RESEARCH REPORT

FACTORS RELATED TO THE PROVISION OF QUALITY HEALTH CARE SERVICES AT SELECTED PUBLIC CLINICS IN THE RURAL AREAS OF THE CAPRICORN DISTRICT, LIMPOPO PROVINCE.

by

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FULL-DISSERTATION

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DECLARATION

I, Matlala Nick Tlou, declare that this full-dissertation, titled: “Factors related to the provision of quality healthcare services at selected public clinics in the rural areas of Capricorn district, Limpopo province,’’ hereby submitted to the University of Limpopo for the degree of Masters of Nursing Sciences, has not been previously presented by me for the degree at this or any other University or Institution, that it is my own work in design and in execution, and that all material contained herein has been duly acknowledged.

NAME	SIGNATURE	DATE
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DEDICATION

This research is dedicated to my late father and brother Matlala Kwena, Albert and Matlala Phuti, Kenneth.

ABSTRACT

Background

Quality health care includes availability, accessibility, affordability, acceptability, competence of health care providers, reducing waiting time, ensuring privacy and confidentiality, ensuring safety and security, and reducing mortality and morbidity. Despite many initiatives made by the National Department of Health through the Minister of Health, provision of quality health care services remains a serious challenge in South Africa, especially in the public rural clinics. Communities from rural areas face many challenges at the public healthcare clinics such as poor infrastructure, attitudes from staff, old equipment, insufficient medicines, dirty healthcare sectors, and longer waiting times, which has led to provision of poor health care services.

Methodology

A quantitative research approach was used to conduct this study. The study was conducted in the Capricorn District of the Limpopo Province. Three municipalities; namely Blouberg, Lepelle-Nkumpi and Aganang, were selected from the five municipalities located in the Capricorn District because they are predominantly rural. A simple random sampling applying fish bowl method was used to select the public clinics in each municipality. A cross-sectional study design was used to conduct the study. Only professional nurses were selected to participate in this study. Data were collected using a structured self-administered questionnaire, over a period of three months. A total of 155 professional nurses were selected because they met the selection criteria. The response rate was 100% because all the 155 questionnaires distributed were completed. Data were analysed using the Statistical Package for Social Sciences program version 22.0 with the assistance of the University of Limpopo statistician.

Results

The findings of the study indicated that only 3 (2%) of the clinics operated for 24 hours, 72 (46%) operated for 8 hours and 80 (52%) operated for 12 hours. The majority of the professional nurses 123 (83%) said that the clinics are overwhelmed by large numbers of patients, whereas 26 (17%) of the professional nurses said that the clinics are not overwhelmed by large numbers of patients. Very few 29 (19%) professional nurses were satisfied with the salary they were paid, whereas the majority 124 (80%) were not satisfied with salary they were paid, and only 2 (1%) were unsure.

Recommendations

Recommendations were made to improve the quality of healthcare services in the public rural clinics: The Department of Health should review the salaries they pay professional nurses in rural clinics, particularly the Occupational Specific Dispensation, and they should be given a higher salary. Furthermore, the government should increase the salaries of nurses working in the public rural clinics to at least 10% higher than those in urban clinics within the next 5 years to attract more nurses to the public rural clinics. The Limpopo Provincial Department of Health should liaise with the treasury department to provide realistic budget to accommodate the population.

Conclusion

The findings of this study revealed the factors related to the provision of quality health care services at the selected public clinics in the rural areas of the Capricorn District, Limpopo Province. The study was limited to public clinics in the rural areas; therefore, the findings of this study cannot be generalised to the clinics that did not participate in the study.

Keywords: Quality, healthcare services, public rural clinics.

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DEFINITION OF CONCEPTS

Care- the provision of welfare and protection to children, the elderly in need, the sick and other vulnerable people (Barbara, 2009). In this study, it refers to the care the health care professionals provide to the community.

Clinic- a building or part of a hospital where people go for medical treatment or advice (Hornby, 2010). In this study, it refers to a facility where primary health care services are offered to community members.

Health- the World Health Organization (WHO) states that health is a state of complete physical, mental and social well-being, and not merely the absence of disease (Hockenberry & Wilson, 2007). Health, in this study, will be defined as above.

Provision-the act of supplying someone with something that they need or want (Hornby, 2010). In this study, it refers to the rendering of health care services to rural communities.

Quality health - is defined as the degree to which health services for individuals and populations increases the likelihood of desired health outcomes and are consistent with current professional knowledge (Institute of medicine, 2011). In this study, it refers to the availability, accessibility, acceptability and competence of health care professionals to ensure health care services are rendered to the patients for better health outcomes.

Services- systems that provide something that the public needs, organised by the government or a private company (Horny, 2010). In this study, it refers to the provision of health care to the communities in the rural areas.

LIST OF ABBREVIATIONS

CBO	Community Based Organisations
DA	Democratic Alliance
DENOSA	Democratic Nursing Organisation of South Africa
DHS	Department of Human Settlement
DoH	Department of Health
GDP	Gross Domestic Product
MEC	Member of Executive Council
NCS	National Core Standards
NDoH	National Department of Health
NHI	National Health Insurance
NRHM	National Rural Health Mission
NSP	National Strategic Plan
OHSC	Office of Health Standard Compliance
OSD	Occupational Specific Dispensation
PHC	Primary Health Care
SA	South Africa
SANC	South African Nursing Council
SPSS	Statistical Package for Social Sciences
TREC	Turfloop Research Ethics and Committee
WHO	World Health Organization

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CHAPTER 1

OVERVIEW OF THE STUDY

1.1 Introduction & background

According to the World Health Organisation (WHO) (2008), globalisation is putting the social cohesion of many countries and health systems under stress and health systems as key constituents are not performing as they should. People are becoming increasingly impatient with the inability of health services to deliver levels of national coverage that meet stated demands and changing needs, and with their failure to provide in ways that correspond to their needs and expectations. Few would disagree that health systems need to respond better and faster to the challenges of the changing world (WHO, 2008).

According to a study conducted by Mosadeghrad, Ferlie and Rosenberg (2008) in Iran, health care providers are burdened with heavy workloads and poor compensation packages. These heavy workloads and poor compensation packages have compromised the delivery of quality health care services, particularly in the public health care sector. Quality health care includes availability, accessibility, affordability, acceptability, competence of health care providers, reducing waiting time, ensuring privacy and confidentiality, ensuring safety and security, and reducing mortality and morbidity (Mosadeghrad et al., 2008). In another study conducted in Iran by Mohammad-Alizadeh, Wahlstrom, Vahidi, Nikniaz, Marions and Johnsons (2009), it was found that as the demand for quality health care services increases, most public health sectors find themselves overwhelmed by large volumes of patients. Furthermore, it is recommended that changes be made to a number of aspects of the health care system if health care organisations are to provide high quality services.

Health care resources are unequally distributed in China for example; wealthier cities have quality health care, whereas most rural areas lack quality health care services

(Claudio & Jin, 2010). China also lacks an effective primary health care system and as a result, patients often find it difficult to access health care.

Patients frequently complain that health care is expensive and that most facilities are not in a satisfactory condition and that the services delivered are poor (Claudio & Jin, 2010). Furthermore, the fact that the population is aging and the prevalence of modern chronic diseases is rising; primary health care services will continue to experience high volumes of patients needing health care.

A study by Chaudhury and Hammers (2006) on absenteeism in rural health clinics in Bangladesh recorded that absenteeism is the biggest problem in the rural areas. The results indicated that health care professionals living outside the service village have to travel on poor roads to get to work, which increases the likelihood of absenteeism by healthcare professionals in the clinics. Thus, suggesting a comprise of quality and quantity health care (Chaudhury & Hammers, 2006).

Zambia faces a critical shortage of health workers, especially in rural areas. In some rural areas, more than 50% of the health facilities have only one qualified professional to provide health care services (Koot & Martineau, 2005). The main reason given for not working in remote areas was difficult living conditions, such as the lack of electricity, water and schooling for children. The salaries for health workers were also generally very low and have fallen between 85% and 90% in 25 years (Koot & Martineau, 2005).

According to the United Nations Foundations (2013), many countries in sub-Saharan Africa are unable to provide well equipped facilities and adequate quality and coverage of health care services due to economic factors and scarce resources. The facilities are poorly maintained with inadequate infrastructure and healthcare professionals have to work under difficult conditions. The buildings are old and disease surveillance, drug supply systems, and pharmaceutical and drug management stock are weak (United Nations Foundations, 2013).

A study conducted in Botswana about patient satisfaction with the quality of health care services found that many patients were displeased with the time spent in the health care sectors (Kerssens, Groenewegen, Sixma, Boerma & Eijk, 2004).

Patients displeasure with the waiting time in the health sector is corroborated by a study, which document the relationship between waiting for service and overall satisfaction, with longer waiting times being associated with decreased satisfaction (Kerssens et al., 2004).

The National Department of Health (NDoH) (2011a), in South Africa flagged six areas that are fundamental to the provision of quality health care in all establishments. The six priority areas are: positive and caring attitudes, waiting time, cleanliness, patient safety, infection prevention, and control and availability of medicines and supplies.

As South Africa embarks on the implementation of Primary Health Care (PHC) re-engineering and National Health Insurance (NHI), the continuous monitoring of quality health care and health service delivery will be integral to informing health system strengthening strategies (Mathume, 2008). Primary Health Care re-engineering, which represents a shift in focus from delivering curative health services to a more patient-centred one that encourages health promotion, prevention and community involvement, will be greatly enhanced by continuous quality assessments and accreditation processes (National Department of Health, 2010a).

In the Limpopo Province, the department will continue to provide access to health services for the people living in the province through the provision of highly specialised Primary Health Care (PHC) services, provided through a network of community health centres, clinics and mobile clinics across the province (Dlamini, 2008). The increase in the number of PHC facilities providing 24 hour services is an attempt by the Department of Health to demonstrate its commitment to the primary health care approach, aimed at increasing access to PHC (Dlamini, 2008).The Department of Health (DoH) established the National Health Insurance (NHI) plan, with the aim of ensuring that everyone in the country has access to appropriate, efficient and quality health care services (DoH, 2011).

1.2. Problem statement

According to Brink, Van der Walt & Van Rensberg, (2014), problem statement is defined as an area of concern in which there is a gap or a situation in need of a solution, improvement or alteration, or in which there is a discrepancy between the way things are and the way they ought to be.

The Department of Health (DoH) has established a National Health Insurance (NHI) plan, with the aim of ensuring that everyone in the country has access to appropriate, efficient and quality health services (DoH, 2011). The DoH further stated that the NHI will promote equity and efficiency so as to ensure that all South Africans have access to affordable, quality health care services regardless of their socio-economic status. This insurance scheme will be phased in over a period of 14 years and is currently being piloted in 11 health districts, covering all the nine provinces in the country (Matsoso & Fryatt, 2013). Despite many initiatives made by the National Department of Health (NDoH) (2011a) through the Minister of Health, provision of quality health care services remains a serious challenge in South Africa, especially in the public rural clinics.

According to Office of Health Standards and Compliance (OHSC) (2018), the Limpopo health system is plagued by severe staff shortages and huge losses of experienced senior health care staff who have been seduced by better pay and satisfactory working conditions in private practices. Therefore, a shortage of staff means patients wait an excessive number of hours to be seen and public health buildings are in despair, with some lacking even safe running water (OHSC, 2018). In addition, in the public health care sectors in Limpopo, there are regular reports of theft of medicines, equipment that is aged, missing and broken, and ambulances that are reduced to mortuary vans because they take forever to arrive, if they arrive at all (OHSC, 2018). Therefore, patients are dissatisfied with the services they are receiving. Irrespective of working class, skin colour or language, provision of quality health care is of vital importance. It helps in restoring patients' satisfaction with the services rendered and tends to improve their health care status (NDoH, 2011a).

In addition, the reality is that the health care system in Limpopo is broken and it is failing hundreds of thousands of the country's most vulnerable people who rely on a free health care system that does not deliver (OHSC, 2018). This influenced the researcher to investigate the factors related to the provision of quality health care services at the selected public clinics in the rural areas of the Capricorn District in the Limpopo Province.

1.3. Theoretical framework

A theory consists of an integrated set of defined concepts, existential statements, and relational statements that can be used to describe, explain, predict or control at phenomenon (Burns & Grove, 2009). According to Brink, Van der Walt and Van Rensberg (2014), a theoretical framework is a study framework based on prepositional statements from a theory of theories.

Larrabee's theory (1996) of quality healthcare will be used to investigate the factors related to the provision of quality health care services at the selected public clinics in the rural areas of the Capricorn District, Limpopo Province.This theory is about the quality of nursing care. The theory is based on an organismic worldview, which provides a framework for understanding quality healthcare from the perspectives of both the healthcare providers and the patient's/families. Larrabee's theory (1996) defined quality as the presence of socially acceptable, desired attributes within the multifaceted holistic experience of being and doing. Larrabee's theory (1996) investigates a variety of aspects including: patient behaviour, cost, quality of care, and its influence on outcomes and patient perceptions of quality.

The theory will be discussed in detail in the next chapter.

1.4. Research questions

- What are the factors related to the provision of quality health care services at selected public clinics in the rural areas of the Capricorn District, Limpopo Province?

1.5. Aim of the study

The aim of the study will be to determine factors and make recommendations related to the provision of quality health care services at selected public clinics in the rural areas of the Capricorn District, Limpopo Province.

1.6. Objectives of the study

The objectives of the study are to:

- Identify the factors related to the provision of quality health care services at selected public clinics in the rural areas of the Capricorn District, Limpopo Province.

1.7. Summary of the research methodology

A quantitative research approach was used in this study because it emphasises objectivity and uses systematic procedures to measure human behaviour. A cross-sectional study design using a structured questionnaire was used to collect data from the respondents on the factors related to the provision of quality health care services at the selected public clinics in the rural areas of the Capricorn District in the Limpopo Province. Data were collected in 25 clinics in 3 municipalities from 155 professional nurses. Measures to ensure validity and reliability were applied. The researcher adhered to the ethical standards in order to protect the rights of the respondents. Data were analysed with the assistance of the University of Limpopo statistician using the Statistical Package for Social Sciences (SPSS) program version 22 (Newell & Burnad, 2006). Descriptive statistics were used to analyse data and data were presented using tables, pie charts and graphs. Details of the research methodology are discussed in chapter 3.

1.8. Significance of the study

The findings of the study would identify the factors related to provision of quality health care services at the selected public clinics in the rural areas of the Capricorn District, Limpopo Province. Furthermore, recommendations would be developed to

help improve the quality of healthcare services in the public rural clinics and may result in improvement of the health needs of the population. Successful recommendations may enable the Department of Health in further establishing a National Health Insurance (NHI) plan, with the aim of ensuring that everyone in the country has access to appropriate, efficient, and quality health care services (DoH, 2011).

1.9. Layout of the chapters

Chapter 1: Overview of the study

Chapter 2: Literature Review

Chapter 3: Research Methodology

Chapter 4: Results

Chapter 5: Discussion of the Findings

Chapter 6: Conclusion and Recommendations

1.10. Conclusion

This chapter discussed the overview of the study, which included the introduction and background, problem statement, theoretical framework, research question, aim of the study, objectives of the study, summary of the research methodology, and significance of the study. The next chapter, chapter 2, reviews the literature that is relevant to the study.

CHAPTER 2

LITERATURE REVIEW

2.1. Introduction

A literature review is an organised critique of the important scholarly literature that supports a study and is a key step in the research process (LoBiondo-Wood & Haber, 2006). This literature review is on the factors related to the provision of quality health care services in the rural clinics worldwide, in Africa, sub-Saharan Africa and South Africa. The literature review will enable the researcher to gain a wider perspective on what is already known with the research topic. The literature review will cover absenteeism in the healthcare sector; performance and improvement in the healthcare; barriers to provision of quality health care services abroad; waiting time of patients in the healthcare sector; financial influence in the healthcare sectors; management in the healthcare sector; national core standards for quality health care services in South Africa; efficiency in public health systems; lack of resources in healthcare; the influence of technology in the healthcare sectors; and professional skills and knowledge.

2.2. Absenteeism in the healthcare sector

According to a study conducted in Brazil, Rio Di Janeiro by O'Donnell (2007) on barriers to access of healthcare in developing countries, it was reported that absenteeism is one of the reasons for poor quality of health services in many, but not all, developing countries in the public rural areas. The study also reported that healthcare facilities in the public clinics open and close irregularly due to absenteeism by healthcare professionals, who were also hostile and even violent towards patients (O'Donnell, 2007).

A mixed method study conducted by Serneels, Lindelow and Lievens (2008), on absenteeism by healthcare professionals in the public healthcare sector reported absenteeism rates of healthcare professionals in the public healthcare clinics to be 36-45%, which means that patients are not attended to timeously, leading to a delay in receiving quality healthcare services. Thirty six to forty percent (36-45%) of absenteeism in the public rural clinics was due to a lack of accountability and punishment for transgression, thus provision of quality healthcare services remains a major problem (Serneels et al., 2008).

According to a study conducted by Chaudhury and Hammer (2006) on absenteeism of healthcare professionals in the healthcare facilities in Bangladesh, on average 35% of nurses and 42% doctors were absent across the 60 clinics in which the study was conducted. In addition, working in the rural areas, being female, and poor access to roads increased the likelihood of absenteeism amongst healthcare professionals. Absenteeism in the rural healthcare sectors was found to be a major concern (Chaudhury & Hammer, 2006). Absenteeism was also associated with the clinics' poor state of infrastructure and it compromised the quality of healthcare services (Chaudhury & Hammer, 2006).

A study conducted by Banerjee, Deaton and Duflo (2006), revealed that absenteeism by healthcare professionals in the rural public clinics poses a serious danger to the patient and it also limits patient access to services, reducing the quality of the healthcare services rendered to patients. The study revealed that the major reason for absenteeism by healthcare professionals was due to working in the rural clinics and travelling long distances on the gravel roads to work (Benerjee et al., 2006).

2.3. Improvement of healthcare services

A study conducted by Bradley in 2010 at Yale University funded by the World Bank, on the performance of health delivery organisations found that the presence of health workers in their assigned posts was on average 35%. Healthcare

professionals were absent at the time of an unannounced visit during official working hours (Bradley, 2010). Although these healthcare professionals were employed and being paid by the government, many were not doing the work of delivering healthcare services to the patients. Therefore, the situation was widespread and largely tolerated. The study further reported that low performance levels and large gaps in performance by healthcare professionals between the better and worse performing health facilities of the same type were affecting the quality of healthcare services (Bradley, 2010).

In the past years, the South African National Department of Health (NDoH) (2010b) has made a commitment to improve the quality of health care in the country. This commitment has been further cast into the spotlight through the publication of the 10 Point Plan for improvement of the health sector (2012-2014) in July 2010 (NDoH, 2010b). The NDoH's Strategic Plan for 2010/11-2012/13 (NDoH, 2010b) states that the department's vision is to ensure "an accessible, caring and high quality health system". The mission of the Department of Health is "to improve the health status through the prevention of illnesses and the promotion of a healthy lifestyles and to consistently improve the health care delivery system by focusing on access, equity, efficiency, quality and sustainability" (NDoH, 2010b).

According to the Department of Health (2011), there are low levels of patient and community coverage in life-saving services, even where capacity exists to provide these services. Healthcare professionals are absent from their assigned posts even though they are paid. In addition, shelves for drugs and supplies are empty (DoH, 2011). Therefore, this shows that having money and technology are not sufficient conditions for impact. Even with more money and better technologies, a major challenge remains: improving the delivery of health services. Without improvement in the performance of the organisations that deliver health services, potential gains in quality healthcare outcomes from increased funding and better technologies will not be achieved (DoH, 2011).

