EXPERIENCES OF PROFESSIONAL NURSES ON THE SHORTAGE OF RESOURCES IN A TERTIARY HOSPITAL IN TSHWANE DISTRICT

by

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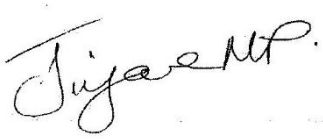
DECLARATION

I declare that **EXPERIENCES OF PROFESSIONAL NURSES ON THE SHORTAGE OF RESOURCES IN A TERTIARY HOSPITAL IN TSHWANE DISTRICT** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I further declare that I submitted the dissertation to originality checking software and that it falls within the accepted requirements for originality.

I further declare that I have not previously submitted this work, or part of it, for examination at Unisa for another qualification or at any other education institution.



10 November 2020

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SIGNATURE **DATE**

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ABSTRACT

South Africa is experiencing shortage of resources in most health services, including tertiary hospitals. This leads to a situation where health care workers, especially professional nurses (PNs) leave to private nursing or go abroad for better work conditions. The aim of this study was to explore and describe experiences of PNs on the shortage of resources at a tertiary hospital in Tshwane District. The study followed a qualitative, explorative, descriptive design based on phenomenological interpretive approach. Purposive sample of 16 participants were recruited. Unstructured interviews with a grand tour question was used to conduct face-to-face individual interviews. Interviews were recorded and transcribed verbatim. TheTesch's method of analysis was utilised. Target group was PNs aged between 25 and 65 years who have worked for two or more years in selected units. Experiences of PNs on shortage of resources was reported as the major findings of this study.

KEY CONCEPTS

Experiences; human resources; non-human resources; professional nurse; shortage; tertiary hospital.

ACKNOWLEDGEMENTS

Inkosi ingefikisile ekugcineni − God brought me to the end. Thank you, Lord.

I am truely gratefull and appreciative for the support I received from the following people who contributed positively towards my study:

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- My late sister Regina, for giving me spiritual support when needed.
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- My colleagues who assisted, encouraged and supported me.

Dedication

I bestow this study to my late brother Ben Sibanyoni and my two late sisters Johanna Sithole and Reginah Matshika – may their souls rest in peace.

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LIST OF ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
BCG	Bacillus Calmette-Guerin
CCS	Compulsory Community Service
CCU	Critical Care Unit
CEO	Chief Executive Officer
COVID-19	Coronavirus Disease of 2019
CSN	Community Service Nurse
CSSD	Central Sterilisation Department
CVA	Cerebral Vascular Accident
DRC	Democratic Republic of Congo
Dr	Doctor
EmOC	Emergency Obstetric Care
HCW	Health Care Worker
HIV	Human Immunodeficiency Virus
HRH	Human Resource for Health
ICU	Intensive Care Unit
ILO	International Labour Organization
IUFD	Intra Uterine Foetal Death
NDoH	National Department of Health
NHI	National Health Insurance
OHS	Occupational Health and Safety
OHSC	Office of Health Standard Compliance
OSD	Occupational Specific Dispensation
OPM	Operational Manager
PN	Professional Nurse
PNs	Professional Nurses
PHC	Primary Health Care
PPE	Personal Protective Equipment
PPH	Post-Partum Haemorrhage
RNs	Registered Nurses
SMU	Sefako Makgatho University
SA	South Africa
SANC	South African Nursing Council
SDG	Sustainable Development Goal
SSA	Sub-Saharan Africa
TAC	Treatment Action Campaign
UHC	Universal Health Coverage
UNISA	University of South Africa
USA	United States of America
WHO	World Health Organization

CHAPTER 1

ORIENTATION TO THE STUDY

1.1 INTRODUCTION

Shortage of resources is a global challenge as reported in one of the hospitals in Spain that doctors have to sometimes cancel or postpone patients' operations due to the shortage or malfunctioning of equipment (Hibbert 2015:3). In other instances, it is reported that doctors are required to bring their own instruments for performing operations. Murthy (2014:3) reveals that challenges affecting government hospitals include insufficient infrastructure, demanding workload and shortage of resources. Omondi (2016:16) highlights that most of the deaths in Kenya are due to inadequate drugs and medical supplies. According to Moyimane, Matlala and Kekana (2017:3), the cause of a shortage in non-human resources in South Africa (SA), is due to the non-existence of appliances, followed by low quality and bad maintenance of the few that are available. The South African National Department of Health (NDoH) has introduced the National Core Standard as a strategy to improve the shortage of resources at all levels of hospitals based in seven domains (South Africa 2011a:6). Domain seven stipulates that equipment is supposed to be maintained and serviced according to the manufacturer's requirements. The equipment ought to be safe, available and used when needed (South Africa 2011a:43).

A study conducted in China by Yang, Lv, Zhou, Liu and Mi (2017:34) revealed that shortage of human resource, especially nurses is due to high staff turnover amongst nurses between 30-39 years old. According to the study, stress and inability to cope with the workload, are factors associated with staff turnover. The report publicised that 977 hospitals had 97 221 registered nurses (RNs) catering for a population of 37 million (Yang et al 2017:23). In addition, a study conducted in Ghana emergency department indicates that quality of patient care is compromised due to shortage of resources (Atakro, Ninnoni, Adatara, Gross & Agbavor 2016:7). According to Khunou and Davhana-Maselesele (2016:2), a total number of 23 407 of the country's health care professionals emigrated overseas due to poor salary and poor working conditions. Manyisa and Van Aswegen (2017:35) specify that insufficient nursing personnel and inadequate resources are

factors that affect working conditions in most state hospitals. Tshitangano (2013:27), expresses that PNs working in one of the state hospitals in Limpopo raised salary related issue as the contributary factor for job dissatisfaction.

1.2 BACKGROUND INFORMATION ABOUT THE RESEARCH PROBLEM

1.2.1 Source of the research problem

The background information gives insight to what the study will focus on (Hofstee 2015:84). This study focuses on the experiences of PNs regarding shortage of resources in a tertiary hospital in Tshwane District. Resources include human and non-human resources that are needed to deliver good nursing care. According to Mammbona and Mavhandu-Mudzusi (2019:144), lack of resources leads to compromised patient care and affects the physical health of PNs. In support, Lyengar, Hedman, Forte and Hill (2016:4) determined that shortage of essential medicine, including the Bacillus Calmette-Guerin (BCG) vaccine is a global problem. The report indicates that this vaccine has been out of stock in different markets from 2012, because of manufacturing issues and a weak supply network (Lyengar et al 2016:7). Literature reveals that shortage of medicine and other medical supplies leads to a decline in nursing standard and wellbeing of patients in hospitals (Jimenez 2016:8).

Scarcity of medical professionals in Sub-Saharan Africa (SSA) and SA stems from international migration, career changes and staff turnover due to unfavourable working conditions (Tshitangano 2013:42; South Africa 2017a:31). A study conducted in SA by Longmore and Ronnie (2014:369), indicates that a shortage of doctors, pharmacists and other health care workers affects nurses emotionally and leaves them frustrated. In addition, Ditlopo, Blaauw, Rispel, Thomas and Bidwell (2013:141) highlight that there are gaps regarding implementation of the Occupational Specific Dispensation (OSD) in different provinces specifically the North West and Free State Provinces. This leads to a situation where nurses move to areas where OSD is implemented better, thus leaving other areas short-staffed. Coovadia, Jewkes, Barron, Sanders and McIntyre (2009:815) state that the closure of most nursing educational institutions in 1994 resulted in a shortage of nurses. In this regard, fewer nurses are trained compared to prior 1994. Nkomazana (2017:12) mentions that medical schools in SSA, struggle to enrol an adequate number of students because of infrastructural and academic staff shortages. This further exacerbate shortage of human resources. According to Rispel, Blaauw,

Chirwa and De Wet (2014:36), working overtime through nursing agencies has also aggravated the shortage of human resources, reason being financial matters and non-financial matters. The researcher has been concerned about the severe shortage of human and non-human resources in tertiary hospital where students are placed. This created the motivation for the study.

