found to be infected with the coronavirus. The patients lost autonomy and confidentiality as they could not choose how they were to be managed, and they were put in isolation in the designated covid wards.

4.4 Discussion

It has been clearly demonstrated that the coronavirus pandemic brought about the global health crisis. The coronavirus pandemic forcefully caused the leaders and healthcare managers to demonstrate crisis leadership and management skills. And since crisis leadership is an appropriate response process to organisational challenges, ongoing and future challenges mitigation and prevention (Kane, 2021), the leaders in the South African government stepped up to the task. The national health leadership-initiated coronavirus screening and the healthcare workers personal protective equipment provision (although there were shortages of supply during the first wave of the pandemic, but this seemed to have been a global shortage because of the high global demand), was an appropriate crisis management solution.

Crisis management is aimed at preserving organisational operations during a crisis (Kok and van den Heuvel, 2019; and Kane, 2021), so the healthcare managers at the hospital level changed working procedures, allocated certain staff less coronavirus infection prone staff members to high-risk areas and merged other departments to effectively deal with staff shortages, thus ensuring that hospital operations were preserved. The clear, concise, and transparent communication that the national health leadership demonstrated was reassuring, not only to the healthcare workers but to the public as well.

Leading during a crisis requires that leaders are not only present or visible and available, but also take steps in seeking additional resources to deal with the crisis at hand and the anticipated oncoming crisis (Kane, 2021). The healthcare leaders were present and available, but not much effort was put to seeking additional doctors except for the ones that were said to have come from Cuba who were not seen on the ground by the study participants. There was no emotional and psychological support for the healthcare workers during the coronavirus pandemic period, and they had to fend for themselves. The occupational health care services make provision for the employee assistance programme, which includes but not limited to counselling and psychotherapeutic measures and support, but this was neglected.

The general view is that healthcare workers experienced varying degrees of psychological effects, ranging from fear, stress, post-traumatic stress, anxiety to depression. The World Health Organization defines health, as a state of complete physical, mental, and social well-being, not just disease or infirmity absence (WHO, 2023). It would not have been feasible for the healthcare workers to be able to provide good quality healthcare services while they also needed psychological support and mental health care during the coronavirus pandemic. There were staff members who got infected with the coronavirus and succumbed to coronavirus related complications, but there were no counselling or debriefing sessions for the affected healthcare workers. The occupational health services may have been affected by the coronavirus pandemic, and the healthcare workers could not be put into employee assistance programmes and be referred for further psychological interventions, such as psychotherapy, and psychiatric evaluation and management.

4.5 Conclusion

The SAMRC Sisonke project and government Covid-19 vaccination programmes that were distributed to healthcare workers was one of the interventions believed to have averted the coronavirus pandemic's staffing challenges, since the staff had more confidence in facing coronavirus infected patients, and there were less virulent infections among the vaccinated staff members.

It was clear that the staffing challenges were not limited to the workplace, but extended to the staff members very being, in that there were personal ramifications ranging from burnout, anxiety, depression and post-traumatic stress disorder. It must be commended that the managers were able to offer some support in the workplace and were readily available to assist where necessary, but there had not been emotional and psychological support given to the healthcare workers, and this must be averted, should another pandemic strike the land.

Chapter 5

Conclusion and recommendations

5.1 Introduction

This study brings to light the challenges that the eThekweni district healthcare workers had to endure during the coronavirus pandemic period. The study was carried out in three different sites with totally diverse organisational cultures, but the general findings indicated that the experiences of the phenomenon was generally the same. The only notable difference was the in access to laboratory services, with Osindisweni district hospital having had to outsource coronavirus testing to other facilities in the first and second waves, leading to the higher turnaround times for the results.

The study shows that the coronavirus pandemic affected adequate and quality healthcare services provision to the public, and this lack affected the healthcare workers too, as they did not receive mental care services for their stress, post-traumatic stress disorder and major depressive disorder they suffered during the coronavirus pandemic period.

5.2 Study objectives summary

5.2.1 To assess the level of coronavirus pandemic related staffing challenges.

The studies show that coronavirus pandemic brought about severe global staffing shortages (Abuown, et al. 2020; CDC, 2022; Chervoni, 2022; and Rosenback, et al. 2022). The same can be said about the experience of the eThekweni district healthcare workers, they experienced severe human capital shortages due to the coronavirus pandemic period.