2.4. Barriers to provision of quality health care services abroad

According to a report by Bradley (2010), the quality of healthcare services in public rural clinics is affected by different environmental conditions. It was reported that the barriers affecting the quality of healthcare services associated with environmental conditions include the distribution of political power, prevailing market structures, cultural and community norms, demographic and epidemiological transitions, unavailability of resources, overcrowded healthcare sectors, and the unavailability of physical infrastructure (Bradley, 2010).

2.5. Waiting time of patient before they can get the service

In a report by Maluwa, Andre, Ndebele and Chilemba (2012)exploring moral distress of nurses at high volume facilities in Malawi, one nurse reported that the daily strain of attending to as many patients as possible and still not being able to care for everyone in the queue left her feeling sad and alone. Furthermore, the report revealed that the high volume of patients was delaying other patients' from accessing quality healthcare services (Maluwa et al., 2012). Therefore, healthcare professionals attending to too many patients on a daily basis end up being fatigued, which leads to poor healthcare services being rendered to the patients (Maluwa et al., 2012).

A study conducted by Richardson and Mountain (2009,) in Australia revealed that patients wait for a long period before they are attended to, due to poor structure of the health sector as there is not enough consulting rooms and privacy. The study further stated that growing populations of patients require a corresponding increase in services and structure, especially at the Primary Health Care level (Richardson & Mountain, 2009). In addition, a study conducted by Pizer and Prentice (2011), revealed that patients who are subjected to prolonged waiting times before receiving healthcare services have been shown to have a higher rate of non-compliance to treatment and do not return for their appointments. The study further revealed that long waiting times for healthcare services decreases patient satisfaction. Beyond decreased satisfaction due to longer waiting times for access to healthcare, it is

assumed that long waiting times for healthcare compromises the quality of the healthcare services provided to the patients (Pizer & Prentice, 2011).

2.6. Financial influence in the healthcare sectors

A study conducted by Mosadeghrad (2014) on factors influencing the quality of healthcare found that a patients' financial status may affect the quality of healthcare services they receive. It was reported that sometimes patients cannot afford the costs associated with their treatment and thus decide to cancel the treatment, which leads to deterioration of the heath of such patients. Therefore, if the patient does not follow the doctor's orders due to financial constraints, treatment will not be effective (Mosadeghrad, 2014).

Internationally, it has been acknowledged that how health systems are financed largely determines whether patients can obtain needed health care and whether they will suffer financial hardship as a result of obtaining healthcare services (Carrin, Evans & Xu, 2007). Furthermore, the design and implementation of an adequate healthcare financing system is essential in the pursuit of universal coverage.

According to a report by Davis, Collins and Audet (2007), providing households with financial protection and access to needed health care is a growing priority for low and middle-income countries and is at the core of efforts to move towards universal coverage. To this end, many African countries are seeking to expand health insurance coverage, introduce more effective user fee exemption mechanisms for those who cannot afford care, and improve tax collection and increase general levies for allocation to government health care (Davis et al., 2007).

In other similar studies conducted in Malawi and Kenya by Manafa, McAuliffe, Maseko, Bowie, Maclachlan and Normand (2009), and Mullei, Masamo, Blaauw, Goodman, Mudhune, Wafula, Lagarde and English (2010), it was reported that professional nurses working in the public clinics had stopped working and were not willing to work in these facilities again due to poor and insufficient salaries in the

healthcare system. In agreement, a study conducted by Sakyi (2008) in Ghana in the public rural areas revealed that healthcare professionals were being paid less while working under poor conditions, which lead to healthcare professionals lacking motivation to work.

Data published by the South African National Treasury (2007) estimated that the economy will grow by 7.6% in real terms annually over the period of 2004/05 to 2010/11 (National Treasury, 2007). District health services where most PHC services are rendered estimated to grow by 8.2% annually, infrastructure by 19.4%, and emergency medical services by 12.4% annually. Even though government invest funds into healthcare services at the primary level, the cost of health services continues to rise and it becomes difficult for quality healthcare services to be rendered (National Treasury, 2007).

In 2005, WHO recognised that health financing systems in many developing countries do not meet the prerequisites for universal coverage. Therefore, further development in the health financing system is needed in order to guarantee access to the necessary services while also providing financial risk protection (WHO, 2005).

2.7. Management in the healthcare sector

From a global perspective, a research team of more than 40 interviewers conducted interviews at almost 1,200 hospitals and clinics in Canada, France, Germany, Italy, Sweden, the United Kingdom and the United States (Nieneber, 2006). It was found that healthcare sectors with higher management-practice scores had better clinical outcomes as well as higher levels of patient satisfaction. For instance, in the United Kingdom, a one-point improvement in the management-practice score was associated with a 6% fall in the rate of deaths from chronic diseases (Nieneber, 2006).

2.8. National core standards for quality health care services in South Africa

In 2008, the Office of Standards Compliance (OSC) within the NDoH developed and piloted a set of National Core Standards (NCS), which form the basic requirements for quality and safe care in the country, while also reflecting existing government policies and guidelines (NDoH, 2011a). Given the long-term nature of quality improvement programmes to address deficiencies identified in certification and accreditation systems, the NDoH has used information gleaned from patient complaints and satisfaction surveys to develop a plan to improve the quality of healthcare services through the Minister of Health (NDoH, 2011a).

The National Department of Health (2011a), in South Africa through Minister of Health flagged six ministerial priorities that are fundamental to improving the provision of quality healthcare services. The six ministerial priorities are as follows:

- Keeping patients safe and providing reliable care by reducing adverse events resulting from care given, including operations and failures of the system and its workers through ignorance, inadequate inputs, systems failure or negligence.

- Ensuring that medicines, supplies and equipment are available and that patients get their prescribed medicine on the same day.

- Preventing infections from being transmitted in hospitals and clinics, specifically hospital-acquired infections.

- Values and attitudes of staff, so that patients are treated in a respectful manner with due respect to patient privacy.

- Reducing waiting times and queues for administration, assessment, diagnosis, pharmacy, surgery and referral and transfer time.

- Cleanliness of hospitals and clinics, including buildings, grounds, amenities, equipment and staff.

The South African National Department of Health (NDoH) has reaffirmed, through various recent policies and legislative mandates, its commitment to improving the quality of health care in the country (Mathume, 2008). The Departments vision, as stated in the National Strategic Plan (NSP), is to ensure an accessible, caring, and high quality system, aligned to the objectives of the 10-point plan and strategic outputs of the negotiated service delivery agreement, with emphasis on strengthening health system effectiveness through improved health care and patient satisfaction and the accreditation of health establishments (Mathume, 2008). As South Africa embarks on the implementation of Primary Health Care (PHC) re-engineering and National Health Insurance (NHI), the continuous monitoring of quality health care and health service delivery will be integral to informing health system strengthening strategies for the implementation of NHI and PHC re-engineering (Mathume, 2008).

2.9. Efficiency in public health system

According to a study conducted in India by Sengupta (2011), different levels of inefficiency are built into the current public health system. First, the lack of qualified and skilled human resources plagues healthcare services, especially in rural public areas (Sengupta, 2011). India is suffering from the choices made years ago to significantly reduce government investment in public sector medical colleges and to rather invest more in private medical and nursing institutions (Sengupta, 2011). Another study conducted by Ananthakrishnan (2005) revealed that healthcare professionals are less willing to work in the public sector after private training and even students who recently graduated from the best public medical colleges largely prefer to seek opportunities in the growing private medical sector, which offers better pay and working conditions. Furthermore, the study revealed that the unwillingness of healthcare professionals to work in the public healthcare sectors is caused by the

inefficiency in the public sector to improve the quality of healthcare services rendered (Ananthakrishnan, 2005).

2.10. Lack of resources in the healthcare

According to the report by National Rural Health Mission (2009), the third common review mission reported an estimated 40% of Indians still rely on the public health sector for in-patient care. It was reported that many communities either lack facilities altogether or have dysfunctional ones. Due to shortage of healthcare professionals, they are left with insufficient supplies of medicines and other healthcare services (National Rural Health Mission, 2009). In Kenya, the poor state of healthcare services in some public health facilities has resulted in high turnover and weak morale among staff, making it difficult to guarantee a 24-hour coverage, resulting in problems with patient care (Owino & Korir, 2006). High turnover of staff forces some patients to look for alternative health care providers and to spread negative reviews about the health care facilities (Tam, 2005).

The World Health Organization (2006a), reported that the lack of equipment, supplies and poor management structures in health systems leads to poor provision of healthcare services, limited competence, and poor responsiveness. The cause of poor provision of healthcare services is due to a number of factors such as disorganised governments not investing in health, lack of resources, and low salaries to healthcare professionals, which leads to increased absenteeism from work (WHO, 2006a).

According to a report by Owen (2007), insufficient resources, inappropriate allocation, and inadequate quality of the resources are major impediments to the delivery of effective healthcare to the poor (Owen, 2007). Furthermore, the issues around access to quality health care cannot be solved without addressing each of these deficiencies. It was further reported that there are two sets of factors that suppress the supply of quality healthcare services: those that limit the ability to consume and those that lower willingness to consume (Owen, 2007).

Many countries in sub-Saharan Africa are unable to provide well equipped facilities, adequate quality, and coverage of health care services due to economic factors and scares resources (United Nations Foundations, 2013). The unavailability of equipment has prompted many countries to advocate for decentralisation as a key factor to drive health sector reforms with a view to maximise the use of available resources to improve access and quality health care services provided (United Nations Foundations, 2013).

According to the results of a study in India conducted by Mosadeghrad (2014), working environments affect the quality of healthcare services. It was reported that using out-dated equipment, and not having enough consulting rooms' affects the quality of work. Furthermore, nurses in the study expressed a need for a quiet and supportive working area. For example, working in the basement is tiring when the work place is dark and confined; it causes healthcare professionals to feel depressed. One may start the day happy, but the poor physical environments causes the moods of the nurses to become negative, which will affect the quality of health services rendered to the patients (Mosadeghrad, 2014). High-quality outputs (services) require high-quality inputs. Working with low quality material decreases employees' productivity. It also takes more time to provide the necessary health care using old equipment (Mosadeghrad, 2014). The results you get from using old or unmaintained equipment may not always be reliable. For example, taking10 minutes to record patient vital signs on out-dated equipment versus less than 1 minute using modern technology equipment. The shortage of equipment increases healthcare professional's job stress, which consequently affects the quality of their work (Mosadeghrad, 2014).

2.11. The influence of technology in the healthcare sectors

According to a report by Cook (2014), technology has entered the healthcare system, increasing competition and driving new behaviours. It was reported that new advanced resources or equipment such as blood pressure machines, sonar

machines, and pulse reading computers were designed for people to be motivated by making their jobs easier and less time consuming (Cook, 2014).

Two similar studies (Hendricks, 2015; Jai & Roderico, 2012) reported that an increasingly digitally connected world and new technology has allowed the field of healthcare to make drastic changes that streamline the system. Furthermore, today's internet connectivity and mobile phones, and medical technology which includes stethoscopes, contact lenses and prosthetic limbs has improved the quality of healthcare services in the clinics (Jai & Roderico, 2012). Despite the new developments in technology, it still depends on the healthcare practitioners to ensure that the new technology devices are used properly to perform certain procedures and ensure that quality healthcare services are rendered (Jai & Roderico, 2012).

2.12. Professional skills and knowledge

Mosedeghrad (2014) reported that the quality of healthcare services mainly depends on healthcare professional's knowledge and technical skills. Furthermore, it was reported that the most important factors influencing the quality of work are knowledge, expertise, commitment, and examining the patient properly. Therefore, healthcare professionals should improve their competencies in terms of attitude, knowledge and skills in order to deliver quality healthcare services to the patients (Mosedeghrad, 2014).

A report by Department of Health (DoH) in the United Kingdom (2011) revealed that healthcare professionals require a range of skills and knowledge to render quality healthcare services. It was reported that healthcare professionals are experts in their fields, but may need further education and training so that they feel confident in other health areas such as explaining the nutrition required for a particular disease to the patient, the dangers of obesity, or the signs of unhealthy stress or anxiety (DoH UK, 2011). The report further reported that further education and workshops will help to keep healthcare professionals up to date with what is changing in healthcare, such as new medications and more advanced equipment (DoH UK, 2011). Healthcare

professionals may need support to strengthen their communication skills, so that they can engage with patients and communities to understand their attitudes and behaviours. The engagement of healthcare professionals with the communities will underpin health and influence factors like family and culture. This engagement is essential if the NHS is to show support to people to make healthy changes, and to ultimately reduce health inequalities (DoH UK, 2011).

A study conducted in Argentina by Farina, Rodriguez and Erpen (2012) on in-service training to improve quality healthcare revealed that the in-service training of healthcare professionals improves the identification and resolution of problems in daily patient care and improves the quality of healthcare services.

2.13. Theoretical framework

A theory consists of an integrated set of defined concepts, existential statements, and relational statements that can be used to describe, explain, predict or control at phenomenon (Burns & Grove, 2009). According to Brink, Van der Walt and Van Rensberg (2014), a theoretical framework is a study framework based on prepositional statements from a theory of theories.

Larrabee's theory (1996) will guide the current study. This theory of quality nursing care is based on an organismic worldview, which provides a framework for understanding quality nursing care from the perspectives of both the healthcare providers and the patients/families. Larrabee's theory (1996) defined quality as the presence of socially acceptable, desired attributes within the multifaceted holistic experience of being and doing. Larrabee's theory (1996) investigates a variety of aspects including: patient behaviour, cost, quality of care and its influence on outcomes, and patient perceptions of quality. Within this theory, quality has three distinct characteristics (Larrabee, 1996). Firstly, quality is a value-laden or desirable attribute; secondly, quality has degrees of desirability, which is influenced by social and cultural values and changes based on circumstances; and thirdly, quality meets the appropriateness criteria, which involves having the right thing, person or way

(Larrabee, 1996). This theory includes the following ethical and economic concepts: value, beneficence, prudence and justice.

The four interrelated concepts of quality nursing care theory:

- Value is being intrinsically desirable of fair worth and offers a fair return in goods or services. Value is an intervening or weighing concept between quality and the remaining concepts in the theory. Quality has been implied to be a value-ladened standard of comparison in care that is good, poor, better, appropriate, inappropriate, minimally acceptable, desirable, undesirable, inferior optimal or suboptimal. In this study, value is measured by patient satisfaction with the quality of healthcare services rendered.

- Beneficence is when the expected outcomes in healthcare goals for the wellbeing of patients are potentially beneficial. Beneficence is the most fundamental concept in Larrabee's theory of quality nursing care and is influenced by quality, value, prudence and justice. It is postulated that the extent to which benefits are valued should influence the expenditure of personal (prudence) or public funds (justice). Also, it is assumed that the quality of care delivered will influence beneficence. Benefits achieved will in turn influence patient perceptions of quality, depending on the relative value of the benefits to the patient. Therefore, in this study, implemented interventions in healthcare are designed to actualise goal achievement, and are therefore indicators of quality (Larrabee, 1996).

- Justice involves how others treat one another while in pursuit of resources. In this study, justice is being fair, which includes both distributive justice and corrective justice (Larabee, 1996). Distributive justice involves using common resources proportionately to each person's contribution, whereas corrective justice is correcting injustice by finding the mean between profit and loss. However, according to Larrabee (1992), the ethical issue of justice is bonded to economic and public policy issues because much subsidised health care is financed by public funds. When the cost of health care is bound entirely by individuals, decisions around what care or how much care are personal. However, when health care is financed by society,

these decisions become a matter of public policy. Overall, the quality and the costs of health care must be balanced to provide the recipient with a reasonable quality of care for a reasonable price (Larrabee, 1992).

- Prudence is defined as good judgment in setting realistic goals, good judgment and skill in using personal resources to achieve goals. In Larrabee's theory (1996) of quality nursing care, prudent individuals make judgments among competing goals expenditure of limited resources. In this study, behaviours viewed as noncompliant by a provider may be viewed as prudent by the patient, while following provider recommendations would be imprudent.

Quality is influenced by objective indicators of quality of the goods or services. In healthcare, this means that patient-perceived quality will be influenced to some extent by provider-defined quality indicators of care given. The theory supports viewing patients and families as equal partners with providers in defining, evaluating and achieving healthcare quality (Larrabee, 1996).

When healthcare professionals are planning, they select expected outcomes that are anticipated to promote the patients well-being and they select interventions anticipated to achieve the outcomes of quality healthcare. According to Larrabee's theory (1996), achieving the outcomes of quality healthcare can be viewed as beneficial. Furthermore, the theory states that goal setting in health care is often done by healthcare providers without collaborating with patients.

This tradition presumes that providers always know what is best for patients (Larrabee, 1996). In contrast, the model of quality, when applied to healthcare, is focused on customer responsiveness that suggests that patients always know what is best for themselves. Perhaps a collaboration between healthcare professionals and patients would produce more effective goal achievement of quality healthcare (Larrabee, 1996).

According to Larrabee (1996), goals provide direction for life, regardless of conscious awareness of one's goals. Patients have goals for quality healthcare experiences. The theoretical model of quality healthcare suggests that providers

should establish what patients goals are, because goal incongruence may adversely affect achievement. Some goals may be realistic, others may not be, and health care providers may help patients modify unrealistic goals. Likewise, being aware of patient's goals and their value to patients might help providers recommend health care actions that are prudent from a patient's perspective and just from society's perspective and thus, have a positive effect on the quality and cost effectiveness of healthcare. This theory provides a framework for investigating the influence of ranked importance of patient's goals upon patient's judgments to use personal resources and subsequently upon health outcomes.

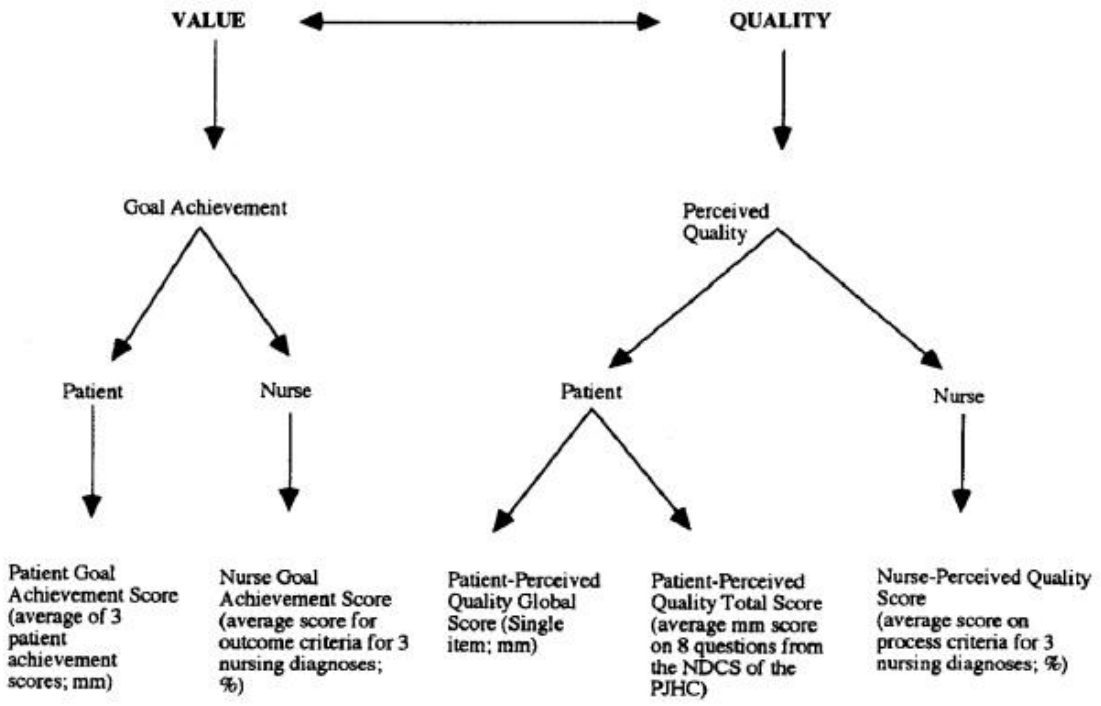

Figure 2.1 Larabee's Conceptual framework, 1996.