1.3 RESEARCH PROBLEM

Grove, Gray and Burns (2015:131) describe a research problem as an area of concern where there is a gap in the knowledge needed for nursing practice. Shortage of human and non-human resources is a serious challenge to PNs working in the tertiary hospital under discussion as it seems to affect the rendering of quality nursing care. During clinical accompaniment of students at the hospital, the researcher observed shortage of blankets in the units. In addition, patients were using their own blankets from home which poses a risk for nosocomial infection. Compromised patient care was observed in the clinical areas where students are placed. Patients were complaining of not getting medication on time. In one of the units, PNs complained about theatre cases that are postponed due to insufficient equipment. There is overcrowding of patients in the units with limited number of nurses. This shortage seems to influence the execution of nursing care. Furthermore, Raju (2017:3) indicates that cost-cutting efforts create difficult working conditions for nurses, which directly or indirectly affects service delivery. Several studies have been conducted on the shortage of resources. However, limited research is available regarding the experiences of PNs with regard to the shortage of human and non-human resource in tertiary hospitals. Most of the studies conducted focused either on human or non-human resources. The central theoretical statement of this study is “What are the experiences of PNs on the shortage of resources in a tertiary hospital in the Tshwane District?”.

1.4 RESEARCH PURPOSE

According to Creswell (2014:123), a research purpose is an account that launches the intent of the whole study. This study sought to explore and describe experiences of PNs regarding the shortage of resources in a tertiary hospital in Tshwane District and how they cope in the delivery of patient care.

1.4.1 Research questions

Moule and Goodman (2014:79) describe a research question as issues that the researchers intend to acquire relating to the topic. The study questions were:

- What are experiences of PNs regarding shortage of resources in a tertiary hospital in Tshwane District?
- What coping mechanisms do PNs apply to address the challenges of shortage of resources?

1.5 DEFINITIONS OF CONCEPTS

1.5.1 Experiences

Experience is defined as the knowledge that comes from personally being involved in an event, situation or circumstances. In nursing, personal experience enables one to gain skills and provide care to patients and community members (Grove, Burns & Gray 2013:10).

In this study, experiences of PNs working with lack of resources was higlighted by participants. Some were often absent, frequently sick or just work at a reduced pace in the units as they feel overwhelmed by the needs and demands of both patients and management.

1.5.2 Professional nurse

As stated in section 30 (1) of the nursing Act no 33 of 2005, professional nurse is a person who is qualified and competent to independently practice comprehensive nursing care according to the prescribed level and accountability.
The PN has the ability to function self-sufficiently and collaborate effectively with other health care professionals (South Africa 2005:25).

1.5.3 Resources

Resource is the supply that is needed to sustain a project such as equipment, computers or telecommunication for an organisation (Brink, Van der Walt & Van Rensburg 2018:54).

In this study, resources are both human and non-human resources used to monitor, diagnose and treat people who are sick, such as blood pressure machines being used for diagnosis purposes.

1.5.3.1 Human resources

According to Shantz Alfes and Arevshatian (2015:277), human resources are defined as formal and informal people in the administrative process who are executed to make sure that the company's human capital contributes to the attainment of its objectives.

In this study, human resource refers to people working in the tertiary hospital in the Tshwane District which include PNs, doctors, pharmacists, administrative personnel, technologists and all different categories of people working in the health sector.

1.5.3.2 Non-human resources

Mammbona and Mavhandu-Mudzusi (2019:143) describe non-human resources as furniture, cleaning materials, pharmaceutical supplies and personal protective equipment (PPE) such as masks, gloves, aprons and disposable gowns.

In this study, shortage of non-human resources refers to equipment infrastructure big enough to accommodate all types of patients admitted as well as medical appliances and well-functioning equipment to enhance performance of patient care in the selected tertiary hospital of study. These resources accounts for a high cost in the health sector and plays an important role in quality patient care.

1.5.4 Shortage

Moyimane et al (2017:2) describe shortage as a setting where assets needed to support human life in different areas are consumed and the option method of obtaining them has been exhausted.

In this study, shortage means lack of enough human or non-human resources to render quality care. The reason for the shortage differs according to literature review. Most literature mentions financial and management problems as the causes of shortage.

1.5.5 Tertiary hospital

A tertiary hospital is an institution that provides highly specialised care by health professionals and it involves advanced and complex procedures performed by medical specialist doctors, nurses, pharmacists, medical scientists and others (Doney, Laaser & Kovacic 2013:9). This type of institution is affiliated to the university. The hospital selected is a referral hospital linked to a university where there are medical specialists. More details will be discussed under settings in Chapter 3.

1.6 FOUNDATION OF THE STUDY

A phenomenological research design was used as a philosophical base to explore and describe experiences of PNs regarding shortage of resources in a tertiary hospital According to Kelly, Millar and Dowling (2016:6), phenomenology is a science that plans to illustrate real lived experiences of people. The research design is discussed in detail in Chapter 3.

1.6.1 Paradigm perspective of the study

A paradigm is defined as the analyst's belief in the principles of the world they live in and how they explain functions inside that world (Kivunja & Kuyini 2017:26). The investigator chose a constructivist paradigm postulation as it is more appropriate to this study. The qualitative model account for the abstract, trust and principles that structure how scientists perceive the world, and how one translates and react in that world. It allows participants to freely express themselves on their experiences concerning the study phenomena and

the meaning attached (Kivunja & Kuyini 2017:26). Constructivist paradigm or naturalistic paradigm involves in actual life experiences of participants who engaged in a meaningful conversation with the analyst to provide qualitative information in the study (Polit & Beck 2017:9). In addition, members become actively engaged in all phases of the procedure (De Vos, Strydom, Fouche' and Delport 2017:7). It assists the analyst to focus on understanding the lived experiences of PNs working with shortage of resources, to collect qualitative material resources that serves as narrative for the study (Polit & Beck 2017:9).

Qualitative research allows participants' subjective views to be expressed, captured on an audio recorder and reflected on by the inquirer. It focuses on emic participants' perspective, using local language and common concepts to characterise and describe their experiences meaningfully (Kelly et al 2016:5). Researchers seek to understand the context or setting of participants by visiting them and collecting data on their own. According to Brink et al (2018:124) non -probability purposive sampling is chosen to recruit participants with rich knowledge about the phenomenon that can explain their coping skills on shortage of resources. The target group for this study was all PNs who volunteered to participate in the age group 25-65 years and who have more than two years' experience.

1.6.2 Research setting

A research setting refers to the specific site or location used to conduct the study (Grove et al 2015:276). The study took place in a specific tertiary hospital situated at the Tshwane District, Gauteng Province, South Africa. Chapter 3 provides a full explanation of the setting.

1.7 RESEARCH DESIGN AND METHODS

According to Babbie (2012:30), a research design is an outline that direct collection of data, measurement and analysis. Qualitative, explorative, descriptive research design based on a phenomenological interpretive approach was used in this study.

Phenomenological design has its roots in both philosophy and psychological views which rely on in-depth interviews with individuals who have experienced the phenomenon of interest (Kelly et al 2016:4). Hermeneutics is a qualitative approach that concentrate on

lived experiences of people and how they explain their incidences (Polit & Beck 2017:730). This approach was selected to explore the life experiences of PNs in the workplace and what it means to them (Kelly et al 2016:5). In Chapter 3, the research methods and the comprehensive description of the design are discussed.

1.8 MEASURES TO ENSURE TRUSTWORTHINESS

Trustworthiness is a process of securing thoroughness, specifically grounded on the classic model of Lincoln and Guba (1985:290). The model proposes the following norms: credibility, dependability, confirmability and transferability. Polit and Beck (2017:747) define trustworthiness as the degree of confidence and authenticity that qualitative researchers have in their findings. These principles are deliberated in Chapter 3.

1.9 ETHICAL CONSIDERATIONS

Grove et al (2015:100) define ethics as human rights that include self-determination, privacy, anonymity and confidentiality, fair selection and treatment, protection from any harm or discomfort. In this study, participants were informed about the nature and study purpose, the procedure to be followed and informed consent was obtained. According to Babbie (2012:32), ethics is concerned with the matters of right and wrong. An ethical consideration in this study refers to the protection of the rights of the institution, participants and ensuring scientific integrity. Ethical considerations are further elaborated on in Chapter 3.

1.10 SIGNIFICANCE OF THE STUDY

It is envisaged that the findings of this study when published will serve as a reference material for advanced research as phenomenon is global and needs ongoing investigations for solutions (Burns & Grove 2011:410). Recommendations may be used as strategic framework for providing coping mechanism and support system to the nurses. The study would make a useful contribution to the NDoH on how to deal with challenges of resources shortage. In addition, the information will draw attention to specific aspects that contribute to the shortage of resources. The knowledge could contribute to in-service education by guiding PNs to develop coping strategies when working with limited resources.

1.11 SCOPE OF THE STUDY

This study covers PNs from the age group between 25-65 years working in a Tshwane District hospital in the following units: accident and emergency, intensive care, medical, maternity, surgical and paediatric, who were experiencing shortage of resources. Focus was only on PNs who have more than two years experience and who volunteered to partake in the study. This offered a limited view of the target population.