The eThekweni district health system had a substantial level of the coronavirus related staffing challenges, especially in the first and second waves of the coronavirus pandemic when people had to go on sick leave for fourteen and ten days respectively after the diagnosis of the disease. The eThekweni district healthcare workers feared the coronavirus infection, scared that they were going to take it to their homes to their vulnerable relatives and children, and this caused them to suffer from a lot of depression, stress, and anxiety. The eThekweni district healthcare workers suffered from severe burnout because of being stretched to the limit, and carrying the workload of those who were off-sick, isolating, or sadly demised.

The coronavirus pandemic did not only affect the eThekweni district healthcare workers, but also patients. Chronic medical care somehow took a backfoot as the priority and the resources were given to the coronavirus related medical emergencies, elective operations were put on hold and the medical staff to patient ratio was further widened. The implementation and upholding of the Batho Pele principles were somehow difficult to undertake, as patients lost their autonomy, they were isolated, and no one was even allowed to visit them. The family members only received the phone calls to tell them of the passing of their loved ones, whom they were given in specially sealed body bags.

5.2.2 To determine the appropriate available coronavirus pandemic interventions in eThekweni district health system.

The screening of symptomatic patients and staff members was one of the preventative interventions as it ensured that those who were symptomatic were quickly tested, isolated, diagnosed early, isolated and treated, before they had other people infected. The eThekweni district health care system provided of personal protective equipment, such as gowns and masks which helped the healthcare workers in prevention of the coronavirus infection. There were some shortages of PPE during the initial stages of the coronavirus pandemic period, owing to high global demand, and other logistical challenges.

The NICD measures of early testing at the onset of symptoms helped in the prompt diagnosis and appropriate management of those who were infected with the disease, although the results turnaround times varied depending on the hospital, as Prince Mshiyeni Memorial hospital and Inkosi Albert Luthuli hospital have around the clock functional laboratory services and tests done on site, hence their turn around times were shorter than counterpart. The isolation and quarantining of the infected individuals assisted in shielding the uninfected and disease-free staff members and patients, but it may have been abused later on as people wanted to be off-sick and be away from work, especially during the less virulent fourth wave.

The Sisonke project Covid-19 vaccinations done from March 2021 helped to curb the infections, disease virulence, hospitalisations, and Covid-19 related deaths for the vaccine recipients (Bekker et al., 2022). The Covid-19 vaccinations gave the eThekweni district health

care workers the much-needed confidence in execution of duties. The implementation of lockdown measures and moratorium on the sale of alcohol resulted in a substantial decrease of alcohol related medical emergencies and trauma cases. The coronavirus pandemic interventions were limited to the national health department directive, and strict adherence to the policies that had been formulated by the national health department in conjunction with The National Institute of Communicable Diseases, and the World Health Organisation.

5.2.3 To assess management response to coronavirus pandemic related staffing challenges in eThekweni district health system.

The problem of surge capacity was noted to have driven some of the managers to close other departments and merge others as a way of confronting severe staffing challenges that ensued because of the coronavirus pandemic affecting the healthcare workers personnel staffing.

The managers at the hospital level made available personal protective equipment and ensured that healthcare services continue to be rendered. The eThekweni district health managers merged other departments to improve healthcare coverage and healthcare access because of the shortage of staff in other departments.

Covid-19 vaccines were made available by the national government, the staff members were encouraged to take them, and provisions were made for them to get vaccinated, even when the vaccination sites were away from their workplace, transport to the vaccination sites was provided. The respondents generally felt that the district and provincial health managers could have done more to support clinical staff by bringing extra hands, especially doctors but they were not presently visible, and they did not send in more doctors, even though many post-community-service doctors were unemployed at the time.

The emotional and psychological support were needed, and more so for the staff members who had lost colleagues due to the coronavirus pandemic. The employee assistance programme forms part of occupational health care, but this was not utilised to assist the workers who required psychosocial support. There should have been financial incentives, or danger allowance, or some kind of recognition, even a medal for the bravery healthcare workers showed under the circumstances, but none of that was considered by the management.

5.2.4 To determine the extent to which staff was affected by coronavirus pandemic in eThekweni district health system.

The healthcare workers were severely affected by the coronavirus pandemic. The healthcare workers had to go to an environment where they would be faced with the most dreaded pandemic in the whole world. They not only suffered from fear, anxiety, and depression, but some lost their lives at the point of duty. There are healthcare workers who are having the long-term effects of coronavirus infection, and it is these who are still suffering while the world is begging to shift from the conundrum that the coronavirus pandemic brought into the global stage.