2.14. Conclusion

The literature review covered factors related to the provision of quality healthcare services in public rural clinics across some countries in the world. Poor infrastructure, inadequate resources, absenteeism by staff and lack of drug supplies in the public clinics are a major concern as it hinders the provision of quality healthcare services. However, the challenge is that quality healthcare services

cannot be rendered in the public rural clinics if the clinics are underfunded and under resourced. The next chapter describes the methodology of the study in detail.

CHAPTER 3

RESEARCH METHODOLOGY

3.1. Introduction

This chapter describes the research methods used in this study. These include research setting, research design, population and sampling, data collection, data analysis, and ethical considerations.

3.2. Research approach

According to Burns & Grove (2009), research methodology is defined as the process or plan for conducting the specifics steps of a study. Quantitative research is a formal, objective, systematic process in which numerical data are used to obtain information about the world (Burns & Grove, 2009). A quantitative research approach was used to conduct this study because it emphasises objectivity and uses systematic procedures to measure human behaviour by using formal structured instruments when collecting data from respondents (Burns & Grove, 2009). The results of this study were expressed in numbers to quantify the study findings.

3.3. Study site

The study was conducted in the Capricorn District of the Limpopo Province. The Capricorn District is located in the Limpopo Province, which is one of the nine provinces of South Africa. The Capricorn District has 5 municipalities namely: Aganang, Blouberg, Lepelle-Nkumpi, Molemole and Polokwane. The Capricorn District is as a stopover between Gauteng and the northern areas of Limpopo and between the north-western areas and the Kruger National Park. It forms the gate way to Botswana, Mozambique and Zimbabwe.

The capital of the Limpopo Province, Polokwane City, lies in the heart of the Capricorn District. The district has an internal airport and is linked to Gauteng by one of the best

stretches of the National route (N1) in South Africa. It has the third-largest district economy in the Limpopo Province and is predominantly rural in nature. The study was conducted in the clinics of three municipalities of the Capricorn District because they are predominantly rural, namely: Blouberg, Lepelle-Nkumpi and Aganang. The names of the clinics where data was collected are:

BLOUBERG	**LEPELLE-NKUMPI**	**AGANANG**
Blouberg CHC	Zebediela Estate	Matlala
Indermark	Moletlane	Maraba
Helen Franz Gateway	Byldrift	Schoongezight
Zeist	Smugglers Union	Uitkyk
Buffelshoek	Mogoto	Mashashane
Kromhoek	Rakgwatha	
Lesfontein	Seakamela	
Avon	Monz	

De Vrede	Diana	
Grootdraai	Kgwale	

Table 3.1. Names of clinics per municipality

The following healthcare services are rendered at all these public clinics: reproductive health, maternal and child health care, treatment of communicable and chronic diseases, minor ailments, and psychiatric conditions.

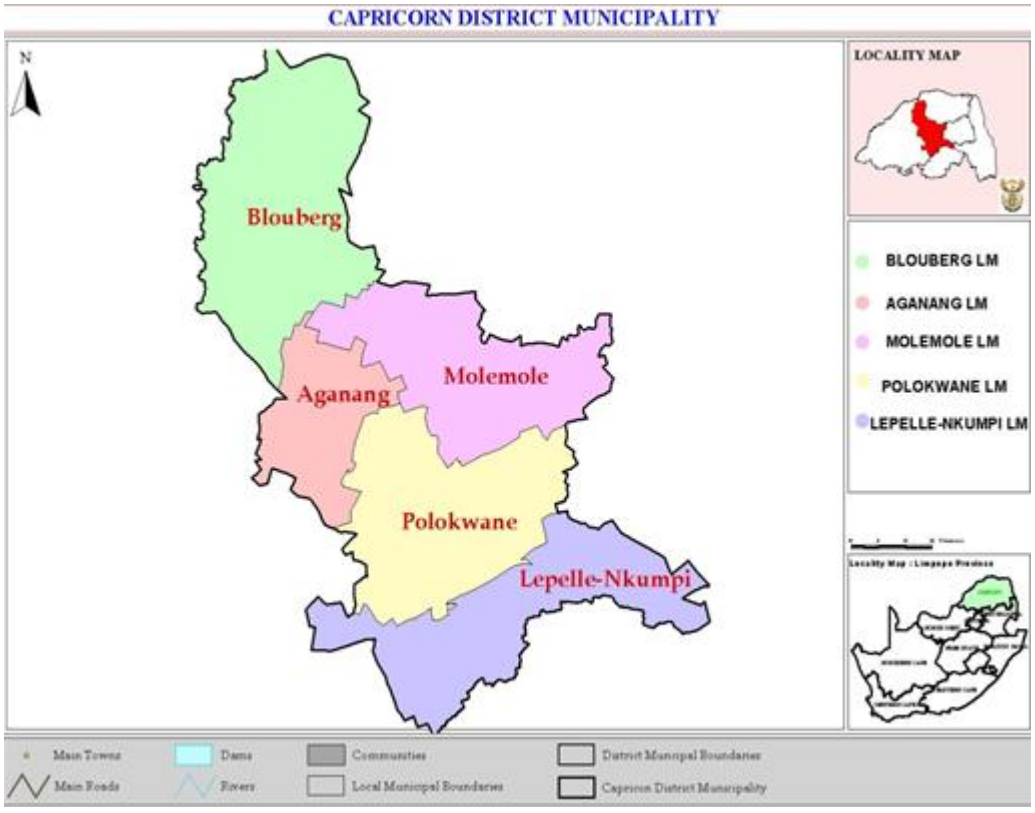

Figure 3.1. Capricorn District municipality map, adapted from the Limpopo Province Freight Data Bank

3.4. Study design

A cross-sectional study design was used to conduct the study. Cross-sectional studies are limited to a given time period and they concentrate only on the here and now (Peter, 2013). Cross-sectional studies examine data at one point in time, which is data collected on only one occasion with the same subjects rather than with the same subjects at several points (LoBiondo-Wood & Haber, 2006).

Cross-sectional studies are used to find out the prevalence of an outcome or exposure in a given group of individuals. They are commonly used in healthcare research and are quick, cheap and easy to conduct (Brink et al., 2014). The researcher considered this design as suitable for the study in order to answer questions by identifying the factors related to the provision of quality health care services and the strategies to improve the provision of quality healthcare services at the selected public clinics in the rural areas of the Capricorn District, Limpopo Province.

3.5. Population and sampling

3.5.1. Population

Population is the entire aggregation of cases in which a researcher is interested in other words that meets the criteria that the researcher is interested in studying (Pilot & Beck, 2014).

The Capricorn District had 5 municipalities namely: Aganang, Blouberg, Lepelle-Nkumpi, Molemole and Polokwane. The total number of public clinics in the five municipalities was 86. Each public clinic had an average of 7 professional nurses meaning that the total number of all the professional nurses was 602.

3.5.2. Sampling and sample size

Sampling refers to the researcher's process of selecting the sample from a population in order to obtain information regarding a phenomenon in a way that represents the population of interest (Brink et al., 2014). A sample is a group of participants, events, records, occasions, or circumstances that consist of a portion of the entire population (Cooper & Schindler, 2011).

- **Sampling of municipalities**

Of the 5 municipalities, three were selected namely: Blouberg, Lepelle-Nkumpi and Aganang because they are predominantly rural whereas Molemole and Polokwane municipalities were left out because are urban**.**

- **Sampling of clinics**

A simple random sampling method applying the fish bowl method was used to select the public clinics in each municipality. Under this method, the clinics were selected on the basis of a random draw. Firstly, each clinic was assigned a unique number, then these numbers were written on separate cards which were physically similar in shape, size and colour. The cards were then placed in a basket and thoroughly mixed and were taken out randomly without looking at them. The number of cards drawn was equal to the sample size required. Blouberg municipality had 19 clinics, Lepelle- Nkumpi municipality had 21 clinics and Aganang municipality had 10 clinics. Half of the public clinics were selected in each of the three municipalities. Ten public clinics were selected in Blouberg, 10 in Lepelle-Nkumpi and 5 in Aganang municipality. A total of 25 clinics were selected. The names of the public clinics selected were as follows: Indermark, De Vrede, Seakamela, Kromhoek, Buffelshoek, Blouberg CHC, Zeist, Grootdraai, Kgwale, Helen Franz Gateway, Monz, Lesfontein, Avon, Matlala, Schoongezight, Maraba, Mashashane, Uitkyk, Diana, Byldrift, Smugglers Union, Zebediela Estate, Mogoto, Moletlane, and Rakgwatha.

- **Sampling of professional nurses**

Seeing that each public clinic had an average of 7 professional nurses, the total sample was 175 professional nurses. The researcher decided to select all 175 professional nurses in order to ensure a sufficient sample size. Twenty professional nurses were excluded because they didn't meet the inclusion criteria.

- **Inclusion criteria**

All professional nurses with 2 years and more experience were included in the study.

- **Exclusion criteria**

Exclusion criteria are characteristics that can cause a person or element to be excluded from the target population (Burns & Grove, 2009).

All professional nurses with less than 2 years of work experience were excluded because they did not have enough work experience to participate in the study.

All professional nurses who were doing clinical exposure at the selected clinics for their Primary Health Care studies were excluded from the study because they did not form part of the clinic staff.

3.6. Data collection

Data collection is the gathering of information that describes some information from which conclusions can be drawn (Brink et al., 2014).

3.6.1. Structure of the questionnaire

A self-administered questionnaire was developed by the researcher and was written in English. It took a period of three months to collect data. The self-administered questionnaire was structured in the following manner:

The questionnaire consisted of 32 questions that were divided into two sections namely:

Section A: Demographic data (4 questions).

Section B: Factors related to the provision of quality healthcare services (28 questions).

3.6.2. Data collection process

The researcher contacted the selected clinics to make appointments, and dates were given on days where all shifts were meeting. However, second arrangements had to be made to cover those on sick leave and those who were attending workshops.The questionnaires were delivered to the selected clinics by the researcher. The professional nurses were assembled in a vacant room and were provided with chairs and pens to fill in the questionnaires. The researcher explained the purpose of the study. Questionnaires were distributed according to shifts and were completed in the clinics during lunchtime, in the presence of the researcher to clarify any questions not understood. Those who agreed to participate in the study signed a consent form. It took 15-20 minutes for each respondent to complete the questionnaire. Data were collected for a period of three months. Approximately two to three clinics were attended to per day, depending on the distance between the clinics and the appointment days. The response rate was 100% because all the 155 questionnaires distributed were completed.

3.7. Data analysis

Data were analysed using the Statistical Package for Social Sciences (SPSS) program version 22.0 with the assistance of the University of Limpopo statistician. SPSS is a computer program used widely for handling numerical data (Newell & Burnard, 2006). Descriptive statistics were used to analyse data and was presented

using frequency distribution tables, pie charts and bar graphs (LoBiondo-Wood & Haber, 2006). Frequency distribution tables were also used and these assisted the researcher in the arrangement of the lowest to the highest scores linked with the number of times the score occurred (Brink et al., 2014). Each score was listed separately, meaning the results are subdivided into scores and percentages. The scores are included together with the information data and the factors related to the provision of health care services in the rural clinics (Brink et al., 2014).

3.8. Validity and reliability

3.8.1. Validity

Validity refers to whether or not an instrument measures what it claims to (Newell & Burnard, 2006).

- Content validity is an assessment of how well the instrument represents all the components of the variables to be measured (Brink et al., 2014). The researcher conducted a review of the literature to ensure that the questionnaire had enough content regarding the subject matter. The questionnaire was also submitted to the supervisors who gave valuable advice.

- Face validity was enhanced through consultations with the supervisors and through consultations with the University statistician. The supervisors were asked to read the questionnaire and evaluate the content in terms of whether it appeared to reflect the concepts the researcher intended to measure (LoBiondo-Wood & Haber, 2006).

- Criterion-related validity refers to a pragmatic approach to establishing a relationship between the scores on the instrument in question and other external criteria. The researcher tested that the instrument measured what it expected to measure by comparing it to the tested instrument that was used during pre-testing and known to be valid.

3.8.2. Reliability

Reliability is the consistency with which a tool measures what it is intended to (Moule & Goodman, 2014). Reliability was ensured by conducting pre-testing of the questionnaire on five healthcare professionals from Zebediela Gate Way clinic, who did not participate in the actual study (Brink et al., 2014).

Pre-testing of the questionnaire

The questionnaire was pre-tested at Zebediela Gate Way clinic which did not form part of the main study. The questionnaire was given to 5 professional nurses who met the selection criteria.

The questionnaires were completed at home, where the environmental context was favourable. The purpose of the pre-testing phase was:

- To identify any errors in the questionnaire and correct them before data collection.
- To gain in-depth understanding of the factors related to the provision of quality health care services at the selected public clinics in the rural areas of the Capricorn district, Limpopo province.
- To develop an appropriate instrument to measure the variables.

To ascertain that the research instruments were reliable after the pre-test was done, the researcher subjected the instrument to analysis by the statistician to ensure the questions posed measured what it was intended to measure. The results indicated that all the questions were answered and therefore, there was no need to change the questionnaire.

3.9. ETHICAL CONSIDERATIONS

Ethics are standards or patterns of behaviour that direct the moral choices about the conduct and relations with others (Cooper & Schindler, 2011). The researcher

adhered to the following ethical standards in order to protect the rights of the respondents.

- **Permission to conduct study**

The proposal was submitted to the Turfloop Research Ethics Committee for ethical clearance and permission was granted (TREC/161/2016: PG) see appendix D. Permission to collect data was requested and granted by the Department of Health Research Committee of the Limpopo Province (Ref: 4/2/2) see appendix E, and supervisors and professional nurses' in-charge of the selected clinics.

- **Informed consent**

Informed consent comprises of three elements – information, voluntariness and comprehension. Informed consent was obtained from the respondents, who were given sufficient information about the study and the procedures involved to ensure that they did not feel deceived or exploited (May & Holmes, 2012). Information about the study, and what is required and expected from the professional nurses was communicated. A consent form was signed by the professional nurses who agreed to participate in the study. They were also informed that they had the right to withdraw from the study and would not be penalised (May & Holmes, 2012).

- **Anonymity**

Anonymity means namelessness. Anonymity is about the protection of the respondents so that the information they give cannot be linked to them (LoBiondo-Wood & Haber, 2006). The process of ensuring anonymity refers to the researcher's act of keeping the respondents' identities a secret with regard to their participation in the research study (LoBiondo-Wood & Haber, 2006). The researcher distributed questionnaires and requested that they be returned without any identifying details. The researcher assured the professional nurses that their identity will remain anonymous in the presentations of the research findings and when submitting articles for publication (LoBiondo-Wood & Haber, 2006).

- **Confidentiality**

Confidentiality relates to the way information gained from respondents is treated and assurances given that it will not be revealed to anyone except the researcher (Moule & Goodman, 2014). Confidentiality was guaranteed by insuring that data obtained was used in such a way that no one would know the sources (Moule & Goodman, 2014). The respondents were promised that the data from the completed questionnaires would be analysed and published but the respondents names would not be identified in the report. Data collected would not be divulged to individuals not involved in the research without the permission of the respondents and the completed in questionnaires would be kept in a safe and locked cupboard (Moule & Goodman, 2014).

- **Principle of respect for persons**

Individuals are autonomous they have the right to self- determination. This implies that an individual has the right to decide whether or not to participate in a study, without the risk of penalty or prejudicial treatment (Brink et al., 2014). During data collection, the respondents had the right to decide whether or not to participate in the study, without the risk of penalty or prejudicial treatment. Respondents had the right to withdraw from the study at any given time, to refuse to give information or to ask for clarification about the purpose and significance of the study (Brink et al., 2014).

- **Principle of justice**

The respondents had the right to fair selection and treatment. The researcher selected with fairness the study population in general and the respondents in particular (Moule & Goodman, 2014). The researcher selected the professional nurses because they are the backbone of the public healthcare services due to their role in the delivery of healthcare services and not because they were readily available or can be easily manipulated. The principle of justice was maintained by ensuring that none of the respondents were abused or exploited on the grounds of race, religion, sex, age, class or sexual orientation (Moule & Goodman, 2014).

3.10. Bias

Bias is an influence that results in an error in an inference or estimate, which can affect the quality of research in both quantitative and qualitative studies (Pilot & Beck, 2014). The researcher considered a questionnaire an appropriate tool for data collection in the study. The respondents were supposed to only tick yes, no or not sure freely without being probed by the researcher to answer the questions the way the researcher wanted. The researcher delivered the questionnaires to the respondents at the clinics (Pilot & Beck, 2014). The researcher detached from the study and tried not to influence the respondents when they were answering the questions in the questionnaire but was around the clinics to help with clarification where needed.

3.11. Conclusion

This chapter described the quantitative research approach, cross-sectional study design that was used in the study. A structured self-administered questionnaire was used to collect data which took a period of three months. Data were analysed with the assistance of a statistician using the SPSS program version 22. Descriptive and inferential statistics were used when analysing data. Validity and reliability were ensured in the study. A total of 155 questionnaires were completed by professional nurses working in the selected 25 public clinics of the three predominantly rural municipalities: Blouberg, Lepelle-Nkumpi and Aganang, with a response rate of 100%. The researcher adhered to the ethical standards in order to protect the respondents.

CHAPTER 4

RESULTS

4.1. Introduction

This chapter presents the results of the study and is divided into two sections. The first section (A) deals with the findings regarding demographic data. Section (B) deals with the findings regarding the factors related to the provision of quality healthcare services in the selected public rural clinics of the Capricorn District, in the Limpopo Province. SPSS version 22 was used to analyse data. Data were presented using pie charts, bar graphs and tables.

4.2. Response rate

The response rate was 100% because all the 155 questionnaires distributed were completed.

SECTION A

4.3. Demographic data

This section presents the demographic data, which covered gender, educational level, and work experience, operating hours of the clinics, nature of appointment for the professional nurses, and number of patient visiting the clinics daily.

4.3.1 Gender of the respondents

There were more female professional nurses 104 (67%) than male professional nurses 51 (33%) in the public rural clinics of the Capricorn District.