1.12 STRUCTURE OF THE DISSERTATION

Chapter 1: **Orientation to the study:** offers study positioning in relation to background, problem statement, aim and objectives. Crucial concepts, brief picture of methods and design, ethical traits and methods to safeguard trustworthiness are described.

Chapter 2: Literature review: evaluates, organises and synthesises literature as guided by key words provided. Literature source are applied to describe findings.

Chapter 3: Research design and methodology: provides full details of the study design and methods.

Chapter 4: Data management, analysis and interpretation: provides an analysis of data, themes, categories plus subcategories that have emerged.

Chapter 5: Conclusion and recommendations: affords discussion of the findings in relation to available literature. Study limitations and recommendations are offered.

1.13 SUMMARY

In this chapter provided a background pertaining to the problem statement, meaning of concepts, methods and designs, ethical contemplations, and procedures to guarantee trustworthiness. Subsequent chapter deliberates literature relevant to the study.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

Literature review on the shortage of human and non-human resources in a tertiary hospital in Tshwane District Gauteng Province of South Africa is debated in this chapter. Scarcity of resources is experienced globally, internationally, Sub-Sahara Africa including South Africa as indicated by (WHO 2013; Raju 2017:9; James & Miza 2015:5). Literature determines regularity and irregularity about a subject, concept or a problem (LoBiondo-Wood & Haber 2014:51; Taylor 2014:305). The aim is to identify cracks between existing and prior studies in order to reduce unintended duplication (Creswell & Creswell 2018:61). Data consulted include books, Sabinet, Google Scholar, EBSCOHost, nursing and media reports that discussed shortage of resources. Even though the study dealt with experiences of people, it was imperative to review literature, clarify and expand the researcher's understanding about the phenomena (Mazibuko 2017:33).

2.2 HEALTH CARE RESOURCES

According to Doney et al (2013:4), health resources are measures of health maintenance available for its function, which covers human resource, infrastructure, equipment, medical supplies, finance, transport services, skills and technology. Shortage of human resource, especially doctors and nurses, is an obstacle for the provision of caring for the sick (Baboo, Van Rooyen, Ricks & Jordan 2016:403). In addition, lack of health resources affects service delivery negatively and prolongs hospital stay. Vasuthevan and Mthembu (2016: 6) indicate that enough health services must be available and accessible to the community. Human resources for health strategy states that health professionals are distributed differently amongst provinces, especially between rural and urban areas (South Africa 2017a:13). This unequal distribution aggravates shortage. In support, Muller (2009:302) indicates that human resource management is needed for planning, provisioning, utilisation, retention and development of personnel. Moyimane et al (2017:18) indicate that shortage of non-human resource may be due to the unavailability of medical equipment. However, Munedzimwe (2017:43) and Lyengar et al (2016:7) state that shortage of medication may be due to inadequate pharmacy personnel and poor

medicine stock management. In agrrement, James and Miza (2015:6) highlight that lack of health resources, makes it hard to reach Batho Pele principles. Shortage of resources motivated the investigator to realise the importance of exploring this phenomenon to provide guidance that may assist in addressing the problem.

2.2.1 South African health care context

Prior to 1994, during the apartheid era, SA was governed by unfair racial practices (Baker 2010:79). According to De Beer, Brysiewicz and Bhengu (2011:5), health care delivery was provided at four levels which were national, provincial, district and community level. Services were separated according to district borderlines. Furthermore, black people lived in homelands and were serviced by an underfunded Department of Health, which led to a decline in service delivery (Chassin & Loeb 2013:462). Training institutions such as nursing colleges and universities were separated in whites and blacks while resources were unequally distributed. Health care service resources were limited and inaccessible for blacks in the homelands (Delobelle 2013:176). The outcome of racial discrimination was that, on one hand black patients were supplied with inferior quality care, limited equipment, overcrowding and understaffed public health care personnel while on the other hand, white patients received superior services (Van Rensburg 2014:18).

Lack of resources in the former black hospitals was a recurrent cycle before 1994. Post 1994 democratic elections, the health system was broken into public and private sectors (De Beer et al 2011:7). The public health sector is organised by the government, whereas private sector is a business entity maintained by a group of people (South Africa 2013a:16; Baker 2017:26). After 1994, the SA government had to come up with initiatives of changing the previous broken health system (Kredo, Abrams, Young, Louw, Volmink & Daniels 2017:2). This included combining the public health sector at governmental level and moving from a racially based to a combined system (Erasmus, Poluta & Weeks 2012:22).

The introduction of Primary Health Care (PHC) re-engineering approach was to reduce shortage of resources such as health facilities and overcrowding in different levels of care (Kredo et al 2017:3) Hence the then minister of health, announced that health care delivery be reconstructed into a district health system, following re-engineering PHC approach (SA 2017a:17). Evidence of shortage is seen through the media reported as

medico-legal issues and litigations affecting public health care sectors (Rispel, Blaauw, Ditlopo & White 2018:28; Booyens & Bezuidenhout 2016:11).

According to Jooste (2018:373), health care system in democratic SA has a combination of large civic and durable secluded health sectors. The World Health Organization (WHO) (2015) and South Africa (1996) states that it is responsibility of a well organised health care structure to provide excellence services to its citizen. Walshe and Smith (2011:155) and (Young 2016:3) describe the three levels of care as follows: Primary level is the first line of services offered at local clinics. Secondary level of care is provided at hospitals and referrals from the PHC practitioners are treated here. Tertiary health care level comprises of highly specialised care and is provided at regional level. The bed occupancy rate of tertiary hospitals ranges from 300 to 1,500 depending on the area where it is situated (Young 2016:4).

2.2.2.1 Public health sector

The government aims to encourage good health, alleviate illness, limit complications and make sure that every member of the community can access health care freely (South Africa 2011b:11). However, there are challenges experienced by the public health sector which are: lack of resources, staff shortage, negative reports from the media and lack of environmental safety (James & Miza 2015:5). All these factors affect health care delivery. Statistics South Africa (2017) indicates that 81% of the population are utilising governmental care institutions and 19% are utilising non-governmental care institutions. South Africa is experiencing insufficient skilled health professionals in the state hospitals, which is not the case in the private sector (Heywood 2014:8). This imbalance contributes to shortage of resources in tertiary hospitals because of a high number of patients. The hospital under study is surrounded by PHC clinics and receive referrals from other provinces, which necessitate adequate resources.

Mayosi and Benatar (2014:1344) and De Beer et al (2011:9), highlight that persistent influx of refugees, perpetuates a high demand of state health resources, which further overburden a system that is already struggling to cater for its own society. According to Veareyi, Modisenyane and Hunter-Adams (2017:92), lack of security and strict measures to control influx at SA borders, allows migration from neighbouring countries to enter the public health sector to access free health services. This factor further aggravates the

shortage of resources. In addition, Ndou (2017:6) states that SA public hospitals are occupied by patients suffering from infectious diseases such as Tuberculosis (TB) and HIV/AIDS. Deficiency of gloves, covers and overalls are problems affecting the health system. During the Presidential Health Summit, Deputy President of SA, acknowledged that the health system is experiencing a crisis (South Africa 2018:17).

2.2.2.2 Private health sector

Young (2016:4) indicates that an increase of the private health care sector was a market response to the government because of failing to provide health care services and declining standards in the state health sector. Mahlathi and Dlamini (2015:3) state that people who have medical insurance prefer to utilise the private health sector for better service. The availability of highly skilled health care providers in private sector makes quality care accessible, thus reducing waiting time (Rispel et al 2018:15; Young 2016:9). Private sector assists the government to fulfil its constitutional mandate of providing quality health care service to the SA people (Econex 2013:7). Furthermore, Delobelle (2013:161) highlights that non-governmental hospitals render services to less than 15% of the population but utilise 55-60% of the allocated funds. Erasmus, Ranchod, Abraham, Carvounes and Dreyer (2016:11) argue that in the private sector access is only provided to people who can afford to pay, facilities are few, it caters for a small number of people and patients pay for all the services (Young 2016:9). According to Econex (2013:6), private health care sector provides PHC service to an estimation of 28% to 38% of the population. In contrast, the government health care sector caters for a higher percentage of the population. In order to address concerns of parity and value care, policy of National Health Insurance (NHI) was introduced (Erasmus et al 2016:13). The WHO (2018:10) emphasised the importance of recognising the presence of both governmental and non-governmental sectors in the country.