The eThekweni district healthcare workers were not compensated for the gruesome side effects they suffered due to the coronavirus infection, and these included, chronic lung disease and long Covid-19. There was no policy formulation or directive that the coronavirus pandemic was an occupational health disease, although many healthcare workers that succumb to it, had obtained it from the workplace (Kursumovic et al., 2020).

5.3 Study limitations

The study focused on just three hospitals in the eThekweni district when it has more than fifteen healthcare facilities, but data collection from these centres would have taken a much more tedious process gatekeeping letters ought to have been obtained from all of them for the health department to give the final authorisation of the study. There was difficulty in obtaining necessary documentation to initiate the study from the relevant departments and stakeholders in the health department, making the study to drag for the longer time than anticipated. The researcher used centres offering the primary, secondary, and tertiary levels of care to try and get the general perspective of healthcare workers faced with the phenomenon.

5.4 Conclusion

5.4.1 The level of coronavirus pandemic related staffing challenges.

The institutions experienced severe human capital shortages due to the coronavirus pandemic period.

The medical staff experienced severe stress related anxiety symptoms and depression.

5.4.2 The appropriate available coronavirus pandemic interventions in eThekwini district health system.

The personal protective equipment in terms of masks, gloves, and aprons.

The alcohol or ethanol spray containing at least 70% alcohol level.

The covid-19 vaccines, Johnson and Johnson vaccine from March 2021, and Pfizer vaccine later on were made available to healthcare workers.

5.4.3 Management response to coronavirus pandemic related staffing challenges in eThekwini district health system.

The overall response to the coronavirus pandemic related staffing challenges in the eThekwini district involved contingency measures that had been taken by the provincial health department in outsourcing human capital. The response indicated transactional leadership unfolding, as the leaders in the eThekwini district simply followed the mandate of the provincial health department leadership.

5.4.4 The extent to which staff was affected by coronavirus pandemic in eThekwini district health system.

The coronavirus pandemic's challenges cut across all nations, governments, and individuals. The entire globe was affected by the coronavirus pandemic. The already existing problems of poor resources and lack of full complement of human capital in the public health systems were exacerbated, and the leaders who are not skilled in crisis management were found wanting. The resilience and determination shown by the healthcare workers in fighting the coronavirus

pandemic were drawn from emotionally and psychologically traumatised and drained individuals, but they made it look like it was easy.

5.5 Recommendations

The coronavirus pandemic has taught global leaders on how to effectively deal with the crisis, and the oncoming pandemics will be won through appropriate and effective crisis leadership and crisis management. The national leadership and managers should be gearing up for challenges that may emanate from surge capacity, and this should include putting away emergency funds for sourcing more staff even if it means sourcing them from the private sector.

The level of empathy towards staff members affected by the pandemic can be improved, and appropriate counselling and psychological support should be done. The risk assessments to identify those at high risk should be prioritised. There should be more studies done to look at the psychological impact of neglect, and studies looking at available support for those suffering from long-term effects of the coronavirus pandemic.

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Appendix 1: Informed consent and information letter

UKZN HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE (HSSREC)

APPLICATION FOR ETHICS APPROVAL

For research with human participants

Information Sheet and Consent to Participate in Research

28 March 2023

Good day. My name is Siphesihle Mkhize from the Graduate School of Business and Leadership, University of KwaZulu-Natal. I am a master's candidate studying at the University of KwaZulu-Natal, Graduate School of Business and Leadership, Westville Campus. You are being invited to consider participating in a study that involves research assessing the staffing challenges faced by eThekweni district health workers during the coronavirus pandemic. The aim and purpose of this research is to assess eThekweni healthcare worker staffing challenges during the coronavirus pandemic that eThekweni health district healthcare workers had to grapple with during the first, second, third and fourth waves of the coronavirus pandemic infections in South Africa. The study is expected to enrol 30 participants in total, 10 from each hospital, Osindisweni district hospital, Prince Mshiyeni memorial hospital and Inkosi Albert Luthuli central hospital. It will involve one-on-one interviews, either physically or virtually via zoom call. The duration of your participation if you choose to enrol and remain in the study is expected to be twenty minutes.

The study does not involve risks and/or discomforts. We hope that the study will create the following benefits, addition to the body of knowledge, and assist policymakers enhance their

adaptive leadership skills to deal with subsequent challenges posed by pandemics or crises, for the betterment of healthcare workers working conditions in the eThekweni health district.