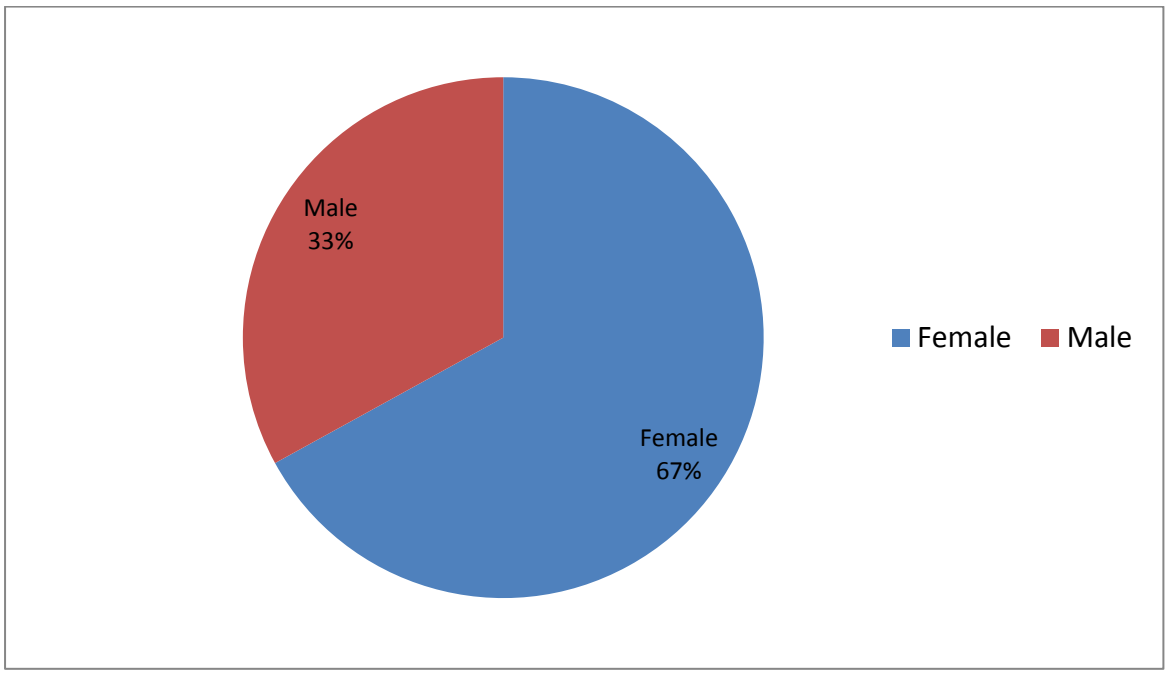

Figure 4.1: Gender of the respondents, (n) =155

4.3.2. Educational level of the respondents

Most professional nurses 93 (60%) had a diploma in nursing, 51 (33%) a bachelor degree, 7 (4%) a Master's degree, and 4 (3%) had other qualifications.

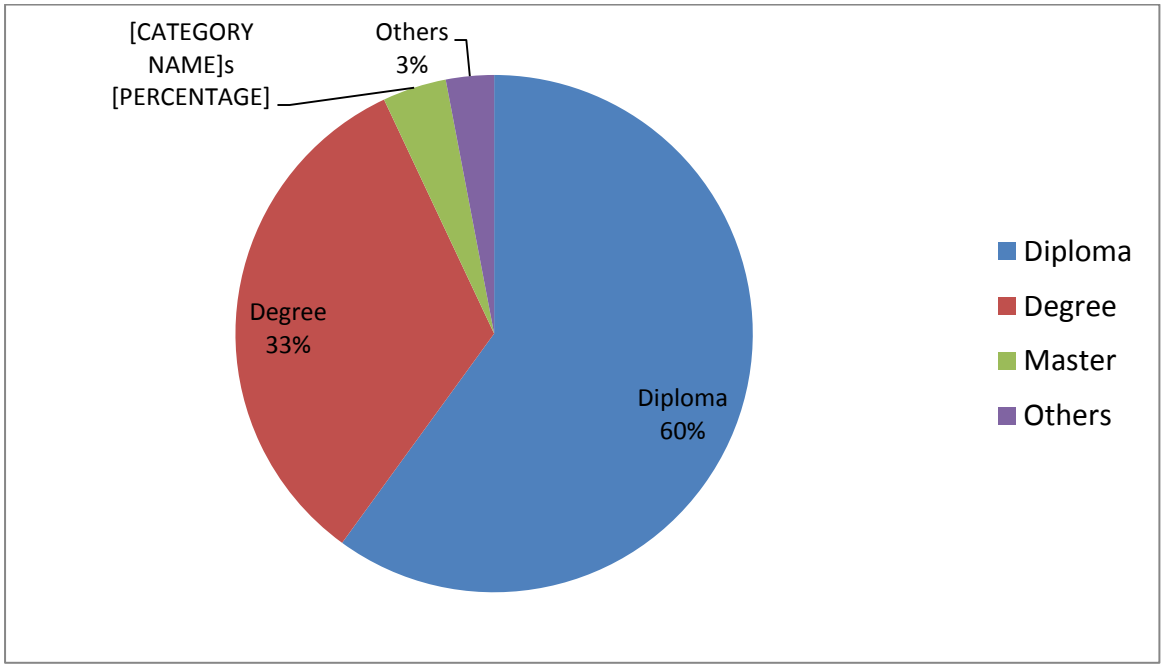

Figure 4.2: Educational level of the respondents, (n) =155

4.3.3. Work experience of the respondents

The years of work experience of the professional nurses in the public rural clinics indicated that 39 (25%) had 2 to 5 years, 49 (31%) 6 to 10 years, 35 (23%) 11 to 15 years and 32 (21%) more than 15 years.

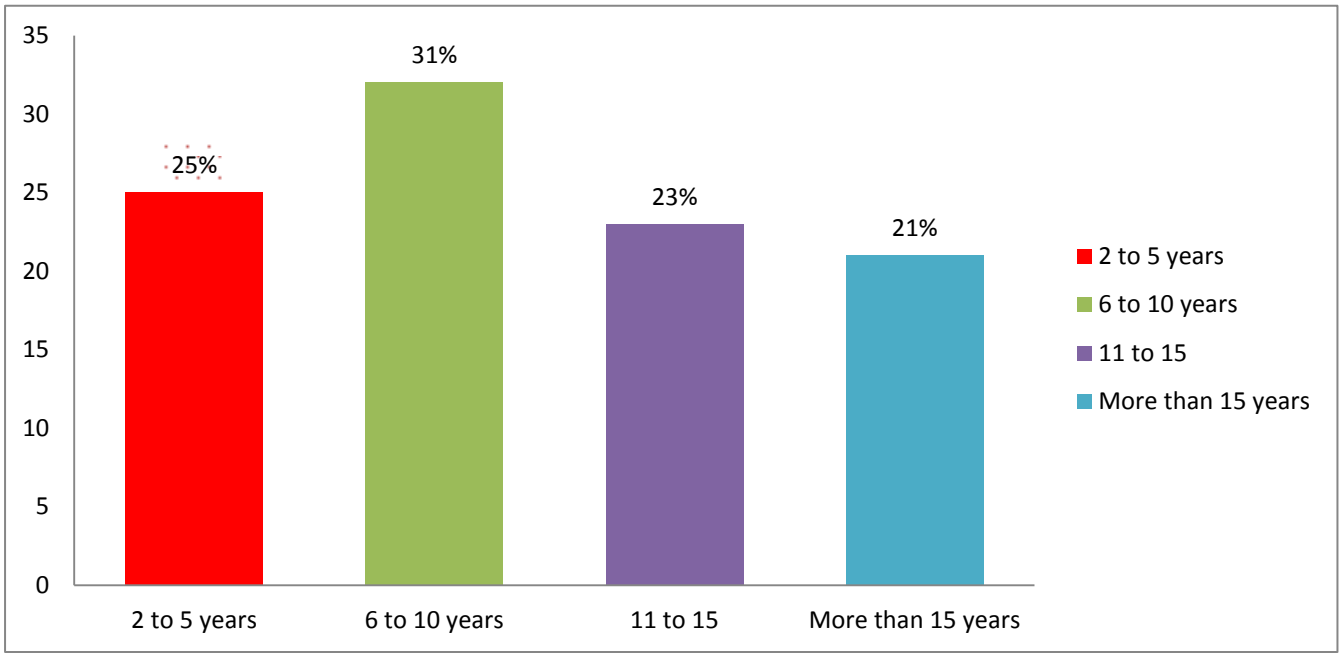

Figure 4.3: Work experience of the respondents, (n) =155

4.3.4. Number of patients seen per day at the clinic

Eighty-two professional nurses (53%) saw more than 40 patients per day, 39 (25%) saw between 30-40 patients per day, 29 (19%) saw between 20-30 patients per day, and only 5 (3%) saw less than 20 patients at the clinics per day.

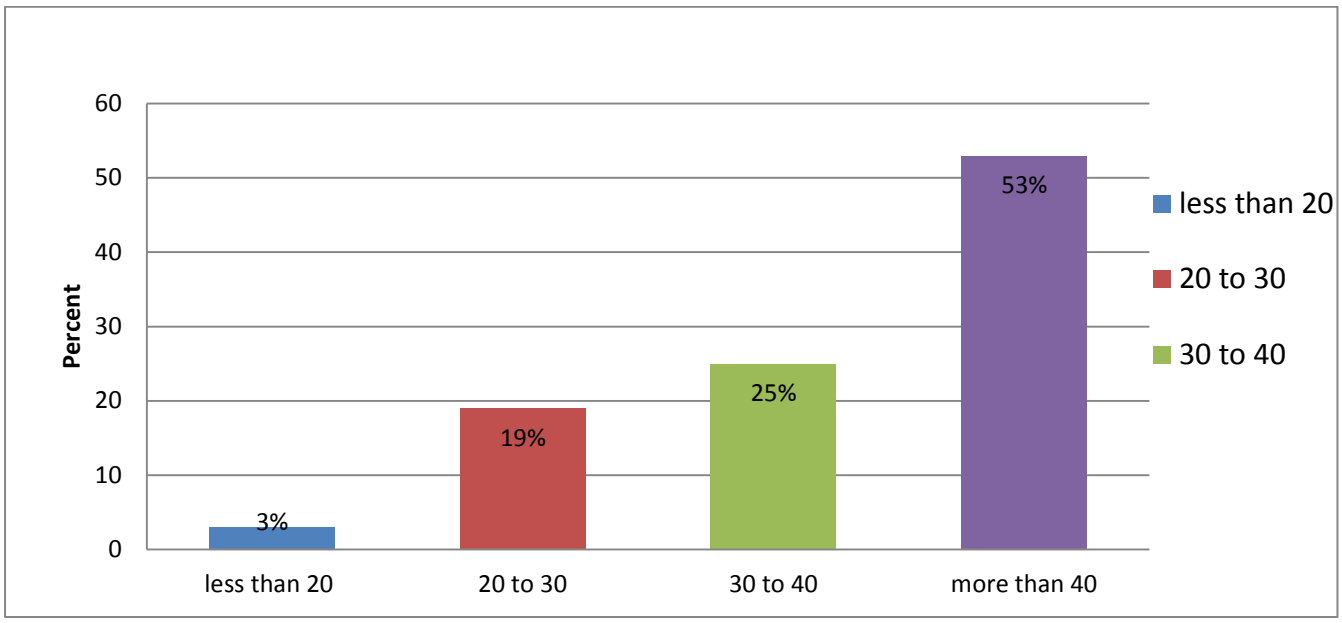

Figure 4.4: Number of patients seen at the clinic, (n) = 155

SECTION B

4.4. Factors related to the provision of health care services

This section presents the results on the factors related to the provision of quality healthcare services at the selected public rural clinics of the Capricorn District, Limpopo Province.

Table 4.1. The impact of working conditions on healthcare service delivery, (n) =155

Questionnaire items	Frequency of the responses (%)		
	Yes	No	Not sure
Are you overwhelmed with large numbers of patients?	129 (83%)	26 (17%)	0
Does absenteeism by other staff members affect the quality of healthcare services?	130 (84%)	19 (12%)	6 (4%)
Does the attitude of staff affect the quality of healthcare services at the clinic?	124 (80%)	23 (15%)	8 (5%)
Do patients tolerate the stipulated waiting time (2 hours) before services are rendered to them?	53 (34%)	88 (57%)	14 (9%)
Do the numbers of patients you see daily affect the quality of services rendered to the patients?	118 (58%)	29 (34%)	8 (8%)
Is infection control maintained at the clinic?	129 (83%)	19 (12%)	7 (5%)
Does cleanliness of the clinic affect rendering of quality healthcare services?	118 (76%)	29 (19%)	8 (5%)
Is the mission and vision of the clinics stated?	144 (93%)	5 (3%)	6 (4%)

4.4. The impact of working conditions on healthcare service delivery, (n) =155

The impact of working conditions in healthcare service delivery covered the following: whether the clinics are overwhelmed by large numbers of patients, the impact of absenteeism by other staff members, the attitude of staff, tolerance of patients to waiting for 2 hours before services are rendered to them, maintenance of infection control, whether cleanliness of the clinic affects rendering of quality healthcare services, and whether the mission and vision of the clinics are stated.

4.4.1. Are you overwhelmed by large numbers of patients?

The majority of the professional nurses 129 (83%) said that the clinics are overwhelmed by large numbers of patients, whereas 26 (17%) of the professional nurses said that the clinics are not overcrowded with large numbers of patients.

4.4.2. Does absenteeism by other staff members affect the quality of healthcare services?

The majority of the professional nurses 130 (84%) said that absenteeism by other staff members affects the quality of healthcare services, whereas 19 (12%) of the professional nurses said that absenteeism by other staff members does not affect the quality of healthcare services, and 6 (4%) were not sure if absenteeism by other staff members has an effect on the quality of healthcare services.

4.4.3. Does the attitude of staff affect the quality of healthcare services at the clinic?

Most professional nurses 124 (80%) said that the attitude of staff affects the quality of healthcare services at the clinic, whereas 23 (15%) professional nurses said that the staff attitude does not affect the quality of healthcare services, and 8 (5%) professional were not sure if the attitudes of staff affects the quality of healthcare services.

4.4.4. Do the patients tolerate the stipulated waiting time (2hours) before services are rendered to them?

More than half of the professional nurses 88 (57%) indicated that the patients do not tolerate the stipulated waiting time before health care services are rendered to them, as compared to 53 (34%) who indicated that patients do tolerate the stipulated waiting time, and 14 (9%) were not sure if the patients tolerate the stipulated waiting time before health care services are rendered to them.

4.4.5. Do the numbers of patients you see daily affect the quality of services rendered to the patients?

More than half of the professional nurses 90 (58%) indicated that the number of patients seen daily at the clinic does affect the quality of healthcare services rendered to the patients, whereas 53 (34%) of the professional nurses indicated that the number of patients seen daily at the clinic does not affect the quality of healthcare services rendered to the patients, while 12 (8%) were not sure.

4.4.6. Is infection control maintained at the clinic?

The majority of the professional nurses 129 (83%) said that the infection control is maintained at the clinics, whereas 19 (12%) of the professional nurses said that infection control was not maintained at the clinics, and 7 (5%) of the professional nurses were not sure.

4.4.7. Does cleanliness of the clinic affect rendering of quality healthcare services?

Most professional nurses 118 (76%) said that cleanliness of the clinic affects the rendering of quality healthcare services, while 29 (19%) professional nurses said that cleanliness of the clinics does not affect rendering of quality healthcare services, and 8(5%) were not sure if the cleanliness of the clinic affects the rendering of quality healthcare services.

4.4.8. Is the mission and vision of the clinics stated?

Almost all the professional nurses 144 (93%) said that the mission and vision of the clinic was stated, while almost an equal number, 5 (3%) and 6 (4%) respectively, said that it was not stated and were not sure if the mission and vision of the clinic were stated.

4.5 Skills of the professional nurses in healthcare, (n) =155

Skills of the professional nurses in healthcare covered the following: whether professional nurses have attended in-service training in the past six months, whether health education is given to the patients on a daily basis, the belief that quality healthcare services are rendered, and the number of professional nurses.

4.5.1. Have you attended in-service training in the past six months?

More than half of the professional nurses 105 (68%) had attended in-service training in the past six months, whereas 48 (31%) of the professional nurses had not attend in-service training in the past six months, and 2 (1%) were not sure if they have attended.

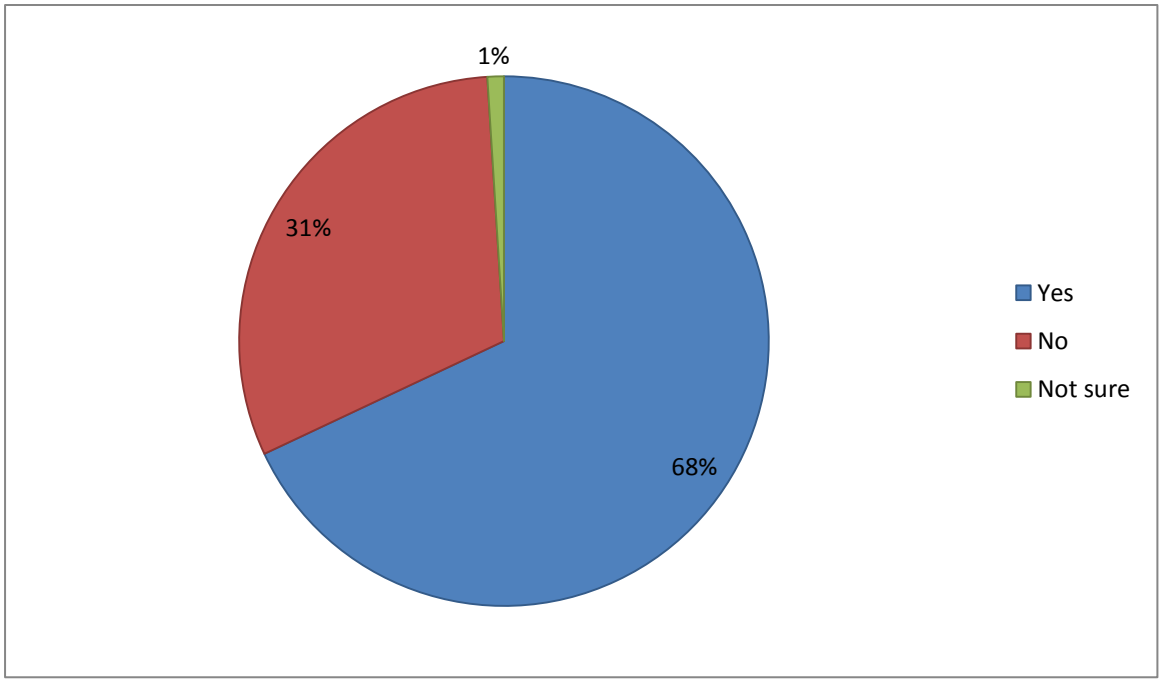

Figure 4.5: Have you attended in-service training in the past six months? n= 155.

4.5.2. Are the staff members trained to render quality healthcare services?

Most of the professional nurses 119 (77%) said that the staff members were trained to render quality healthcare services. whereas 20 (13%) said that they were not trained to render quality healthcare services, and 16 (10%) were not sure if the staff members were well trained to render quality of healthcare services.