2.2.2.3 National health insurance

The objective of the NHI is to strengthen and transform a fragmented health system and improve resources (South Africa 2017b: 4; Fusheini & Eyles 2016:8). The assertion is that NHI is a substantive policy shift that will attend to fundamental alterations that will take place in the state and non-state institutions (South Africa 2017b:3). It is reported that NHI would be implemented in three phases for a period of 14 years. The first phase of

implementation took place during a five-year period and commenced in 2012 and was supposed to end between 2016 and 2017 (South Africa 2017b:3). Strategies such as the National Core Standards were developed to improve the status of health care delivery (South Africa 2011a:10). The first three domains are for patient safety, followed by patients' rights, clinical governance and support for rendering health care services. Domain number five describes how health institutions must work with other stakeholders to provide care (South Africa 2011a:11). Furthermore, Office of Health Standards Compliance (OHSC) is monitors standard of health care delivery at all levels of government hospitals (South Africa 2013b:43).

2.3 OVERVIEW OF SHORTAGE OF RESOURCES

2.3.1 Global shortage of resources

The WHO (2013) reports that there will be a shortage of 12,9 million health professionals in 2035, which could have a serious impact on billions of people. Miseda, Were, Marianka and Mutwiwa (2017:3) stipulates that scarcity of resources negatively influence realisation of Millennium Development Goals. According to Miseda et al (2017:3), if this shortage is not corrected, it may affect the success of the health-related Sustainable Development Goal (SDG).

According to the WHO (2013), shortage of resources in SSA, makes deployment of nurses and doctors to undeveloped areas challenging. The WHO (2017) supports this statement by indicating that experienced nurses, doctors, pharmacists and other health care workers are expected per 10 000 people. However, 83 countries are still below this level. Shortage of medical resource in the form of equipment, medication and PPE is a global problem as seen currently during the coronavirus (Covid-19) pandemic (WHO 2020:8). In support, WHO (2013) revealed that medical equipments are not maintained, and therefore non-efficient. These shortages can have adverse bearing on patient outcomes (Maseko & Harris 2018:31). Such negative impact may be in the form of delay in the healing process, prolonged patient stays in the hospital and increased workload on health care workers (Maseko & Harris 2018:31). Shortage of health resources is also experienced internationally.

2.3.2 International shortage of resources

According to Raju (2017:9), shortage of human resources internationally, is attributed to various factors such as sick leave, permanent resignations and patient overflow. Mehdaova (2017:17) reveals that the State of California invested very little in nursing schools. As a result, only 43% of school nurses were hired, which also contributed to a shortage of RNs. Factors that attribute to high staff turnover according to Yang et al (2017:14), were high job demands, lack of support from superiors or peers, job dissatisfaction and increased workload. Additionally, a study conducted in Saudi Arabia highlights that family conflict was one of the causes of staff turnover which contributed to a shortage of human resources (Alshutwi 2016:28). In this regard, most parents experienced family accountability for taking care of children, hence the huge turnover. Muller (2009:302) emphasise that it is imperative to maintain and manage human resources effectively and efficiently. Shortage of non-human resources such as drugs is also experienced internationally (Menees, Vargo, Bonta, Mayo & Jacobson (2013:641). Sometimes doctors find it difficult to perform surgical operations due to the lack of sedatives to be used for anaesthetic purpose.

2.3.3 Lack of resources in Sub-Saharan Africa (SSA)

According to Haseeb (2018:6), emigration of SSA health workers to well-paying countries in North America and Europe has affected the medical workforce in several areas. Nkomazana (2017:8), also found that shortage of health personnel in Botswana PHC was due to migration. Arias, Nove, Schuldt and Bernis (2017:8), state that most of the SSA region faces high population growth, a weak health system and shortage of resources. Washeya (2018:39) indicates that in Namibia, most of PNs moved to non-governmental hospitals due to staff shortage in the government sector.

Emmanuel (2016:7) reports that Tanzania is among the seven countries that were responsible for 3-5% of worldwide maternal deaths in 2010 due to a shortage of resources. Additionally, Atakro et al (2016:10) indicates that RNs working in one of Ghana's emergency departments did not have qualifications nor experience in emergency nursing. Thus, they experience operational inefficiency, unnecessary deaths due to failure to resuscitate patients and poor coping skills with the workload (Atakro et al 2016:12). Khalifa (2012:13) reports that about a third of the community could not reach

health care institutions in Sudan due to lack of PHC services. Overcrowding is experienced in available PHC facilities, especially in Darfur. Transport problem affected the accessibility of antiretroviral treatment in Mozambique (Schwitters, Lederer, Zilversmit, Gudo, Ramiro, Cumba, Mahagaja & Jobarteh 2015:4). A study from Democratic Republic of Congo (DRC), reveals that patients were expected to buy their own medicine or medical equipment on admission due to a decline in health services (Emmanuel 2016:7). Shortage of professional health workers affects every facet of the state sector in SSA resulting in a high child mortality rate (Haseeb 2018:7).

2.4 FACTORS CONTRIBUTING TO SHORTAGE OF NON-HUMAN RESOURCES

Several factors are attributed to the lack of material resources in health care institutions. According to Moyimane et al (2017:1), non-human resources refer to valuable assets of the health industry. Furthermore, Lyengar et al (2016:16) indicate that lack of monitoring, unreliability or unavailability of the supply chain have been persistent for decades as causes for shortage of medicine. Schwitters et al (2015:26) reveal that it was difficult to implement mobile health clinics in Mozambique due to shortage of human resource and finance. Cascio (2010:332) indicates that lack of maintenance and servicing of equipment result in shortage of resources. Bvumbwe and Mtshali (2018:39) alluded that inadequate infrastructure poses a big challenge in nursing education in SSA countries. A poor working environment and the shortage of equipment were identified as push factors for health care workers to other countries (Reardon & George 2014:9).

2.5 FACTORS CONTRIBUTING TO SHORTAGE OF HUMAN RESOURCES

Several factors are attributed to the scarcity of personnel in health care organisations worldwide. According to Van Rensburg (2014:3), the cause of human resource shortage in SSA is related to health personnel converging in urban areas, which leaves undeveloped places underserviced. Chirwa, Chandiwana, Pepukai, Mashange, Buzuzi, Munyati, Martineau and Alonso-Garbayo (2016:40) reveal that in Zimbabwe, health workers voluntarily leave their jobs in the government sector due to poor salaries and poor working conditions. Such action puts their living standards in a continual decline. Health care workers, besides being employees, still have a social role to perform in their families, hence the need for an acceptable salary. Luhalima, Mulaudzi and Phetlhu (2014:478) state that, financial incentives such as merits, salary and once-off bonuses

after achievement of additional qualifications and non-financial incentives serve as good motivational practices for employees. Mqokozo (2013:52) points out that newly licenced PNs in SA, who require mentoring and guidance, are left unsupervised in the wards. This exposes them to the risk of adverse events, frustration, demotivation and lastly, resignation that increases human resources shortage. The WHO (2018:13) acknowledges that factors which contribute to shortage of human resources in the state institutions in SA include poor governance framework, insufficient management and poor supervisory abilities. Longmore and Ronnie (2014:369) highlight non-replacement of staff who have retired, deceased or resigned as contributory factors on shortage of human resources. Consequently, adequate management is needed in the working environment for the supervision and support of staff. Muya (2018:20) alludes that a well-managed health work force, may result in better health care delivery.

2.6 IMPACT OF SHORTAGE OF RESOURCES

Consequences related to shortage of resources are discussed as follows:.

2.6.1 Patients and quality care

Shortage of health resources may have serious implication for quality patient care. Quality is described as a multifaceted concept whose dimensions encompass technical competence, care efficiency, interpersonal relationship, safety and continuity of nursing care (Mayeng & Wovaardt 2015:2). In addition, quality includes critical resources such as staff, enough space, medicines required to provide care (WHO 2018:11). Van Rensburg (2014:16) reveals that premature loss of patients' life occurs in SSA. In the case of SSA, 90% of maternal death and 80% of still births are attributed to a lack of trained midwives. This is a reflection of poor nursing care. Washeya (2018:13) ; Armstrong (2009:6) and Amakali (2013:34), highlights that scarcity of nursing personnel might lead to service disruptions, poor nursing practice, increased workload and stress amongst the remaining workforce. Gebrehiwot, Sebastian, Edin and Goicolea (2014:14), point out that maternal deaths are reported annually in Ethiopia because of medical complications caused by shortage of skilled midwives and neonatal care equipment. Munedzimwe (2017:32) expresses that shortage of medication could lead to treatment interruption and drug resistance. According to Muya (2018:48), insufficient drugs and poor infrastructure lead to prolonged hospital stays and overcrowding. In this regard, patients are at risk of

contracting nosocomial infections, thus increasing the workload for health care providers. Armstrong (2009:62) demonstrates that shortage of resources also contributes to increased mortality rates. In addition, Mazibuko (2017:87) expresses that a deficit of funds to purchase diagnostic equipment has affected the implementation of TB programme negatively. Furthermore, Ragoalane (2017:52) indicates that lack of an ultrasound machine in one of the PHC in Limpopo Province has resulted in late antenatal clinic bookings of pregnant women. This led to the community distrusting public health care facilities, including tertiary hospitals. Additionally, Baboo et al (2016:398) report that insufficient ambulance services in the Eastern Cape Province puts patients' lives at risk thus frustrating doctors and nurses.