This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee, approval number HSSREC-00005211-2023.

In the event of any problems or concerns/questions you may contact the researcher at Graduate School of Business and Leadership, University of KwaZulu-Natal, Westville Campus, Durban. Email: 993211390@stu.ukzn.ac.za cell: [REDACTED] or the UKZN Humanities & Social Sciences Research Ethics Committee, contact details as follows:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001
Durban
4000

KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557- Fax: 27 31 2604609

Email: HSSREC@ukzn.ac.za

The information that you provide will be used for scholarly research only.

Your participation is entirely voluntary.

You have a choice to participate, not to participate or stop participating in the research.

You will not be penalized for taking such an action.

Your views in this study will be presented anonymously.

Neither your name nor identity will be disclosed in any form in the study.

The interview will take about 20 minutes.

The record as well as other items associated with the interview will be held in a password-protected file accessible only to myself and my supervisors.

After a period of 5 years, in line with the rules of the university, it will be disposed by shredding and burning. If you agree to participate, please sign the consent form attached to this statement (a separate sheet will be provided for signatures)

CONSENT

I..... have been informed about the study entitled “an assessment of the staffing challenges faced by eThekweni district healthcare workers during the Coronavirus pandemic period” by Siphesihle Mkhize.

I understand the purpose and procedures of the study. I have been given an opportunity to answer questions about the study and have had answers to my satisfaction. I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without being penalized.

If I have any further questions/concerns or queries related to the study, I understand that I may contact the researcher at the Graduate School of Business and Leadership, University of KwaZulu-Natal, Westville Campus, Durban. Email: 993211390@stu.ukzn.ac.za.

Cell: [REDACTED]

If I have any questions or concerns about my rights as a study participant, or if I am concerned about an aspect of the study or the researchers then I may contact:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

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Durban
4000

KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557 - Fax: 27 31 2604609

Email: HSSREC@ukzn.ac.za

Additional consent, where applicable

I hereby provide consent to:

Audio-record my interview YES / NO

Signature of Participant

Date

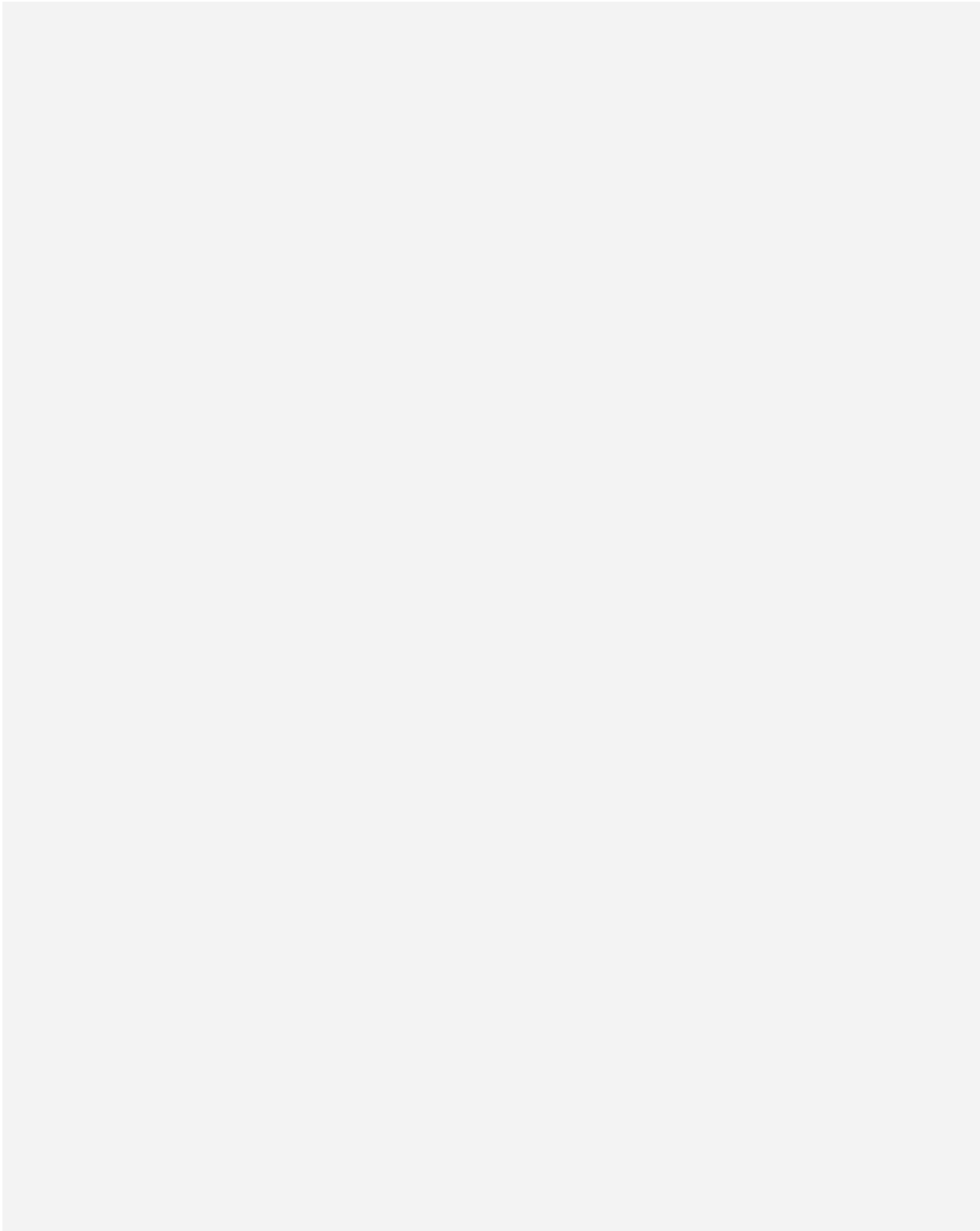
Signature of Witness

Date

Appendix 2: Interview schedule

1. How did the first, second, third and fourth waves of the coronavirus pandemic period affect healthcare workers staffing in your department?
2. What appropriate coronavirus pandemic interventions did you have?
3. Were there problems related to the coronavirus interventions availability or lack of access during the same period?
4. How did you manage healthcare worker coronavirus infections related staffing problems in view of confidentiality?
5. What impact did healthcare workers staffing challenges have on the healthcare service delivery?
6. What would be appropriate staffing challenges management in the future, drawing from the lessons learnt during the coronavirus pandemic?

Appendix 4: Ethical clearance certificate



Appendix 5: Gatekeeper letter



KWAZULU-NATAL PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

DIRECTORATE:

Regional Address: 3311 Langenhoven Street, Pietermaritzburg
Postal Address: Private Bag X9051
Tel: 033 395 2809/3189/3193 Fax: 033 394 0782
Email: hrk@kzn.health.gov.za

Health Research & Knowledge
Management

NHRD Ref: KZ_202304_006

Dear Dr S Mkhize
(UKZN)

Approval of research

1. The research proposal titled **"An assessment of the staffing challenges faced by eThekweni district healthcare workers during the Coronavirus pandemic period."** was reviewed by the Kwazulu-Natal Department of Health (KZN-DoH).

The proposal is hereby approved for research to be undertaken at Inkosi Albert Luthuli Central, Prince Mshyeni Memorial and Osindweni hospitals.

2. You are requested to take note of the following:
 - a. **Kindly liaise with the facility manager BEFORE your research begins.**
This is to ensure that conditions in the facility are conducive to the conduct of your research. These include, but are not limited to, an assurance that the numbers of patients attending the facility are sufficient to support your sample size requirements, and that the space and physical infrastructure of the facility can accommodate the research team and any additional equipment required for the research.
 - b. *All research conducted in KwaZulu-Natal must comply with government regulations relating to Covid-19. These include but are not limited to: regulations concerning social distancing, the wearing of personal protective equipment, and limitations on meetings and social gatherings.*
 - c. *Please ensure that you provide your letter of ethics re-certification to this unit, when the current approval expires.*
 - d. *Provide an interim progress report and final report (electronic and hard copies) when your research is complete to HEALTH RESEARCH AND KNOWLEDGE MANAGEMENT, 10-102, PRIVATE BAG X9051, PIETERMARITZBURG, 3200 and e-mail an electronic copy to hrk@kzn.health.gov.za*
 - e. *Please note that the Department of Health shall not be held liable for any injury that occurs as a result of this study.*

For any additional information please contact Dr. G Khumalo on 033-365-3189.

Yours Sincerely


Dr E Lutge

Chairperson, Provincial Health Research Committee

Date: 28/06/2022

Appendix 6: Turnitin report