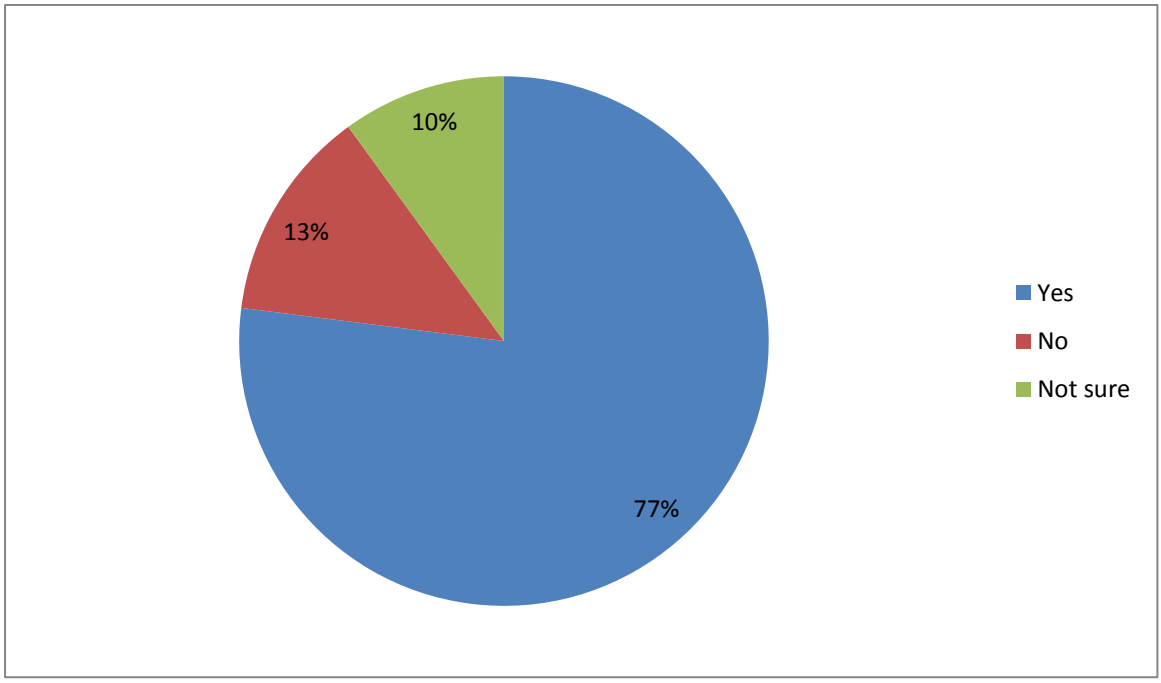

Figure 4.6: Are the staff members trained to render quality healthcare services? n=155

4.5.3. Do professional nurses give health education to the patients on a daily basis?

Almost all the professional nurses 149 (96%) indicated that health education was given daily, and a small number, 4 (3%) and 2 (1%) respectively, indicated that professional nurses did not give and were not sure if health education was given daily.

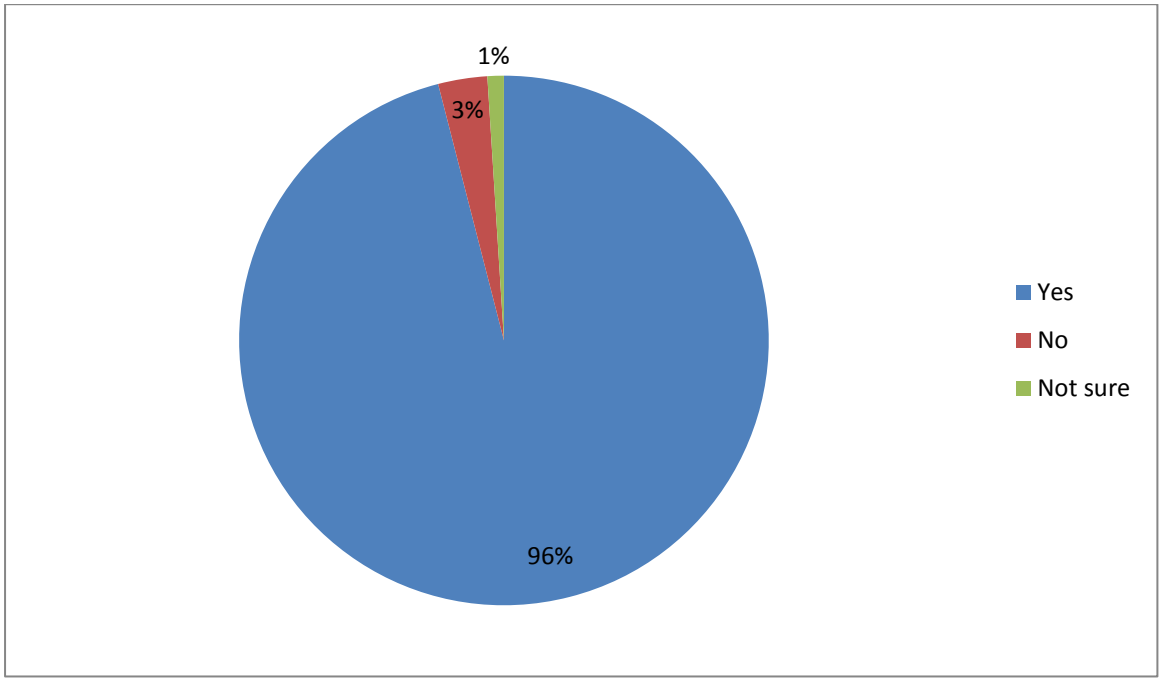

Figure 4.7: Do professional nurses give health education to the patient on a daily basis? n=155

4.5.4. Do you believe staff members render quality healthcare services to the patients?

The majority of professional nurses 125 (81%) believed that the staff members were rendering quality healthcare services to the patients, whereas 11 (7%) believe that the staff members were not rendering quality healthcare services to the patients, and 19 (12%) were not sure if the staff members were providing quality healthcare services to the patients.

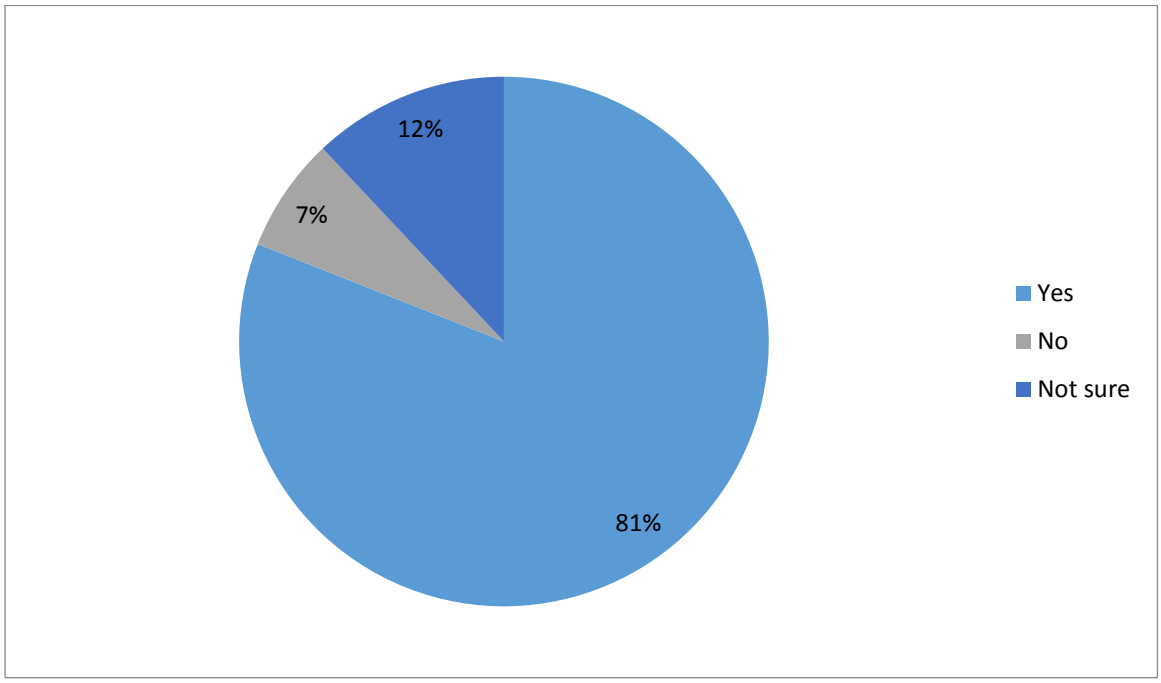

Figure 4.8: Do you believe staff members render quality healthcare services to the patients? n=155

4.5.5. Do you have the required number of professional nurses to render quality healthcare services?

Less than half of professional nurses 76 (49%) indicated that they have the required number of professional nurses, whereas 65 (42%) of the professional nurses said that they do not have the required numbers, and 14 (9%) were not sure if they have the required number of professional nurses to render quality healthcare services.

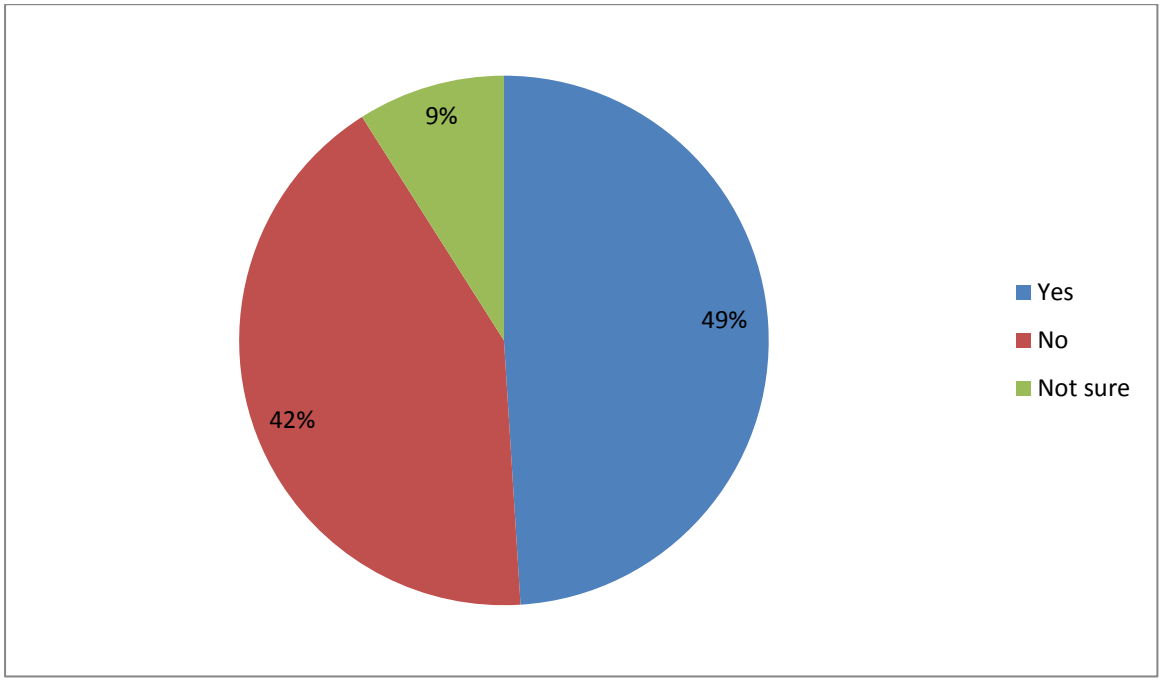

Figure 4.9: Do you have the required number of professional nurses to render quality healthcare services? n=155

4.6. Financial influence in healthcare sector, (n) =155.

Financial influence in the healthcare sector covered the following: whether professional nurses are involved in purchasing of medical equipment, the salary paid to professional nurses, the funds allocated to the clinic, whether government allocates enough funds for the smooth running of the clinics, the use of modern technology, and whether the high cost of modern technology affects the quality of healthcare services rendered.

Table 4.2 Financial influence in healthcare sector, (n) =155.

Questionnaire items	**Frequency of the responses (%)**		
	Yes	**No**	**Not sure**
Are the professional nurses involved in purchasing of the medical equipment?	79 (51%)	74 (48%)	2 (1%)
Are you satisfied with the salary that you are paid?	29 (19%)	124 (80%)	2 (1%)
Do the funds allocated to the clinic influence the quality of healthcare services rendered?	108 (70%)	36 (23%)	11 (7%)
Does government allocate enough funds for the smooth running of clinics?	36 (23%)	102 (66%)	17 (11%)
Does the clinic use modern technology to render quality healthcare services?	82 (53%)	60 (39%)	13 (8%)
Does the use of modern technology improve the quality of healthcare services?	116 (75%)	25 (16%)	14 (9%)
Does the high cost of modern technology affect the quality of healthcare services rendered?	42 (27%)	82 (53%)	31 (20%)

4.6.1. Are the professional nurses involved in purchasing of the medical equipment?

More than half of the professional nurses 79 (51%) reported that professional nurses are involved in purchasing of medical equipment, whereas 74 (48%) of the professional nurses reported that they were not involved, and 2 (1%) were not sure if professional nurses were involved in the purchasing of medical equipment.

4.6.2. Are you satisfied with the salary that you are paid?

Very few 29 (19%) professional nurses were satisfied with the salary they were paid, whereas the majority 124 (80%) were not satisfied with the salary they were paid, and only 2 (1%) were not sure.

4.6.3. Do the funds allocated to the clinic influence the quality of healthcare services rendered?

Most professional nurses 108 (70%) indicated that the funds allocated to the clinic influenced the quality of healthcare services rendered, while 36 (23%) said that the funds allocated to the clinic did not influence the quality of healthcare rendered, and 11 (7%) were not sure.

4.6.4. Does the government allocate enough funds for the smooth running of clinics?

Most professional nurses 102 (66%) said that the government does not allocate enough funds for the smooth running of the clinics, whereas 36 (23%) of the professional nurses said that the government allocated enough funds for the smooth running of the clinics, and 17 (11%) were not sure.

4.6.5. Does the clinic use modern technology to render quality healthcare services?

More than half of the professional nurses 82 (53%) said that the clinics use modern technology to render quality healthcare services, whereas 60 (39%) said that the clinic did not use modern technology to render quality healthcare services, and 13 (8%) were not sure.

4.6.6. Does the use of modern technology improve the quality of healthcare services?

Most professional nurses 116 (75%) said that the use of modern technology improves the quality of healthcare services, whereas 25 (16%) said that the use of modern technology does not improve the quality of healthcare services, and 14 (9%) were not sure.

4.6.7. Does the high cost of modern technology affect the quality of healthcare services rendered?

Forty-two 42 (27%) professional nurses said that the high cost of modern technology affects the provision of quality healthcare services, whereas 82 (53%) said that the cost of modern technology does not affect the provision of quality healthcare services, and 31 (20%) were not sure.

4.7. Resources in healthcare, (n) =155

Resources in healthcare covered the following: whether the clinics have enough medical equipment, whether the equipment is serviced on time, and whether the infrastructure of the clinic is suitable to render quality healthcare services.

Table 4.3. Resources in the healthcare, (n) =155

Questionnaire items	Frequency of the responses (%)		
	Yes	No	Not sure
Does the clinic have enough medical equipment to render quality healthcare services?	59 (38%)	94 (61%)	2 (1%)
Is the equipment serviced on time?	31 (20%)	116 (75%)	8 (5%)
Do you have enough consulting rooms at the clinics?	70 (45%)	85 (55%)	0 (0%)
Do staff members sustain injuries due to faulty equipment?	31 (20%)	101 (65%)	23 (15%)
Is the infrastructure of the clinic suitable to render quality healthcare services?	71 (46%)	70 (45%)	14 (9%)

4.7.1. Does the clinic have enough medical equipment to render quality healthcare services?

Most professional nurses 94 (61%) said that the clinics do not have enough medical equipment to render quality healthcare services, whereas 59 (38%) said that the clinics have enough medical equipment to render quality healthcare services, and only 2 (1%) were not sure.

4.7.2. Is the equipment serviced on time?

Most professional nurses 116 (75%) said that medical equipment was not serviced in time, whereas 31 (20%) said that the medical equipment was serviced on time, and 8 (5%) were not sure.

4.7.3. Do you have enough consulting rooms at the clinics?

More than half of the professional nurses 85 (55%) said that they do not have enough consulting rooms at the clinics, as compared to 70 (45%) who said that they do have enough consulting rooms.

4.7.4. Do staff members sustain injuries due to faulty equipment?

Most professional nurses 101 (65%) said that staff members do not sustain injuries due to faulty medical equipment, whereas 31 (20%) said that staff do sustain injuries due to faulty medical equipment, and 23 (15%) were not sure.

4.7.5. Is the infrastructure of the clinic suitable to render quality healthcare services?

Almost the same number of professional nurses, 71 (46%) and 70 (45%) respectively, said that the infrastructure of the clinic is suitable and not suitable to render quality healthcare services, and 14 (9%) were not sure if the infrastructure of the clinic was suitable to render quality healthcare services.

4.8. Staff evaluation in healthcare, (n) =155

Staff evaluation in healthcare covered the following: whether staff members free to voice their concerns, grievances dealt with fairly and if whether staff are satisfied with how performance evaluation are done.

4.8.1. Are staff members free to voice their concerns?

The majority of the professional nurses 116 (75%) said that staff members are free to voice their concerns, whereas 36 (23%) said that they are not free to voice their concerns, and 3 (2%) were not sure.

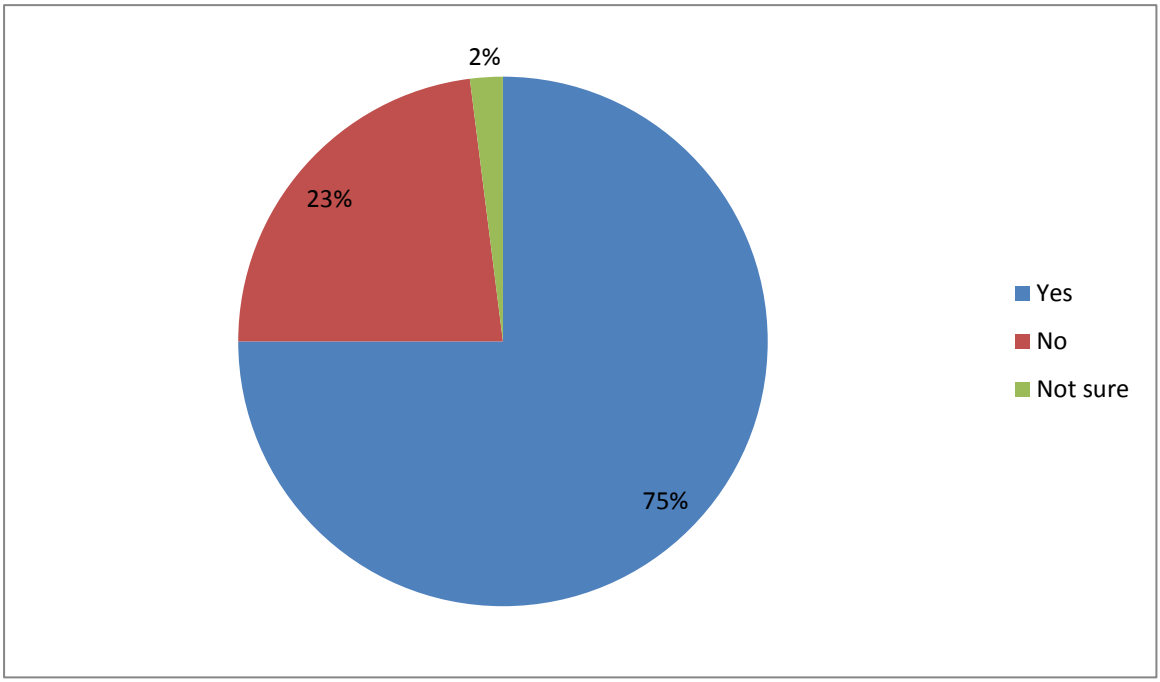

Figure 4.10: Are staff members free to voice their concerns to supervisors? n=155.