2.6.2 Health care workers

Health care personnel are involved with direct patient care in a health care setting (International Labour Organization 2010:4). According to Booyens, Jooste and Sibiya (2015:250), human resources are core members of health teams and frontline personnel in the health services. Necochea, Badlani and Bossemeyer (2013:20), state that health personnel are expected to provide quality patient care, irrespective of shortages they experience. Additionally, Rispel (2015:5) points out that the country is experiencing scarcity of nurses, characterised by a decrease in enthusiasm about the profession and lack of care. Previous studies confirm that staff shortages lead to a high workload which affect job satisfaction thus resulting in burnout syndrome (Khamisa, Peltzer, Ilic & Oldenburg 2017:257).

2.6.2.1 Burnout syndrome

Huber (2018:75) and Botha, Gwin and Purpora (2015:21) indicate that job stress and anxiety are most contributory factors that cause burnout and affect work environment. While Xego (2016:55) concur with the statement that staff shortage increases workload amongst employees, thus impacting negatively on patient safety. A study conducted by Ndou (2017:8) reveals that high absenteeism rate is experienced by PNs nursing HIV/AIDS patients, because these patients are very sick and need comprehensive nursing care. Therefore, nurses become exhausted and fatigued, end up taking sick leave regularly because of insufficient support from management (Ndou 2017:8). Furthermore,

Makwero (2018:3) highlights that lack of resources and maldistribution of staff at different levels of health facilities demotivate staff.

2.6.2.2 Occupational health hazard

Work related hazard is described as condition which predispose an employee to a risk of injury (OHS Amendment Act, 1993 (Act No. 181) (South Africa 1993:6). Shortage of resources exposes health personnel and patients at risk of contracting the disease and being involved in litigations (Begg, Andrews, Mamdoo, Engelbrecht, Dudley & Lebese 2018:78). Engelbrecht, Yassi, Spiegel, Van Rensburg, O'Hara, Bryce, Nophale and Rau (2015:23), contamination with human excreta is a health risk to the HCWs. In this regard, the risk might be due to the lack of face shield because of their scarcity in the SA health markets. Mametja (2013:37) reveals that lack of PPE for nursing patients with HIV/AIDS predisposes nurses to needle prick injuries.

2.6.3 Organisations

Health care organisations ought to provide a safe working environment free from any harm for patient safety (Matsoso 2016:18). Each organisation ought to follow a certain structure where the vision, mission and philosophy of the organisation is clarified (Jooste 2018:94). Various studies indicate that one of the causes of shortage of human resources is staff turnover caused by unsafe working environment (Reardon & George 2014:9). Spencer, Du Preez and Minnie (2018:4) support the statement by acknowledging that unavailability of maternity guidelines, hinders effective management of the labouring woman.

According to Young (2016:4), prolonged waiting time in public hospitals is experienced. This might be due to long queues at the billing office, doctor's consulting rooms or at the pharmacy, due to shortage of human resource. This signifies poor organisational structure and planning. Mokgoko (2013:67) concurs with this statement and mentions that most patients do not get all their medication on the day of consultation. Therefore, they are expected to return for collection of the remaining medication. The organisation must be well structured to reduce long waiting time as stipulated in the National Core Standard domain number one, patient rights (South Africa 2011a:19).

2.7 STUDIES CONDUCTED IN REPUBLIC OF SOUTH AFRICA REGARDING SHORTAGE OF RESOURCES

According to the Treatment Action Campaign (TAC) (2018:1), health issues are still major challenges in SA, especially in Gauteng Province because of overpopulation. Malatji, Ally and Makhene (2017:329) acknowledges that staff shortage poses a challenge and risk to the nursing staff, patients and quality of care. Additionally, increased workload, patient complaints, and poor-quality care is reported in most studies. Pillay (2017:33) indicates that SA is experiencing high staff turnover due to various factors, some being deficit of human and non-human resources, poor working conditions, high workload, poor staff development and low salary. Mokoena (2017:50) reveals that one of the causes of staff shortages is absenteeism in the workplace which contribute to understaffing in the unit and increases workload on the remaining staff.

Insufficient non-human resources such as blood glucose machines results in some tasks not being performed, which is an omission that might cause a patient ‘s death (Xego 2016:56). According to Somahela (2014:37), non-functioning old equipment and lack of ambulance services, were reported in one of the hospitals in the Eastern Cape, thus leading to work realted stess. The South African health care system encourages the use of PHC facilities as the first line of contact. However, various reports revealed limited availability of essential medicine at those settings (Zuma & Modiba 2019:1536). Maseko and Harris (2018:12) allude that inadequate nurse patient ratio, result in sub-standard nursing care and low staff morale.

2.8 SUMMARY

This chapter presented the literature review regarding health care resources in SA context and other countries. Factors contributing to shortage of resources, its consequences, to the patient and impact on quality care were also detailed. Numerous findings were discussed and gaps identified. The following chapter deliberate on the research methodology and design.

CHAPTER 3

RESEARCH DESIGN AND METHOD

3.1 INTRODUCTION

Literature review on shortage of health resources globally, internationally, SSA and the South African context was dicussed in chapter two. This section outlines population, sample and sampling methods, data collection and analysis, research design and methods. The stages followed to ensure trustworthiness are also described. Ethical principles and considerations applied in the research are described. This hospital is situated in a highly urbanised township in a metropolitan municipality area. The aim of this chapter is to outline the stages of investigation and measures followed in order to answer the research question.

3.2 RESEARCH DESIGN

The search plan described choices to be taken regarding the subject of study amongst people, using what investigation approaches, for what aim (De Vos et al 2017:142). Qualitative, explorative, descriptive study plan grounded on phenomenological interpretive approach was used. The phenomenological design has its roots in both philosophy and psychological views which rely on detailed interviews with people who have experienced the occurrence of attention (Kelly et al 2016:4). The research design attempts to recognise partakers' insights and viewpoints of their condition. During discussion, the phenomenological investigation philosophy was utilised to direct the study through collection of data and analysis.

3.2.1 Qualitative research approach

Qualitative analysis method is a way of considering the lived experience of people and the significance thereof (Alase 2017:10). These is used to describe and explore a situation where slight is recognised about it. A qualitative research model method was chosen to reply the research inquiry since it involves a truthful experience of members who were involved in a expressive discussion with the investigator (Grove et al 2013:25).

Kivunja and Kuyini (2017:26), describes paradigm as a method of observing at a normal phenomenon, a worldview that includes asset of philosophical expectations and that direct one's tactic of investigation.

According to Holloway and Wheeler (2010:341), qualitative paradigm is a framework that is applied to assist the investigator to produce credible findings. Constructivist paradigm emphasises dynamic, holistic and individual facets in their whole, within the framework of those who are involved the phenomena (Moule & Goodman 2014:209; Streubert & Carpenter 2011:88). This paradigm assists the researcher to describe and discover the existed experiences of PNs working through shortage of resources in their daily life and what it meant to them (Polit & Beck 2017:54). Constructivism aims to trust the participant views to construct meaning of a situation (Creswell & Creswell 2018:8). The research design permitted the personal opinions of the members to be articulated and captured on an audio stereo. In this study, constructivist paradigm assisted the analyst to gain insight about the experiences of PNs working with shortage of resources. Findings were interpreted and analysed.

3.2.1.1 Characteristics of qualitative research design

- Tends to be explorative to understand knowledge and action of members from their viewpoint (Parahoo 2014:56).
- Qualitative analysts gather data in a natural environment where members encounter a difficult situation (Creswell & Creswell 2018:180).
- Gather difference methods of information, including interviews, monitoring, credentials and video data, rather than relying on a sole fact.
- Is flexible, allows the researcher to adjust to innovative evidence throughout information gathering.
- Frequently involves combining different data collection strategies i.e. triangulation (Polit & Beck 2017:463).
- Key instruments of the study are to collect data by examining the document, observing behaviour or interviewing participants.
- Seek to understand the context by visiting participants and collecting data on their own.

In this study, participants were knowledgeable on the subject content and provided relevant information pertaining to the study.

3.2.2 Explorative research design

The phenomenon, deliver full explanation of its meaning and create the image of the world from perception of contributors. Its goal is to file and define the miracle of awareness **(**Hunter, Howes & McCallum 2019:9). Explorative investigation design in this learning starts with the phenomenon of attention and was eventually fully examined. In addition, it assists researchers to develop the initial understanding of the situation and signifies if further research pertaining to the topic is needed (Bothma, Greeff, Mulaudzi & Wright 2010:50). The plan was suitable to satisfy the investigator's interest and wish for more thoughtful of the researched topic.

3.2.2.1 Advantages of explorative design

- It allows the investigator a chance to perceive and provided a picture of what has occurred naturally (Hunter et al 2019:3).
- It allows the investigator to contextualise how members perceived their activities, environment and their part within the context of the study.

This study employed an explorative design to allow for deep understanding of the researched topic (Hunter et al 2019:8). The researcher attempted to gain insight into a phenomenon by asking the main question: "Tell me, what are your experiences of working with shortage of human and non-human resources in this hospital?"

3.2.3 Descriptive research design

This plan is used to obtain rich and emic information about the situation and how participants see the world (Bradshaw Atkinson & Doody 2017:5). The aim of this plan is to observe, define, and document facets of a state as it naturally transpires and who is involved (Hunter et al 2019:11). Information on descriptive inputs regarding experiences on shortage of resources was gathered from volunteering PNs during face-to-face interviews. The analyst tried to obtain intense meaning of occurrences by probing members. Sound recording and field records were used to gather information about the real-life situation.

3.2.4 Phenomenological interpretive design

According to Holloway and Wheeler (2010:213), phenomenology is described by way of a philosophy which determines the sense of an individual's knowledges over their own testified experiences. A phenomenological interpretive design using narrative perspective was selected to encourage the analyst to listen to members as they relate their experiences with regard to shortage of resources during interviews (Polit & Beck 2017:473). Phenomenologists stipulate that experiences should be scrutinised according to the way they happen. It is interesting to understand how individuals come to know their own experiences, which allow them to label the imperative aspect of that expertise (Mills & Birks 2014:183). The aim of phenomenological teachings is the reality about the situation, even if is difficult to obtain complete truth, those who experience this situation, know it better than any other person. Heidegger's philosophical analytic concentrates on the individual existence in their world and within their social context (Kelly et al 2016:7). Phenomenologists regard individuals as important and fascinating because of people's alertness. This design highlights that member's actions should be clarified with reference to their vigilant intents of something (Streubert & Carpenter 2011:74). This study followed an interpretive phenomenological design which has its roots in both philosophy and psychological point of view which relies mainly on detailed interview with people who have knowledge about the phenomenon (Polit &Beck 2012:496). Phenomenology as a qualitative practice will be used to examine the experiences of participants.

3.2.4.1 Descriptive phenomenology

This research approach describes things as people experience them in their daily life (Polit & Beck 2017:471). These aspects include hearing, seeing, believing remembering and acting. Phenomenological actions include:

Bracketing

Bracketing is a procedure that describes, holds in suspension defined ideas and thoughts about the phenomena under study, not to affect data gathering and breakdown. Bracketing can never be achieved totally. Streubert and Carpenter (2011:77) state that in bracketing, a researcher tries to set apart former information about the situation under study, to prevent data from interfering with the results.

Intuiting

Streubert and Carpenter (2011:76) indicate that the investigator stays open during the interviews. This happens when the investigator tries to advance an alertness of the experience without obliging prior expectations on the procedure. This assisted the scientist to have a better understanding how PNs implement their experiences in order to cope with shortage of resources.

Analysing

This process involves identifying the occurence under search, based on data attained and offered (Streubert & Carpenter 2011:80). The analyst examined the data cautiously and deliberately reading and re-reading information, checking of meanings and clarity (Brink et al 2013:122). The main data basis in this education were qualitative interviews that were audio taped.

Describing

Describing refers to giving particulars of how information was composed, apprehended and analysed. The purpose was to communicate and present a verbal description of the phenomenon based on grouping or classification (Streubert & Carpenter 2011:82).

3.2.4.2 Interpretive phenomenology

The interpretive approach aims to understand existed experiences of people in precise ancient settings (Alase 2017:12). The focal point is on explaining and understanding, not describing human experience only. Interpretive phenomenology depends on thorough discussions with people who have undergone the significant occurrence. In this study, gathering and analysis of information were done through exhaustive interviews with members. Hermeneutics, as suggested, presents the skill including philosophy of interpreting the significance of members' knowledges (Polit & Beck 2017:472).

3.3 RESEARCH METHOD

This method describes how research is conducted systematically in a field of study (Clough & Nutbrown 2012:21). This method includes people, sample and sampling technique, data collection and analysis, measures to ensure trustworthiness and ethical considerations. The settings selected to perform the training and the motive are included.

3.3.1 Setting

Research location denotes to a specific place utilised to perform the research (Grove et al 2015:276). The study took place in a tertiary hospital situated in the Tshwane District, with a population of 90, 945 (Statistics South Africa 2011). It is located about 30km from the city of Pretoria (Tshwane) in the northern side. The hospital has 1 650 beds and 23 departments with an average of 1 552 bed occupancy rate at the time of the study. It comprises of 39 wards which are clustered according to clinical specialities such as maternity, neonatal, surgical, medical, paediatric, accidents and emergency (Makgopela 2019). The hospital receives patients transferred from primary and secondary health care facilities around Tshwane District and from other provincial hospitals in South Africa. The hospital staff complement is 3 500, including 456 doctors and 1 453 nurses (Makgopela 2019). It serves as an academic institution for the Sefako Makgatho Health Sciences University (SMU). Both nursing and medical students are allocated to the hospital for experiential learning and teaching. As an academic and referral hospital, it needs adequate allocation of resources for quality service delivery.

3.3.2 Population

The number of individuals that can offer the investigator with data essential for the study are named a population (Babbie 2012:76). People used for the study are derived from a target inhabitant and are accessible from which a sample is resulting (Gerrish & Lathlean 2015:174). The target population in this investigation was PNs who were ready to take part in the research and were eligible. Factors that define the population attributes are eligibility, inclusion and exclusion criteria.

3.3.3 Sampling method and technique

The procedure of choosing specific research participants out of a community so that interpretations about an entire community can be completed is called sampling (Cottrell 2011:125). Subgroup of people chosen from statistical populace can also be called sampling. Non–probability purposive sampling was utilised.

3.3.3.1 Sampling method

The method of choice used in this research is non-probability purposive sampling. Purposive sampling enabled the researcher to make individual decision on selecting information rich participants that are clear in their skills. (Parahoo 2014:274). This sampling method was used since the researcher chose PNs who had 2 years' experience or more in the unit in order to provide rich information about their experiences. The partakers were nominated purposefully due to the skill and information that they implement in order to cope with shortage of resources.

3.3.3.2 Sampling technique

Two sampling methods used were probability and non-probability sampling. A probability sampling procedure is utilized to choose research component randomly, where each component in a population has an equal chance to be chosen (Brink et al 2018:126). This is mainly used in quantitative study while non-probability is utilised in qualitative study and participants are chosen non-randomly. This technique permits the analyst to select the sample depending on their skill and information. In this study, judgemental or

purposive sampling was utilised. Members were selected purposefully due to their experiences and skill of using different coping mechanisms to shortage of resources.

3.3.4 Sample size

Qualitative scientists judgementally choose study members do not pre-determine the number of members needed before time, because sampling ends when new data emerge meaning when data saturation is reached (Bradshaw et al 2017:5). According to Munhall (2012:544), data saturation determines the sample size in qualitative study. Professional nurses who offered to take part and were available at the time of the interview were regarded as target group.

3.3.4.1 Sample

This is a subdivision of people, component which are basic elements in which information are gathered (De Vos et al 2017:223). Components often used in nursing studies are humans. People in the study are referred to as subjects.

3.3.4.2 Eligibility criteria

Eligibility criteria refer to list of features required for the target populaces which covers inclusion and exclusion criteria (Grove et al 2013:352). Inclusion values are features that make components within the populace appropriate for selection in the research (LoBiondo-Wood & Haber 2014:233).