4.8.2. Grievances dealt with fairly?

More than half of the professional nurses 82 (53%) said that grievances were dealt with fairly, whereas 61 (39%) said that grievances were not dealt with fairly, and 12 (8%) were not sure.

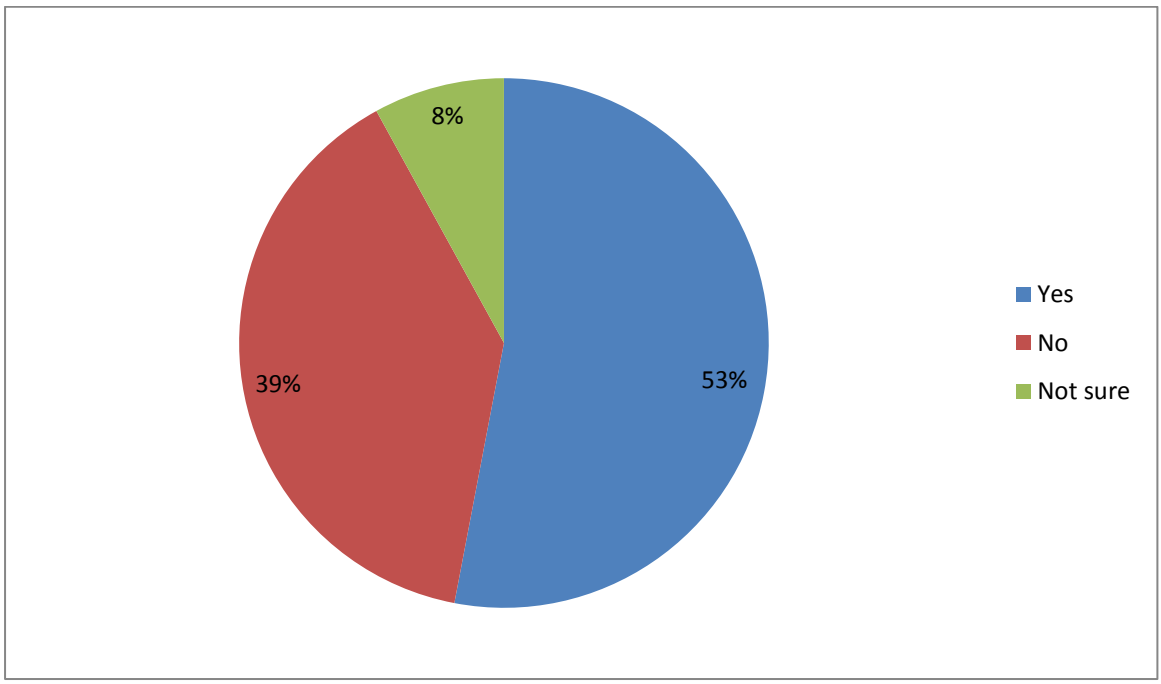

Figure 4.11: Are grievances dealt with fairly? n=155.

4.8.3. Are you satisfied with the way performance evaluations are done?

Almost half of the professional nurses 75 (48%) were not satisfied with the way performance evaluations were conducted, whereas 71 (46%) were satisfied with how they were conducted, and 9 (6%) were not sure.

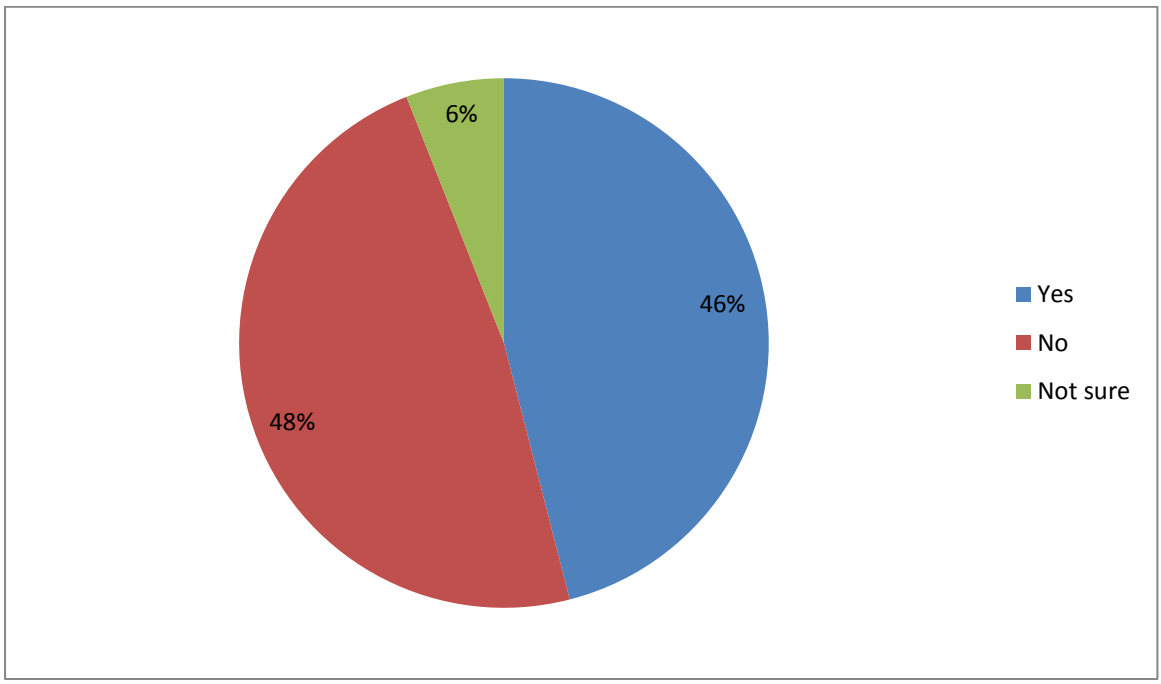

Figure 4.12: Are you satisfied with the way performance evaluations are done? n=155

4.9. Conclusion

This chapter showed the results of the study from the demographic data, which included: gender, educational level, work experience, operating hours, nature of appointment and number of patient seen at the clinics. Furthermore, the results on factors affecting the provision of quality healthcare services at selected public clinics in the rural areas of the Capricorn District, Limpopo Province were interpreted. The results on the factors was interpreted under the following headings: working conditions, skills of the professional nurses in healthcare, financial influence on the healthcare, resources in healthcare and supervision.

A structured questionnaire was answered by 155 professional nurses with a response rate of 100%.The next chapter discusses the findings of the results in details. A literature review conducted on studies done by other researchers worldwide on factors related to the provision of quality health care services and the theory of Larrabee's is used in discussion of the results.

CHAPTER 5

DISCUSSION OF RESULTS

5.1. Introduction

The previous chapter analysed the findings of the study on the factors related to the provision of quality healthcare services at selected public clinics in the rural areas of the Capricorn District Limpopo Province. This chapter discusses the findings of the research study based on the factors related to the provision of quality healthcare services, and discussed using Larrabee's theory (1996).

5.2. Section A - Demographic data

Demographic data covers the gender of the respondents, qualifications of the respondents, work experience of the respondents, operating hours of the clinics, nature of appointment of the professional nurses, and number of patients seen per day at the clinics.

5.2.1. Gender of the respondents

There were more female professional nurses 104 (67%) than male professional nurses 51 (33%) in the public rural clinics of the Capricorn District. According to the results of a study conducted by Sisinyana and Davhana-Maselesele (2016), on the level of job satisfaction amongst nurses in North-West, South Africa, there were more female nurses (92.4%) than male nurses (7.6%). The findings of another study conducted by Miho, Ikue and Kyoko (2013), in Japan of a sample 1241 professional nurses, 95.6% were females and 4.4% were males.The main reason for there being more female nurses than male nurses could be due to the fact that the nursing profession has been regarded as a female profession in the past, and has thus failed to attract more males (Klaas, 2007). Although, there are more female than male professional nurses, this study did not investigate if gender has an effect on the quality of healthcare services rendered.

The results of a census report conducted in South Africa by Casselman (2013), men made up close to 10% of all professional nurses in 2011. This figure may not seem significant; however, it has improved from less than 3% in 1970 and less than 8% in 2000. The South African Nursing council (2013a), showed that, although the number of male nurses has increased in the nursing profession over the past 10 years, the gap between the numbers of males compared to females is far from closing. It is important to note, however, that when recruiting people into the profession, there is no particular focus on gender because the responsibility of nurses is not gender specific.

5.2.2. Qualifications of the respondents

This study found that most professional nurses 93 (60%) had a diploma in nursing, while the remaining had either a bachelor degree 51 (33%), a master's degree 7 (4%), or had other qualifications 4 (3%). The results of this study are corroborated by a study conducted by Ammouri, Raddaha, Dsouza, Geethakrishnan, Noronha, and Obeidat (2014), of the 414 nurses recruited from the four national healthcare sectors referral in Oman. In that study, the majority of nurses had a diploma (65.4%) or a bachelor's degree (34.6%). Similarly, a study conducted by Sisinyana and Davhana-Maselesele (2016) found that there were more professional nurses who had obtained a diploma (78.3%) as compared to those with a degree (21.7%).

The high number of professional nurses with a Diploma in Nursing could be attributed to the fact that they receive a monthly stipend during their training, whereas university nursing students do not get this monthly stipend. The stipend can be used to buy books and uniforms for practical's, or other basic needs. The training of both college and university students is the same according to R425 of the South African Nursing Council (South African Nursing Act, 1978). Furthermore, on completion of their studies they all receive the same salary in the workplace.

5.2.3. Work experience of the respondents

The findings of this study revealed that 39 (25%) professional nurses had 3 to 5years work experience, 49 (31%) had 6 to 10 years, 35 (23%) had 11 to 15 years and 32 (21%) had more than 15years work experience. According to a study conducted by Kanai-Pak, Aiken, Sloane and Poghosyan (2008), in healthcare facilities with 50% inexperienced nurses (nurses with less than 4 years of experience), the level of burnout, job dissatisfaction and poor quality nursing care was twice as high. Although experience is necessary, it is not a sufficient condition for expertise. Work experience in the same or similar situations may create competence. However, experience does not automatically confer expert status (Kanai-Pak et al., 2008).

In contrast, the results of studies conducted by McHugh and Lake (2010) and Clarke and Donaldson (2008), revealed that a higher proportion of nurses with more than 5 years of experience were associated with fewer medication errors and fewer patient fall rates. It was further stated that the quality of care that nurses provide is influenced by individual nurse's characteristics such as knowledge and experience (Clarke & Donaldson, 2008). The more experience a nurse has beyond 5 years, the better the quality of healthcare services rendered to the patients (McHugh & Lake, 2010).

5.2.4. Number of patients seen per day at the clinic

The findings of this study reveal that professional nurses attend to more patients on a daily basis; 82 (53%) professional nurses saw more than 40 patients per day, and 39 (25%) saw between 30-40 patients per day. In South Africa, while nurses in PHC consider a nurse-patient ratio of 1:35 to 1:40 to be the norm, clinics have ratios from 1:40 to 1:90 (Hartley, 2005). Overworked staff face the trauma and stress of working with increasing numbers of Human Immunodeficiency Virus and Acquired Immunodeficiency Syndrome (HIV/AIDS) patients as challenge that places the

resources of the clinics and staff under strain (Hartley, 2005). In this study, professional nurses were not asked why they attend more than 40 patients daily;

however, this could be due to the HIV/AIDS pandemic. Since 2012, the number of HIV/AIDS patients has risen from 13% to 40% across all the provinces in South Africa, in the clinics and community health centres (National Health Care Facilities Baseline Audit, 2012).

A cross sectional descriptive study conducted in Pretoria, South Africa by Masango-Makgobela, Govender and Ndimande (2013), revealed that Tafelsig clinic had the highest number of patients seen per day. It was reported that patients had to return to the clinic two or more days in a row if they were not seen the previous day, and many had to come to the clinic weekly if they were on certain treatment regimens, like patients suffering from tuberculosis (Masango-Makgobela, Govender, & Ndimande, 2013).

Marjorie (2015) argues that increases in numbers of patients in the clinics is probably due to access to healthcare services at the clinics being free in South Africa; however, in many instances the quality of healthcare services rendered is poor. In this study, the increased number of patients in the public rural clinics could be due to the fact that in South Africa all patients must start at the PHC level before they are referred to the next level, if necessary.

5.3. The impact of working conditions on healthcare

The impact of working conditions in healthcare will cover whether the clinics are overwhelmed by large numbers of patients, the impact of absenteeism by other staff members, the attitude of staff, tolerance of patients to waiting for 2 hours before services are rendered to them, maintenance of infection control, whether cleanliness of the clinic affects rendering of quality healthcare services, and whether the mission and vision of the clinics are stated.

5.3.1. Are you overwhelmed by large numbers of patients?

The findings of this study showed that the majority of the professional nurses 129 (83%) said that they were overwhelmed by large number of patients. A concurring study conducted in the United States by Robert, Derlet, Richards and Kravitz (2006), revealed that 525 (91%) of the nurses reported being overwhelmed by patient numbers as a major problem. Being overwhelmed by patient numbers in the United States clinics was due to an increase in the number of patients visiting the clinics on a daily basis. Furthermore, being overwhelmed by the number of patients in the clinics leaves healthcare professionals with less time to attend to all patients, which leads to some patients having to return home without receiving healthcare services (Robert et al., 2006).

In South Africa, there are 4200 public health facilities, and the number of people per clinic is 13 718, exceeding WHO guidelines of 10 000 per clinic (National Treasury, 2012). This could be due to the fact that in South Africa all patients must start at PHC level before they are transferred to hospitals, if it is necessary. In the North West, the Department of Health (2014) reported that some clinics provide a 24-hour service and approximately 300 patients visited the clinic per day. Overall, the clinic day shift consisted of 5 professional nurses, which resulted in one nurse attending to approximately 60 patients (1:60), thus exceeding the national norm of 1:40 patient to nurse ratio(Department of Health,2014). Being overwhelmed by patient numbers can only endanger the patients due to the mistakes that are more likely to happen once nurses have worked beyond a certain number of patients or after attending to too many patients (Tuten, 2012).

5.3.2. Does absenteeism by other staff members affect the quality of healthcare services?

The majority of the professional nurses 130 (84%) said that absenteeism by other staff members affects the quality of healthcare services. The findings of the current study

concur with those of a study conducted by Tinubu, Mbada, Oyeyemi, and Fabunmi (2010) in Nigeria with nurses of Ibadan in the South-West of Nigeria, which revealed that 84.4% of the nurses stayed away from work, which affects the healthcare services. Another study that corroborates these findings is a study conducted by Marques, Pereira, Souza, Vila, Almeida and Oliveira (2015), on absenteeism and illness amongst nursing staff, revealed that 73.6% of the nurses stayed away from work. Absenteeism is one of the causes of poor quality healthcare services in many public rural areas of developing countries. Absenteeism has led to some healthcare facilities in the public clinics of Brazil to open and close irregularly, affecting the healthcare services rendering to the patients (O'Donnell, 2007).

5.3.3. Does the attitude of staff affect the quality of healthcare services at the clinic?

Most professional nurses 124 (80%) said that the attitude of staff affects the quality of healthcare services in the clinics. A study conducted by Haskins, Horwood, Grant and Phakathi (2014), revealed that nurses had a negative attitude towards patients and it affected the quality of healthcare they rendered to these patients. In addition, they verbally abused patients, and in some cases they neglected patients by withholding care. In a study conducted in Ethiopia by Belete, Lamaroand Henok (2015), on assessment of the nurses' attitude towards patients revealed that only half 64(50%) of the nurses agreed that the negative attitude of nurses affects the quality of healthcare services. Perhaps, until nurses' negative attitudes towards patients is addressed, it will remain impossible to render quality healthcare services in the public rural clinics.

5.3.4. Do the patients tolerate the stipulated waiting time (2hours) before services are rendered to them?

More than half of the professional nurses 88 (57%) indicated that the patients do not tolerate the stipulated waiting time before services are rendered to them. This finding is consistent with a study conducted by Oche and Adamu (2013), which revealed that 61% of the respondents waited for 60-90 minutes in the clinic and did not

tolerate the time they waited before services were rendered. The most common reason for the long waiting time before services were rendered was the large number of patients with few healthcare workers in the clinic (Oche & Adamu, 2013). According to a report by the National Department of Health (2015a), on the management of patient waiting times, reported that due to the complexity of services that are provided by various levels of clinics and hospitals in South Africa, and through consultations across the public health spectrum, the average patient waiting time for healthcare services in primary health care is 2 hours, and total time spent by a patient per visit is 3 hours.

5.3.5. Is infection control maintained at the clinic?

The majority of the professional nurses 129 (83%) said that infection control is maintained in the clinic, whereas 19 (12%) said that infection control was not maintained at the clinic, and 7 (5%) were not sure. In contrast, a report by Dunjwa (2016) on the maintenance of infection control in the clinics of the Limpopo Province inspected, found that there was a problem with infection control. The report revealed that of the clinics inspected, 30 of the clinics scored between 30%-39% and 13 scored between 20%-29%, whereas none of the clinics obtained 100%, indicating the severity of the problem in the Limpopo Province. It is not clear if most nurses who said infection control was maintained in the clinics were influenced by the fact that they were briefed about infection control in 2016 (Dunjwa, 2016).

5.3.6. Does cleanliness of the clinic affect rendering of quality healthcare services?

Most professional nurses 118 (76%) said that cleanliness of the clinic affects the rendering of quality healthcare services. According to a study conducted by a Rupp,

Olson, Cavalieri, Lyden, and Carling (2017), environmental surfaces were assessed in the 8 clinics and the overall rate of cleanliness ranged from 29% to 77% for examination rooms, common clinic areas, and waiting rooms respectively.

Cleanliness of the clinics affects healthcare services because clinics play an important role in the transmission of potential healthcare pathogens and infections (Boyce, 2007). According to the findings by Rupp et al., (2017) and Boyce (2007), the environment where healthcare services are rendered should be clean at all times to prevent cross-infection. Furthermore, patients may experience a decrease in self-worth and dignity in a healthcare sector that lacks cleanliness (George, 2010).

5.3.7. Is the mission and vision of the clinics stated?

According to the findings of this study, a high percentage (93%) of the professional nurses stated the mission and vision of the clinics are stated. It is possible that the mission and vision were stated following the launch of the National Health Insurance in 2015 (National Department of Health, 2015). Since this initiative, most of the clinics started working towards achieving the missions and visions, set as a way of systematically improving and correcting deficiencies in PHC clinics in the public sector (National Department of Health, 2015). In this study, professional nurses were not asked about the impact of mission and vision statements.

5.4. Skills of the professional nurses in healthcare

Skills of the professional nurses in healthcare will cover whether professional nurses have attended in-service training in the past six months, whether health education is given to the patients on a daily basis, the belief that quality healthcare services are rendered, and the number of professional nurses.

5.4.1. Have you attended in-service training in the past six months?

In this study, more than half of the professional nurses 105 (68%) had attended the in-service training in the past six month. In contrast, a study conducted by Eygelaar and Stellenberg (2012), revealed that most of the participants (professional nurses) in rural hospitals of South Africa 212 (76%) indicated that they were not receiving continuing

in-service training in healthcare. Although, in this study, nurses were not asked about the benefits of attending in-service training, a report by the DoH in the United Kingdom (2011), indicated that healthcare professionals are experts in their fields, but may need further education and training so that they feel confident in other healthcare areas. In addition, it was also reported that further education and workshops will help to keep healthcare professionals up to date with what is changing in the healthcare sector, such as new medications and more advanced equipment (DoH UK, 2011).