Inclusion criteria refer to the following:

- PNs who were eager to join in the investigation.
- PNs with two years or more experience working as PNs.
- Male or female, between 25 to 65 years of age.
- PNs working in selected units.

Exclusion criteria in this study refer to the following:

- Professional nurses who were not eager to join in the investigation
- PNs who have less than two years' experience.
- Male or female who are not between 25 to 65 years of age
- PNs who are not working in selected units.

3.4 DATA COLLECTION

According to Alase (2017:14), information gathering is the process of gathering facts to direct the research question and purpose. In-depth individual face-to-face interviews, field and observational notes were utilised. In this study, discussions were directed to 16 members at the approved tertiary hospital situated in the Tshwane District. English was the preferred language that was used thus, all members understood . Minimal interruption was experienced, it occurred only when the researcher sought clarity.

3.4.1 Data collection approach and methods

An interview is a procedure of data gathering in which the investigator questions contestants in an eye-to-eye encounter (Creswell 2014:246). In this study, data collection secure information from the demographic data. The methods utilised were observation and in-depth individual interviews. These methods are used in qualitative research to increase the researcher's understanding (Parahoo 2014:334). Brink et al (2018:143) highlight that the response rate is better in face-to-face interviews if participants are willing to talk.

3.4.1.1 Development and characteristics of data collection instrument

An interview guide (Annexure I) was created for data collection and met the study criteria (Polit & Beck 2017:267). Two sections appeared on the interview guide Section A was the demographic collection tool and section B had a grand tour question with a broad question which was used to discover the partakers' experiences. Sixteen members were asked the grand tour question followed by probing questions. Participants' details were as follows: gender, age, qualifications and experience as a professional nurse.

3.4.1.2 Testing of data collection instrument

The investigator conducted the pre-test to check the interview guide prior the procedure and to acquaint herself with the skill of asking the grand tour question (Brink et al 2018:161). Two interviews were done with members who would not form part of the sample but met inclusion criteria. Pre-tested was also done on the audio stereo for sound quality. The pre-test results showed that there were no errors regarding the stereo and no amendments were needed to the tool since it produced what the analyst expected it to reach.

3.4.1.3 The researcher as the key instrument

The investigator was the chief tool in this research and personally involved in the procedure. The procedure was explained to participants in detail and demographic data were completed before each interview. An unstructured in-depth face-to-face interview was then conducted (Annexure I) (Creswell & Creswell 2018:181).

3.4.2 Data collection process

Information gathering procedure is the one that generates large amounts of evidence (Sutton & Austin 2015:277) This information is in the form of audio recordings, with large volumes of transcribed dialogue and field notes to complement audio-recorded interviews.

3.4.2.1 Gaining access to the institution

Gaining access to the site was achieved through negotiation with gatekeepers (Polit & Beck 2017:168). This was done to create faith amongst the investigater and the gatekeepers. Verbal explanation was provided, every member signed an informed consent form (Annexure G). In addition, ethical rules were maintained as part of the negotiations. The following documents were handed to gatekeepers: Ethical Clearence Certificate from Research Committee of Ethics: Department of Health Studies at the University of South Africa (UNISA) (Annexure A). Approval from Tshwane District Research Committee (Annexure C) and from the Hospital where Research took place Chief Executive Officer (CEO) (Annexure D) which covers permission from the Director

of Nursing and from relevant unit managers where the study took place. Unit managers were engaged as gatekeepers to avoid disrupting the unit routine.

3.4.2.2 Preparation before interview

Tools were assembled in order before the interview to avoid disruptions during the process. The intention and reason to perform the research were clarified to contributors. Unpaid involvement and the right to pull out without persecution were also explicated. Members were reassured that confidentiality would be maintained. The process of using pseudo names, recording with an audio recorder and the taking of field notes was explained. Pseudonyms were allocated to members according to the arrangement of interviews. Interviewee 1 was P1. The site for the interview was prepared earlier. A note "Please do not disturb note put on the door of the room where interviews were taking place. Cleaners were requested to clean the room for interviews early. Two chairs were put in the room, one for the researcher and one for the participant, arranged in such a way that eye-to-eye interaction between the investigator and the participant was maintained. Interviews were conducted on different dates in different units but from the same hospital due to diversity of unit distribution. A field notebook and audio recorder were put on the researcher's table for easy access. A book and a pen were made available for the taking of field notes. The study was conducted according to the arrangements and the convenience of participants in every unit. All interviews took place as planned.

3.4.2.3 Interviewing process

Qualitative data were gathered through interviews that were audio recorded. In this study, unstructured interviews using an in-depth open-ended, face-to-face technique were used.

- Each participant was welcomed and given the opportunity to complete a demographic form prior to the interview process.
- The audio recorder was switched on and the grand tour question followed "Tell me what are your experiences of working with shortage of human and non-human resources in this hospital"?
- The starting time was recorded, and a mobile phone was used for timing.
- Interviews were scheduled for a period of 25-40 minutes per participant.

- Probing questions were posed following participants' responses; questions were clarified or rephrased when necessary.
- Interviews were conducted similar to a normal conversation by using unstructured interviews to obtain information to answer the grand tour question.
- Field notes were taken, participant's reaction was observed and recorded.
- The interview was stopped when the time had elapsed or when the participant stopped talking.
- Finishing time was also recorded.
- Data saturation occurred on the 16th individual.

3.4.2.4 Ending interviews

- After each session, the analyst listened to the recorded interviews for audibility and completeness.
- Recorded interviews were kept confidential in a safe place.
- A code number was used to refer to any of records of the participant's information that was obtained during the study.
- Field notes were kept safe to assist the investigator to recall and discover the procedure of the interview.
- The analyst kept data before, during and after the relationship with participants (Parahoo 2014:367).
- Data analysis and management are described fully in the relevant paragraph.

3.4.2.4.1 Advantages of an unstructured individual interview

Saks and Allsop (2013:88) outlined the advantages of detailed unstructured interview as follows:

- Use of an unstructured interview allows the investigator to collect data that address the research objective. In most cases, selected participants give rich information (Schmidt & Brown 2012:235).
- Observations made during the interview assist during data analysis in providing additional information into emergent themes and categories.

  Data collecting process is costly but the information is of high quality.

- The interview is relevant for qualitative studies where the investigator does not have enough insight into the topic.
- Probing implies to the informant that the investigator is concerned about understanding their experiences.
- Unstructured interviews generate more in-depth information from the participants' beliefs and attitude.

3.4.2.4.2 Advantages and disadvantages of the interview

Advantages are as follows:

- According to Wagner, Kawulich and Garner (2012:102), an interview gives the investigator a chance to clarify misunderstanding of queries during the process.
- Scientists provoke more data through practise of interactive aids that inspire participants' collaboration.
- Degree of response rate is well advanced in interview than that of questionnaires (Wagner et al 2012:102).
- It helps to uphold decent personal affiliation with members that leads to honesty
- The interview assists the investigator to figure confidence and gain support from partakers.

Disadvantages experienced from the study interview were as follows:

- Some interviews exceed the arranged time because some members elaborated on their skills
- Sometimes it is difficult to get participants because of shortage of staff.
- Sometimes there will be interruptions, especially when PNs were alone on duty.

3.5 DATA ANALYSIS

Babbie and Mouton (2012:646), describe data analysis as not-numeric testing and the explanation of observations. The aim is to discover fundamental meaning and influence in relationships. Qualitative data analysis and data collection took place simultaneously;

hence the analyst organise and understand huge volume of information at the same time. During manual analysis, the analyst attended to the recorded discussions frequently (Liamputtong 2013:388). The audio-recorded interviews were transcribed verbatim. Ground records were compared with interview findings and categorised and coded. The procedure of hearing and translating facts allowed reseacher to be involved with information as this was needed for enquiry. According to Gray, Grove and Sutherland (2017:270), dwelling on information, means that one is fully devoted in data and applies a lot of period attending, understanding and interpreting.

Eight steps of Tesch's inductive, expressive open technique of qualitative analysis were used for information scrutiny (Creswell 2014:198; Grove et al 2013:89). Process of reading and re-reading the transcript was done, narration was coded and put in clusters. Then it was categorised according to characteristics of responses to form themes and categories. Audio recorded interviews of 16 participants transcribed verbatim and analysed. All transcriptions were inscribed in tabular form for coding. An independent coder was consulted (Annexure J) findings were discussed, and consensus was reached. Basias and Pollalis (2018:94) state that an investigator who sticks to a qualitative research perspective, observes, interviews, summarises, describes, analyses and interprets occurrence in their real aspect.