Larrabee's theory (1996) includes ethical and economic concept, beneficence. The theory states that beneficence is when the expected outcomes in healthcare goals for the wellbeing of patients are potentially beneficial, and interventions in healthcare are designed to actualise goal achievement and are therefore indicators of quality (Larrabee, 1996). Therefore, in this study, if professional nurses regularly receive in-service training, it will be beneficial to the patient as the goal of quality healthcare services will be achieved through healthcare services rendered to them by competent and in-service trained professional nurses.

5.4.2. Do professional nurses give health education to the patient on a daily basis?

Almost all the professional nurses 149 (96%) indicated that health education was given on a daily basis. A corroborating study conducted by Samancioglu, Donmez, Surucu and Cevik (2017), in Turkey, revealed that out of 180 nurses, 136 (75.6%) were giving health education in the clinics. In contrast, a study conducted by

Kääriäinen and Kyngäs (2010), on the quality of patient education, revealed that 54% of the professional nurses were not giving health education on a daily basis. In this study, professional nurses were not asked if giving health education on a daily basis improves the quality of healthcare services rendered to patients. A study conducted by Bosch-Capblanc, Abba, Prictor and Garner (2009), reported that health education by nurses can lead to many positive health outcomes, including adherence, quality of life, patients knowledge of their illness, and self-management.

5.4.3. Do you believe staff members render quality healthcare services to the patients?

The majority of professional nurses 125 (81%) believed that the staff members were rendering quality healthcare services to the patients. The results of this study are corroborated by a survey report by the Minister of Health in Tanzania (2006), which revealed that in Tanzania they believed that quality healthcare services were rendered by healthcare professionals in over 75% of public facilities (Rashidi, 2007). In contrast, a study conducted by Eygelaar & Stellenberg (2012) on barriers to quality patient care in rural district health facilities in South Africa, revealed that the majority of the professional nurses 263(96%) disagreed that staff were rendering quality healthcare services to the patients. This is supported by a report in San Diego by Wendy (2013), which reported that 67% of the registered nurses revealed that they generally believe that quality patient care is not rendered and is continuing to decline.

According to Larrabee's theory (1996), goal setting in healthcare is often done by the healthcare providers without collaborating with patients. In this study, the majority of professional nurses (81%) believed that staff are rendering quality healthcare services to the patients, although according to Larrabee (1996), this presumes that providers always know what is best for patients. Perhaps a collaboration between healthcare professionals and patients would produce more effective goal achievement of quality healthcare services.

5.4.4. Do you have the required number of professional nurses to render quality healthcare services?

Less than half of the professional nurses 76 (49%) indicated that they have the required numbers to render quality health care services, whereas 65 (42%) professional nurses said that they do not have the required numbers. In 2015, 133127 professional nurses were registered with the South African Nursing Council nationally, only slightly more than half (68105) work in public healthcare. The nursing shortage is a challenge in South Africa, especially since the nurses are at the forefront of the rapidly changing health care system and constitute more than 70% of the health work force in South Africa, yet there is still a gross shortage of professional nurses (Wilmot, 2016).

The Democratic Nursing Organisation of South Africa (DENOSA, 2007) reported that there is a serious problem with shortage of nurses in South Africa due the fact that South Africa is not training and producing enough nurses (DENOSA, 2007). In addition, the shortage of professional nurses is not only a national problem but is recognised to be a universal problem (DENOSA, 2007). In support of DENOSA (2007), Buchan and Aiken (2008) reported that the shortage of nurses is anticipated to continue until the developed countries address the shortage of nurses, and developing countries manage the factors associated with recruiting more nurses.

5.5. Financial influence in the healthcare sector

Financial influence in the healthcare sector will cover whether professional nurses are involved in purchasing of medical equipment, the salary paid to professional nurses, the funds allocated to the clinic, whether government allocates enough funds for the smooth running of the clinics, the use of modern technology, and whether the high cost of modern technology affects the quality of healthcare services rendered.

5.5.1. Are the professional nurses involved in purchasing of the medical equipment?

Almost an equal number of professional nurses 79 (51%) reported that professional nurses are involved in purchasing of medical equipment, versus 74 (48%) of the professional nurses who reported that they were not involved, and 2 (1%) were not sure if professional nurses were involved in the purchasing of medical equipment. According to Lewis (2005), a study conducted in New York reported that 75% of the time nurses are involved in the planning and purchasing of equipment. It is not clear whether this is by chance or whether it is because the nurses are more satisfied with

working with equipment that they have recommended (Lewis, 2005). According to Larrabee's theory (1996), when healthcare professionals are involved in planning, they select expected outcomes that are anticipated to promote the patients well-being and they select interventions anticipated to achieve the outcomes of quality healthcare. According to Larrabee's theory (1996), achieving the outcomes of quality healthcare can be viewed as beneficial. Therefore, involving more professional nurses in planning and purchasing of medical equipment in the clinics could possibly lead to the attainment of the goal to render quality healthcare services.

5.5.2. Are you satisfied with the salary that you are paid?

The majority of the professional nurses 124 (80%) were not satisfied with the salary that they were paid. The findings of this study are similar to a quantitative study conducted by Tshitangano (2013), on data collected from 141 respondents about nurses' assessing public sector nurses salaries in the Limpopo Province. This study revealed that 78.8% of the nurses were dissatisfied with the salaries they were paid. A corroborating study conducted by Fochsen, Sjogren, Josephson and Lagerstrom (2005), revealed that unsatisfactory salaries contributed most to nursing personnel's decision to resign, which leads to shortage of staff on duty and hinders the provision of quality healthcare services to patients.

In a similar study conducted by McCoy, Bennett, Witter, Pond, Baker, Gow, Chand, Ensor and McPake (2008), pay and income have been described as factors that affect motivation, performance, morale, and the ability of healthcare professionals on duty to render quality healthcare services. When pay is low, healthcare professionals moonlight to supplement their incomes by providing healthcare services privately, which leads to fatigue from working extra hours, which affects the quality of healthcare services rendered (McCoy et al., 2008). In Kenya, a study conducted by Murumba (2017), reported that the quality of healthcare services was compromised as nurses did not report to work due to the fact that they have indicated that they will not continue to sacrifice their wellbeing for the health of the patients, as government has no respect for their work by paying them poor and insufficient salaries.

According to studies by Oosthuizen and Ehlers (2007) and Egerdahl and Casale (2010), nursing is a notoriously poorly paid profession; it is believed that an estimated 18% of South Africans professional nurses do not practice due to the insufficient salaries. In addition, more South African nurses may migrate to developed countries because there is a huge gap in salaries between professional nurses in developed countries as compared to South Africa. For instance, in countries like the United States of America, professional nurses can earn a salary 32% higher than what they would earn in South Africa (Oosthuizen & Ehlers 2007; Egerdahl & Casale 2010).Due to the shortage of professional nurses in South Africa, nurses need to be prioritised to ensure that there are enough staff available to meet the increased demand for quality healthcare services in the country.

5.5.3. Do the funds allocated to the clinic influence the quality of healthcare services rendered?

Most professional nurses 108 (70%) indicated that the funds allocated to the clinic influenced the quality of healthcare services rendered, while 36 (23%) said that the funds allocated to the clinic does not influence the quality of healthcare rendered, and 11 (7%) were not sure. The findings of this study are similar to a study conducted by Ayodo, Muiruri, Wanjau and Kenneth (2012) in Kenya on the factors affecting the provision of quality services in the public health sector. The findings of

this study revealed that 95% of the respondents indicated that finances allocated to the clinic influences the provision of quality services in the public health sector in Kenya, while 5% said that they were not sure (Ayodo et al., 2012).The professional nurses were not asked why they said funds allocated to the clinic influences the quality of healthcare; however, it could be due to the fact that funds would be used to provide adequate resources.

5.5.4. Does the government allocate enough funds for the smooth running of clinics?

Most professional nurses 102 (66%) said that the government does not allocate enough funds for the smooth running of the clinics, whereas 36 (23%) of the

professional nurses said that the government does allocate enough funds for the smooth running of the clinics, and 17 (11%) were not sure. The bulk of health sector funding comes from South Africa's National Treasury. According to the National Treasury (2012), the National Department of Health allocates funding through the different provincial programs. Public healthcare spending accounts for 14% of the total government expenditure and represents about 4% of the gross domestic product (GDP), which is below the international standard recommended by WHO of 5% of GPD to be allocated to public healthcare (National Treasury, 2011).

In 2012, R122.4 billion was allocated by government to the public sector, which services 84% of the population or 42 million people, who generally rely on the public health sector. How these resources are allocated and the standard of health care delivered varies from province to province (National Treasury, 2012). However, no PHC financing policy allocation mechanism is in place to ensure that funding is in line with the set of packages that needs to be delivered, despite the importance of PHC in meeting National Health policy goals (National Treasury, 2011). According to Larrabee's theory (1992), the costs of health care and quality must be balanced to provide the public with quality health care at a reasonable price. However, when the

cost of health care is bound entirely by an individual, decisions made about what care or how much care are personal (Larrabee, 1992).

5.5.5. Does the use of modern technology improve the quality of healthcare services?

The findings of this study indicated that most professional nurses 116 (75%) said that the use of modern technology improves the quality of healthcare services. The findings of this study are corroborated by a study conducted in Kenya by Ayodo, Muiruri, Wanjau and Kenneth (2012), which revealed that most of the healthcare professionals (64%) indicated that the use of modern technology improved healthcare service delivery, whereas a few (36%) indicated no improvement with the use of modern technology in healthcare. According to a report in America by Kruger (2010), technology has changed and improved healthcare by providing new

machines, medicines and treatments that save lives and improves the chance of recovery for billions of patients. It was further stated that, not only do medical practices help patients heal directly, new technology has also improved research so expertise can make healthcare even more effective (Kruger, 2010). For example, the results of laboratory tests, records of vital signs, and medicine orders are all electronically stored in a main database that can be referred to (Kruger, 2010). In support, a study by Ngabo, Nguimfack and Nwaigwe (2012) in Rwanda, found that the use of modern technology in healthcare improves the quality of healthcare services rendered. According to Larrabee (1992), benefits achieved in the health care sector will in turn influence patient perceptions of quality, depending on the relative value of the benefits to the patient. In this study, 116 (75%) of the professional nurses said that the use of modern technology improves the quality of health care services, therefore, the expected outcomes in health care goals for the wellbeing of the patients will be beneficial to the patients.

5.5.6. Does the high cost of modern technology affect the quality of healthcare services rendered?

Forty-two 42 (27%) professional nurses said that the high cost of modern technology affects the provision of quality healthcare services, whereas 82 (53%) said that the cost of modern technology does not affect the provision of quality healthcare services, and 31 (20%) were not sure. According to a study conducted by Kumar (2011)on technology and healthcare costs, healthcare is increasingly driven by digital technology, yet healthcare is becoming increasingly expensive and out of reach for the poor patient. Many healthcare professionals equate progress in the increased use of technology that is often expensive and beyond the reach of the average citizens in the public areas, to compromised quality of healthcare services rendered in the public health sectors (Kumar, 2011).

5.6. Resources in healthcare

Resources in healthcare will cover whether the clinics have enough medical equipment, whether the equipment is serviced on time, and whether the infrastructure of the clinic is suitable to render quality healthcare services.

5.6.1. Does the clinic have enough equipment to render quality healthcare services?

The findings of this study indicate that 94 (61%) professional nurses said that the clinics do not have enough medical equipment to render quality healthcare services. In a study conducted by Eygelaar and Stellenberg (2012), on the barriers to quality patient care in rural health facilities, it was reported that the majority of the participants (professional nurses) 108 (91%) indicated that they do not have enough equipment to render quality healthcare services. According to a report by WHO (2006a), resources such as equipment are not allocated where they are needed most, that is in rural poor health care sectors, but are instead allocated to health

facilities in the large urban cities (WHO, 2006a). According to Larrabee's theory (1996), patient realistic goals of receiving quality health care services will not be achieved if the resources are limited in the health care sectors. In this study, 94 (61%) professional nurses said that the clinics do not have enough medical equipment, which will be viewed as imprudent by the patient because quality health care services will not be attained due to limited resources in the public clinics.

5.6.2. Is the equipment serviced on time?

Most professional nurses 116 (75%) said that medical equipment was not serviced in time for use. A study conducted by Eygelaar and Stellenberg, (2012) on the barriers to quality patient care in rural district health facilities, revealed that maintenance of medical equipment was a serious challenge experienced by professional nurses. The findings of the study revealed that in 106 (90%) of the clinics, equipment was

not serviced on time. In two clinics in the North West Province (Unit 9 & Dryhart clinics), professional nurses complained that lack of maintenance of equipment resulted in clinics being without key equipment for considerable periods (Department of Health, 2014). It was further stated that damaged equipment was continuously used by healthcare professionals, which could lead to more damage and inaccurate results (Department of Health, 2014).

5.6.3. Is the infrastructure of the clinic suitable to render quality healthcare services?

Almost the same number of professional nurses 71 (46%) and 70 (45%), respectively said that the infrastructure of the clinic is suitable and is not suitable for the rendering of quality healthcare services. Two previous studies conducted in Ghana, reported that the infrastructure of the clinics was not suitable for the rendering of quality healthcare services (Scholz, Ngoli & Flessa, 2015; Baffaour, Rominski, Nakau, Gyakobo & Lori, 2013). Healthcare services in Ghana were often rendered in buildings and rooms with roof leakages. In South Africa, according to

Minister of Health Motsoaledi (2014), the infrastructure in the poor public healthcare clinics is one the main reasons why free quality healthcare fails. The report further stated that clinics would ensure rendering of quality healthcare services to the community through good infrastructure (Motsoaledi, 2014). The respondents who said that the clinic infrastructure was not suitable for the rendering of quality healthcare in this study were not asked to describe the infrastructure.

5.7. Are you satisfied with the way performance evaluations are done?

Almost half of the professional nurses 75 (48%) were not satisfied with the way performance evaluation were conducted, whereas 71 (46%) were satisfied with how they were conducted, and 9 (6%) were not sure. A study conducted in Kenya and Benin by Mathauer and Imoff (2006), using in-depth interviews, revealed that 40% of the respondents from Benin and 60% from Kenya were not satisfied with how their performance evaluations were done, and perceived it to be an act of control and criticism as their performance evaluations were not based on how they perform in the healthcare sector. According to a study conducted by Ganesh and Shanker (2014), in Asia, the primary reason for having a performance evaluation program is to monitor employee's performances, motivate staff, and to improve the quality of healthcare services they render. When employees are aware that the management of the hospital or PHC are mindful of their performances and that they could be rewarded with increment and promotions, they will work harder to improve the quality of healthcare services (Ganesh & Shanker, 2014).

5.8. Conclusion

Chapter 5 discussed the study results on demographic data and the factors related to the provision of quality healthcare services at selected public clinics in the rural areas of the Capricorn District, Limpopo Province. The next chapter discusses the summary, strategies, recommendations, limitations and conclusion of the study.

CHAPTER 6

SUMMARY, LIMITATIONS, RECOMMENDATIONS, AND CONCLUSION

6.1. Introduction

The previous chapter (5) discussed the study results. This chapter discusses the summary, limitations, recommendations, and conclusion for the research conducted. The recommendations for this study are based on the findings discussed in the previous chapter. The limitations experienced during the period of the study are presented.

6.2. Re-statement of the problem statement

According to Brink, Van der Walt and Van Rensburg (2014), a problem statement is defined as an area of concern in which there is a gap or a situation in need of a solution, improvement or alteration, or in which there is a discrepancy between the way things are and the way they ought to be.

The Department of Health (DoH) has established a National Health Insurance (NHI) plan, with the aim of ensuring that everyone in the country has access to appropriate, efficient and quality health services (DoH, 2011). The DoH further stated that the NHI will promote equity and efficiency so as to ensure that all South Africans have access to affordable, quality health care services, regardless of their socio-economic status. This insurance scheme will be phased in over a period of 14 years and is currently being piloted in 11 health districts, covering all nine provinces in the country (Matsoso & Fryatt, 2013).

Despite many initiatives by the National Department of Health (NDoH, 2011a) through the Minister of Health, provision of quality health care services is a serious challenge in South Africa, especially in the public rural clinics. Communities from rural areas face many challenges at the public healthcare clinics, such as poor infrastructure, attitude from staff, old equipment, not enough medicine, dirty

healthcare sectors, and long waiting times, which has led to provision of poor health care services (NDoH, 2011a). Patients are dissatisfied with the services they are receiving. Irrespective of working class, skin colour or language, provision of quality health care is of vital importance. It helps in restoring patients' satisfaction with the services rendered and tends to improve their health care status for the better (NDoH, 2011a). This influenced the researcher to determine the factors related to the provision of quality health care services at the selected public clinics in the rural areas of the Capricorn District, Limpopo Province.

6.3. Re-statement of the objectives of the study

- To identify the factors related to the provision of quality healthcare services at selected public clinics in the rural areas of the Capricorn District, Limpopo Province.
- To make recommendations for healthcare professionals with regard to factors related to the provision of quality healthcare services at selected public clinics in the rural areas of the Capricorn District, Limpopo Province.

6.3.1. Achievement of objectives of the study

To identify the factors related to the provision of quality healthcare services at selected public clinics in the rural areas of the Capricorn District, Limpopo Province, a quantitative research approach was used. A quantitative research approach was used in this study because it emphasises objectivity and uses systematic procedures to measure human behaviour (Burns & Grove, 2009). Formal structured instruments are used for collecting data from respondents (Burns & Grove, 2009). A cross-sectional study design was used to identify the factors related to the provision of quality health care services at the selected public clinics in the rural areas of the Capricorn District, Limpopo Province.

Data were collected using a structured self-administered questionnaire, over a period of three months. The questionnaire consisted of 34 questions that were divided into two sections namely:

Section A: Six questions related to demographic data.

Section B: Twenty-eight questions related to the factors related to the provision of healthcare services.

The questions were written in English.

The findings of the study indicated that only 3 (2%) of clinics operated for 24 hours, 72 (46%) operated for 8 hours and 80 (52%) operated for 12 hours. The majority of the professional nurses 129 (83%) said that the clinics are overwhelmed by large numbers of patients, whereas 26 (17%) of the professional nurses said that the

clinics are not overwhelmed by large numbers of patients; very few 29 (19%) professional nurses were satisfied with the salary they were paid, whereas the majority 124 (80%) were not satisfied with salary they were paid, and only 2 (1%) were not sure; most professional nurses 94 (61%) said that the clinic does not have enough medical equipment to render quality healthcare services, whereas 59 (38%) said that the clinic has enough medical equipment to render quality healthcare services, and only 2 (1%) were not sure. The findings of the study revealed the factors hindering the provision of quality health care services at the selected public clinics in the rural areas of the Capricorn District, Limpopo Province.

6.4. Recommendations

Recommendations were made to improve the quality of healthcare services in the public rural clinics. The following recommendations were made based on the findings of the study. The recommendations are categorised as follows:

6.4.1. Salary of professional nurses

Very few 29 (19%) professional nurses were satisfied with the salary they were paid, whereas the majority 124 (80%) were not satisfied with salary they were paid, and only 2 (1%) were not sure. According to SANC (2013b), nursing is a notoriously poorly paid profession. For example, a newly qualified pharmacist has a better salary, almost double that of a professional nurse who has to take responsibility for life and death decisions in the absence of other healthcare professionals (SANC, 2013b). A study conducted by Fochsen et al. (2005), revealed that low salaries contributed to most nurses' decisions to leave the profession, which lead to shortage

of staff, and thus compromises and hinders the provision of quality healthcare services to patients.

According to the President of DENOSA, Hlungwani (2016), in South Africa, nurses are paid less and cannot compete with the income of countries such as Saudi Arabia, United Kingdom and the United States.

The Occupation Specific Dispensation (OSD) was implemented in 2007 to improve the financial position of healthcare workers and greatly changed nurses' salaries. However, it appears to be weak and the policy did not achieve the intended goal of retaining and attracting healthcare professionals (SANC, 2013b).

In this context,

- In order to retain and recruit nurses, the Department of Health should introduce other fringe benefits such as car allowances and danger allowances for professional nurses working in the public rural clinics.

- The Department of Health should review the salaries they pay professional nurses in rural clinics, particularly the OSD, who should be given a higher salary. Furthermore, the government should increase the nurses' salaries to at least 10% higher than those in urban clinics within the next 5 years to attract more nurses to work in the public rural clinics.

6.4.2. Recruitment of professional nurses

The findings of this study revealed that the majority of the professional nurses 123 (83%) said that they were overwhelmed by large numbers of patients in the clinics. According to the National Strategic Plan (2012), there is a shortage of nurses in South Africa, with a declining production of new nurses in the past few years. Re-engineering of the PHC system to strengthen the District Health system has increased the demand for nurses, advanced midwifes and primary healthcare nurses. Professional nurses comprised of only 16% of new nurses registering and

are estimated to decline from 50% in 2009 to 37% by 2020 (National Strategic Plan, 2012). Professional nurses are older than other categories with 43.7% being over 50 years old and retiring at a rate of 3000 per year for the next 10-15 years. Furthermore, recruiting and retaining of professional nurses needs urgent attention, given the need to improve healthcare access with the introduction of National Health Insurance and the re-engineering of PHC.

In a study conducted in South Africa by Wilson, Couper, De Vries, Reid, Fish and Marsid (2009), it was reported that the process of recruiting healthcare professionals into the public rural health sectors should be carried out because recruiting healthcare professionals would assist in decreasing the shortage of staff in the public rural health sectors.

In this context:

- The Department of Health should recruit retired professional nurses to assist and to reduce the shortage of professional nurses, especially in the public rural clinics.

- The Department of Health should introduce an incentive package, this will attract professional nurses to work in the difficult public rural clinics. More professional nurses will assist with provision of quality healthcare services.

- The Department of Health should increase the intake of newly qualified professional nurses (community service nurses), in the public rural clinics to reduce shortage of professional nurses.

- The Department of Health should provide availability of efficient monitoring of the healthcare systems, drawing up of a supervision and an evaluation programme of healthcare services rendered in the public rural clinics by the Department of Health.

6.4.3. Allocation of funds to the clinics

Most professional nurses 102 (66%) said that the government does not allocate enough funds for the smooth running of the clinics, whereas 36 (23%) of the professional nurses said that the government allocates enough funds for the smooth running of the clinics, and 17 (11%) were not sure. In South Africa, according to the report by National Treasury (2007), provincial health budgets were estimated to have grown by 7.6%, in real terms, annually over the period of 2004/05 to 2010/11. Whereas, district health services, where most PHC services are located, are estimated to grow by 8.2% annually. Even though the government invests money in healthcare services at the primary level, the cost of health services keeps on rising and it becomes difficult for quality healthcare services to be rendered (National

Treasury, 2007). According to the recent budget review by the National Treasury (2017), health expenditure has grown in real terms by about 1.3% between 2012/13 and 2018/19. Public health budgets remain under pressure as a result of increased personnel costs, higher expenditure on the antiretroviral programme, and currency depreciation. Overall, health expenditure growth is mainly driven by expanded provision of antiretroviral treatment, which now reaches 3.5 million people (National Treasury, 2017). Furthermore, public health in South Africa consumes around 11% of the government's total budget, which is allocated and mostly spent by the nine provinces. How these resources are allocated and the standard of healthcare delivered varies from province to province (National Treasury, 2012). Despite this high expenditure, health outcomes remain poor when compared to similar middle-income countries. This can be largely attributed to the inequities between public and private sector (National Treasury, 2012).

In this context,

- The Limpopo Provincial Department of Health should liaise with the treasury department in providing realistic budgets that take into account the population.

- Government should ensure adequate allocation of funds to health; this will help with purchasing of necessary medical supplies in the public rural clinics.

- Policies regulating the use funds in the clinics should also be implemented to avoid theft of funds by those in authority, which makes it difficult to access medical equipment for the provision of quality healthcare services.

- The Department of Health should allocate adequate funds yearly and have realistic annual budgets for clinics, taking into consideration the population and number of clients using public healthcare services.

- Introduce posts that will assist in retaining professional nurses with a Masters or Doctorate of Philosophy qualification, to assists with evidenced-based research to evaluate the services that are rendered in the public rural clinics.

6.4.4. Infrastructure and equipment

According to the findings of this study, most professional nurses 94 (61%) said that the clinics do not have enough medical equipment to render quality healthcare services, whereas 59 (38%) said that the clinics do have enough medical equipment to render quality healthcare services, and only 2 (1%) were not sure. According to the minister of Health, Motsoaledi (2014), National Health Insurance was implemented to make quality healthcare services available to all South Africans, especially those in the public rural areas. However, the first priority was to strengthen the capacity of public healthcare infrastructure, to provide effective and safe

healthcare services. In 2012, the Ministers of Health and finance all over the world were called to talk about the problem of poor infrastructure, especially in the public rural areas. One of the reasons free health care fails is because nothing is being done about public healthcare infrastructure (Motsoaledi, 2014).

In this context,

- Ensure that there is enough and functioning medical equipment in the public rural clinics to provide quality healthcare services.

- The adoption of technology and willingness to invest and advance in modern technology in order to facilitate health services, will improve the quality of the healthcare services.

- Renovation of old public rural clinics to be able to provide safety and quality healthcare services to the patient.

- Provide adequate drugs and medical supplies all the time. Availability of medication will assist the patient to heal from various infections or accidents that have affected them.

- When purchasing equipment, staff should be involved and have their say about the equipment to be purchased, as they are the ones who will be using the equipment. Proper maintenance of equipment should always take place, and equipment should be serviced on time to avoid wrong readings and faulty use, as this may lead to injuries to staff on duty.

6.5. Limitations of the study

- The study was conducted in 25 clinics with a population of 155 professional nurses. Therefore, the findings of this study cannot be generalised to the clinics that did not participate in the study. Despite the limitations, the overall study does offer some valuable information regarding the factors related to the provision of quality healthcare services in the selected public clinics in the rural areas of the Capricorn District, Limpopo Province.

- The study was limited to public clinics in the rural areas only. Therefore, the responses of professional nurses working in urban clinics are not included in this study. Further studies can be carried out in the urban clinics in order to understand the factors related to the provision of quality healthcare services in these facilities.

6.6. Conclusion

In conclusion, the study indicates that the quality of healthcare services is affected in most of the public rural clinics due to a number of factors: overwhelming by patient numbers in the public rural clinics, absenteeism by professional nurses, poor salaries, poor infrastructure and not enough equipment. It is concluded that both financial incentives and non-financial incentives, such as improving working conditions,

availability of equipment, infrastructure needs, should be incorporated in order to improve the quality of healthcare services rendered in the public rural clinics.

In this study, recommendations were made to help improve the quality of healthcare services rendered in the public rural clinics.

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8. APPENDIXES

Appendix A: Questionnaire

The questionnaire should be filled by professional nurses

Please answer the following questions by crossing (X) on the relevant block

SECTION A- Demographic data

You are assured that your response will be kept confidential and your respond is highly appreciated.

1. Gender

Male	1
Female	2

2. Educational level

Diploma	1
Degree	2
Master's degree	3
Other	4

3. Work experience.

2 to 5 years	1
6 to 10 years	2
11 to 15 years	3
More than 15 years	4

4. Number of patients seen per day at the clinic

Less than 20	1
20 to 30	2
30 to 40	3
More than 40	4

SECTION B- Factors related to the provision of health care services

Please indicate the extent to which you say Yes, No and Not sure with each of the following statements by making your responses on a 3-point scale using the following key:

YES, NO AND NOT SURE

The impact of working conditions on healthcare service delivery

	1	**2**	**3**
	YES	**NO**	**NOT SURE**
5. Are you overwhelmed by large numbers of patients?			
6. Does absenteeism by other staff members affect the quality of healthcare services?			
7. Does the attitude of staff affect the quality of healthcare services at the clinic?			
8. Do the patients tolerate the stipulated time (2hours) before services are rendered to them?			

9. Do the numbers of patients you see daily affect the quality of services rendered to the patients?			
10. Is infection control maintained at the clinic?			
11. Does cleanliness of the clinic affect rendering quality of healthcare services			
12. Is the mission and vision of the clinics stated?			

Skills of the professional nurses in healthcare

	1	**2**	**3**
	YES	**NO**	**NOT SURE**
13. Have you attended in-service training in the past six months?			
14. Are the staff members trained to render quality healthcare services?			
15. Do professional nurses give health education to the patient on a daily basis?			
16. Do you believe staff members provide quality health care services to the patients?			
17. Do you have the required number of professional nurses to render quality healthcare services?			

Financial influence in healthcare sector

	1	2	3
	YES	**NO**	**NOT SURE**
18. Are the professional nurses involved in purchasing of the medical equipment?			
19. Are you satisfied with the salary that you are paid?			
20. Do the funds allocated to the clinic influence the quality of healthcare services rendered?			
21. Does the government allocate enough funds for the smooth running of clinics?			
22. Does the clinic use modern technology to render quality healthcare services?			
23. Does the use of modern technology improve the quality of healthcare services?			
24. Does the high cost of modern technology affect the quality of healthcare services rendered?			

Resources in healthcare

	1	2	3
	YES	**NO**	**NOT SURE**
25. Does the clinic have enough medical equipment to render quality of healthcare services?			
26. Is the equipment serviced on time?			

27. Do you have enough consulting rooms at the clinic?			
28. Do staff members sustain injuries due to faulty equipment?			
29. Is the infrastructure of the clinic suitable to render quality healthcare services?			

Staff evaluation

	1	**2**	**3**
	YES	**NO**	**NOT SURE**
30. Staff members are free to voice their concerns to supervisors?			
31. Are grievances dealt with fairly?			
32. Are you satisfied with the way performance evaluations are done?			

Appendix B: Letter Requesting Permission to Conduct Research

Matlala NT

P O Box 78

Senwabarwana

0790

Head of Department

Department of Health

Private Bag X9302

Polokwane

0700

Dear Sir/Madam

Request for permission to conduct a research study.

I Matlala Nick Tlou from the University of Limpopo, hereby request permission to conduct a research study. The title of the research study is the factors related to the provision of quality health care services at selected public clinics in the rural areas of Capricorn district, Limpopo province.

The aim of the study will be to determine factors related to the provision of quality health care services at selected public clinics in the rural areas of Capricorn district, Limpopo province. The study is the requirement for the degree I am doing. I hope my request will be taken into considerations.

Contact details: matlala.nick.tlou@gmail.com 0769284067

Yours faithfully

Matlala N.T

Appendix C: Consent form

UNIVERSITY OF LIMPOPO (Turf loop Campus) CONSENT FORM

Statement concerning participation in research project

Title of study: Factors related to the provision of quality health care services at selected public clinics in the rural areas of Capricorn district, Limpopo province.

I have read the information on the aims and objectives of the proposed study and I was provided the opportunity to ask questions and given adequate time to rethink the issue. The aim and objectives of the study are sufficiently clear to me. I have been not pressurized to participate in any way.

I am aware that this material may be used in scientific publications, which will be electronically available throughout the world. I consent to this provided that my name is not revealed. I understand that participation in this study is completely voluntary and that I may withdraw from it at any time without supplying reasons.

I know that this study has been approved by the Turfloop Research Ethics committee (TREC), University of Limpopo (Turf loop Campus). I am fully aware that the results of this study will be used for scientific purposes and may be published. I agree to this, provided my privacy is guaranteed.

I hereby give consent to participate in this study

…….. …….

Place. Date.

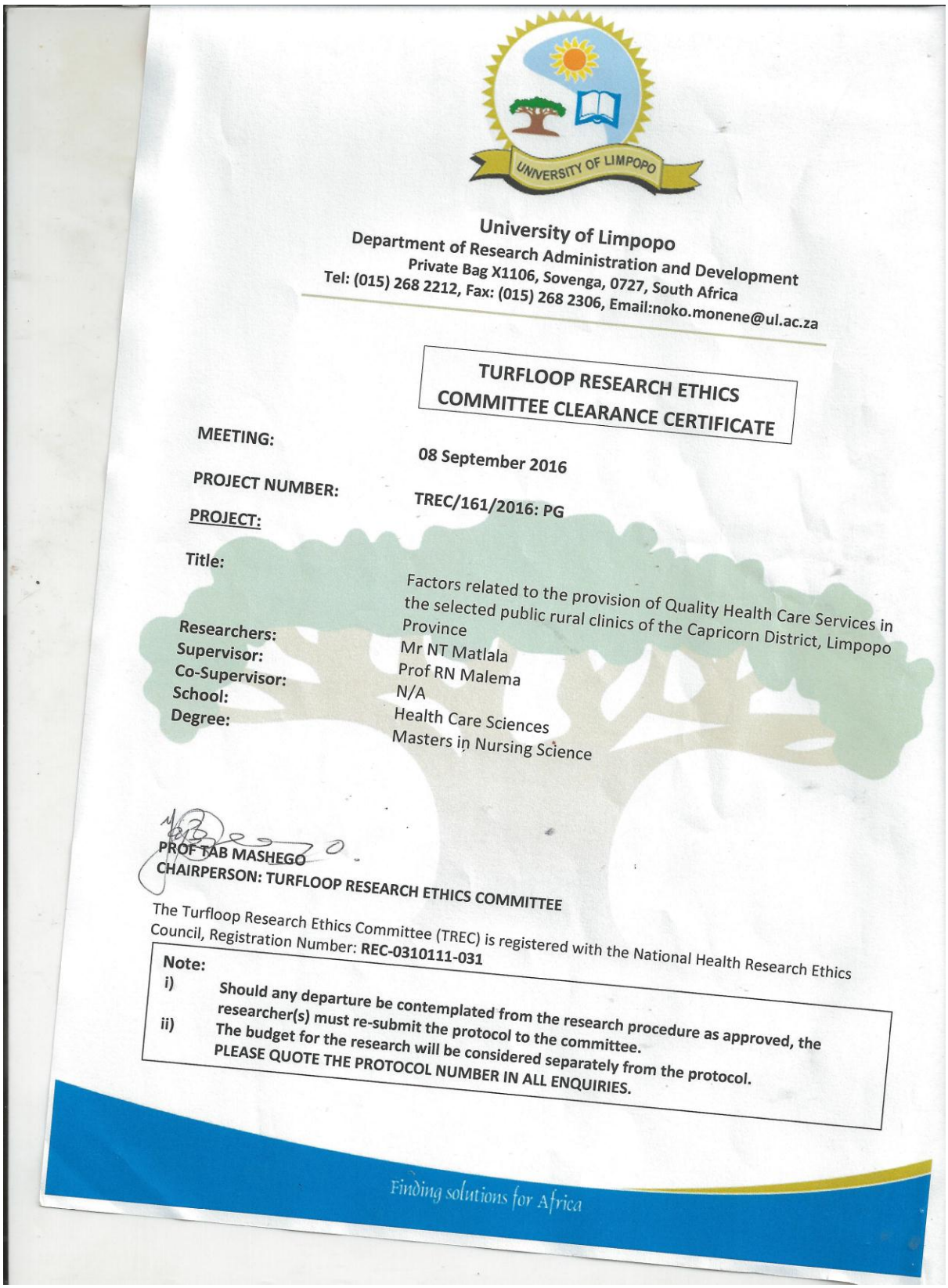
Statement by researcher

I provided verbal and or written information regarding this study

I agree to answer any future questions concerning the study as best as I am able

I will adhere to the approved protocol.

Appendix D: TREC approval letter



University of Limpopo
Department of Research Administration and Development
Private Bag X1106, Sovenga, 0727, South Africa
Tel: (015) 268 2212, Fax: (015) 268 2306, Email:noko.monene@ul.ac.za

TURFLOOP RESEARCH ETHICS COMMITTEE CLEARANCE CERTIFICATE

MEETING: 08 September 2016

PROJECT NUMBER: TREC/161/2016: PG

PROJECT:

Title: Factors related to the provision of Quality Health Care Services in the selected public rural clinics of the Capricorn District, Limpopo Province

Researchers: Mr NT Matlala
Supervisor: Prof RN Malema
Co-Supervisor: N/A
School: Health Care Sciences
Degree: Masters in Nursing Science

PROF TAB MASHEGO
CHAIRPERSON: TURFLOOP RESEARCH ETHICS COMMITTEE

The Turfloop Research Ethics Committee (TREC) is registered with the National Health Research Ethics Council, Registration Number: **REC-0310111-031**

Note:
i) **Should any departure be contemplated from the research procedure as approved, the researcher(s) must re-submit the protocol to the committee.**
ii) **The budget for the research will be considered separately from the protocol.**
PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES.

Finding solutions for Africa

Appendix E: Department of Health approval letter

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH

Enquiries: Latif Shamila (015 293 6650) Ref:4/2/2

Matlala NT
University of Limpopo
Private Bag X1106
Sovenga
0727

Greetings,

RE: Factors related to the provision of Quality Health Care Services in the selected public rural clinics of the Capricorn District, Limpopo Province

The above matter refers.

1. Permission to conduct the above mentioned study is hereby granted.
2. Kindly be informed that:-
    - Research must be loaded on the NHRD site (http://nhrd.hst.org.za) by the researcher.
    - Further arrangement should be made with the targeted institutions, after consultation with the District Executive Manager.
    - In the course of your study there should be no action that disrupts the services.
    - After completion of the study, it is mandatory that the findings should be submitted to the Department to serve as a resource.
    - The researcher should be prepared to assist in the interpretation and implementation of the study recommendation where possible.
    - The above approval is valid for a 3 year period.
    - If the proposal has been amended, a new approval should be sought from the Department of Health.
    - Kindly note, that the Department can withdraw the approval at any time.

Your cooperation will be highly appreciated.

Head of Department

06/10/2016
Date

18 College Street, Polokwane, 0700, Private Bag x9302, POLOLKWANE, 0700
Tel: (015) 293 6000, Fax: (015) 293 6211/20 Website: http/www.limpopo.gov.za

APPENDIX F: EDITING CERTIFICATE

PROFESSIONAL EDITING SERVICES

EDITING CERTIFICATE

Master's Degree in Nursing Science

NICK TLOU MATLALA

THIS IS TO CERTIFY THAT

Prof Kathrine Elizabeth Scholtz has edited the MSc thesis titled:

"FACTORS RELATED TO THE PROVISION OF QUALITY HEALTH CARE SERVICES AT SELECTED PUBLIC CLINICS IN THE RURAL AREAS OF THE CAPRICORN DISTRICT, LIMPOPO PROVINCE"

Prof KE Scholtz