- **Tesch's eight steps method of qualitative data scrutiny** (Creswell 2018 & Creswell:196)

Step 1: Read all the transcripts thoroughly

The analyst got an idea of the entire study by analysis all verbatim records thoroughly. Data collected and transcripts were read several times by the analyst so that all thoughts reported by members could be recorded. The meaning emerged during reading and some ideas were written down as recalled.

Step 2: Pick up one interesting shortest document

Analyse the meaning of the document whilst going through it. The investigator asked herself questions about the transcription of the discussion. She also inscribed opinions about it on the side and its underlying meaning. The analyst read transcripts once more

and analysed them. She questioned herself about the transcripts of interviews by referring to the codes.

Step 3: Formulate a list of all topics

A list of themes was created. Similar themes gathered and coded, which were then grouped based on repetition of thought used in verbatim transcriptions. Notes were written in the side. The researcher started recording thoughts about the data on the side of verbatim transcripts.

Step 4: Abbreviate the topics as codes

The analyst took a list, went through the data again and abbreviated topics that appeared into codes and clusters. On the side of the transcription, codes were written next to relevant segments. Differentiated codes were written in the margins of the paper with a different colour pen against data they represented.

Step 5: Develop themes, categories and subcategories from coded data

From related transcripts, themes, categories and subcategories were developed from data coded. The list was reduced by collecting topics that narrate to one another to generate sense of themes, categories and subcategories.

Step 6: Assess codes, topics and themes for duplication

In this step, similarity was checked by using a list of all codes, words, content and themes. Refined were made required. The researcher grouped similar codes to fit the description. Acronym for each category and codes were written alphabetically.

Step 7: All themes, categories, subcategories were grouped together

Information fitting to each category were gathered in one place and a pilot analysis was gathered. The scientist and co-coder met to reach agreement on themes, categories and subcategories that were identified.

Step 8: Recode the existing data when necessary

The existing data were recoded, and findings were reached. Three themes, 7 categories and 21 subcategories emerged. Transcribed data were submitted to the co-coder for verification of the results. The co-coder studied data answers from the independent coder that were the same as those of the main coder.

Data analysis was done to arrange and offer structure to produce meaning. Participants provide meaning from their idea rather than from the investigator's perception.

3.5.1 Data management

Management of data means the way information is accomplished as well as how it is kept safe after being composed. The audio-logged interviews were translated exact proximately after data collection and then categorized, held on a memory stick for 5 years for audit trial purposes (Grove et al 2013:531). It is important to have a data organization plan before collection of data to prevent confusion. The analyst coded data after collection to ensure anonymity and confidentiality. Data were saved in the supercomputer to protect them against loss. Codes were used on members documents to ensure anonymity and confidentiality, thus kept under lock and key in the researcher's office. The analyst recorded interviews using different colours, one colour was used for response to questions related to experience, another one used for responses that came out during interview. Data decrease was a form of analysis that assisted the investigator to improve and organise facts in such a way that the conclusion was reached and proved (Namey & Guest 2015:139). Data management and analysis occurred simultaneously.

3.6 TRUSTWORTHINESS

According to Grove et al (2015:513) trustworthiness is defined as the process used in qualitative study to recruit a training asset. Lincoln and Guba's model (1985), as cited by Bradshaw et al (2017:5) use standards for evolving trustworthiness in qualitative study which consist of: credibility, dependability, confirmability and transferability.

3.6.1 Credibility

Kuada (2012:101) define credibility as a way of examining the degree to which the investigator has tracked the recognised measures in directing a qualitative research.Conclusions are well-matched with the insights of the individuals under study.This means members recognise the sense they give to a situation (Holloway & Wheeler 2010:303). The scientist collected facts by means of a digital voice recorder. Lengthy engagement was attained by remaining in the ground, leading interviews until data overload was reached. In-depth understanding of the occurrence was observed.

3.6.2 Transferability

Bryman (2012:390) state that transferability was confirmed by providing good descriptions of the study stages, which can be inspected and moved to other locations. Numerous procedures were useful to indorse transferability of the results such as how information spreads to selected partakers. The investigator led purposive sampling through which participants shared common valued understanding about their knowledge with the analyst.

3.6.3 Confirmability

The possibilty for congruency of information in the form of correctness and relevance is termed confirmability. It is concerned whether data signify the information provided by the members or influenced by the scientist's thoughts (Brink et al 2018:159). This was boosted by creating an audit trail to allow other scientists to conduct a reliable check trail (Lincoln & Guba 1985:328 as cited in Polit & Beck 2017:559). Audit trial is an organised process of collecting data and suggestion that would permit a self-governing examiner to influence inferences about data. The analyst did the following audit trail:

- Comments from the study overseer were saved.
- The investigation process, including the tools development were documented. All probing questions which were asked to the members were saved
- Goals to write research document from the results were specified.
- Data saving and rebuilding goods such as the final reports were reserved.

3.6.4 Dependability

This is taken as a practical process where the audit trail is drawn to check the ways for making a choice (Taylor 2014:204). The analyst also recognised an audit trail by awarding the coded interviews as well as answers, variances in the themes, categories and subcategories to the supervisor. An autonomous commentator scrutinised the transcribed interviews and data analysis process. Appropriate backup brochures such as audiotapes and verbatim recorded tapes are made accessible.

3.7 ETHICAL CONSIDERATIONS

A system of moral values that is worried about the degree to which research measures follow to professional, legal and common guidelines of the study members is known as ethical principles (Babbie 2012:26). Ethical considerations direct decision-making and guide accountability during the process of research (Norwood 2010:69). Characteristics which were taken into thought to uphold loyalty to moral principles were:

3.7.1 Ethical clearance and permission

3.7.1.1 Ethical clearance

The institution was protected by gaining ethical clearance certificate from the Research Ethics Committee of the Department of Health Studies at University of South Africa (UNISA) (Annexure A).

3.7.1.2 Permission

The researcher followed the departmental process to apply for approval from the health care institution (Annexure B). Approval to perform the study was secured from the Tshwane District Research Committee in Gauteng Province (Annexure C), and Chief Executive Officer (CEO) of the hospital where the study was conducted (Annexure D), . Approval from the CEO covered that from the Director Nursing and from relevant unit managers where the study took place. Unit managers were engaged as gatekeepers to avoid disrupting the unit routine.

3.7.2 Respect of individual autonomy

The value of human dignity includes people's right to make well-versed, voluntary decisions about the study because individuals are autonomous.

3.7.2.1 Rights of the participant

Autonomy is the right to self-determination (Urden, Stacy & Lough 2018:14). Subjects in the study had the right to choose whether they want to join or draw without the risk of penalty or harmful treatment (Fouka & Mantzorou 2011:5).

3.7.2.2 Informed consent

By gaining the informed consent, the rights of members were protected (Annexure G). Signature on the consent form was the sign that their choice had been made without any pressure. The information leaflet (Annexure H) for study purpose and objectives was explained. Complete information about the study was given to partakers so that they could take a conversant voluntary choice. Other rights concerning confidentiality, anonymity, respect, dignity, and withdrawal from the study if feeling uncomfortable were ensured. Permission to have the conversations audio-recorded with an electronic device was obtained.

3.7.3 Beneficence

Respondents were to be treated ethically, the value of beneficence and non-maleficence implies "be of benefit, do not harm" (Fouka & Mantzorou 2011:6). This ensures that we secure the wellbeing of the participants, that they remain anonymous, minimises harm and maximise benefits. Findings of this learning were utilised to create rules that would deliver improved coping mechanisms for shortage of resources.

3.7.4 Justice

Booyens et al (2016:441) state that justice denotes to a partaker's right for reasonable action, equity and fairness. There must be fair selection of the study population for

motives connected to the research problem and there ought to be fair equilibrium of dangers and benefits amongst all persons involved in the investigation (NDoH 2015:14).

In this study, the principle of justice was practiced by respecting participant's rights for privacy. The study population was selected fairly according to age and gender. Interviews were conducted in an office at a mutually agreed venue and time. Privacy was maintained, the names of the participants were replaced by pseudo names and all documents were kept save.

3.7.5 Confidentiality and anonymity

In this study, confidentiality is a way of not disclosing information obtained from the study (Green & Thorogood 2014:72). Anonymity was also maintained, participants enjoyed confidentiality, with the hope that information provided was not given to anyone who would use it against them. Information was kept locked using the password-protected computer of the researcher (Langford & Young 2013:140). Demographic data on the interview guides did not have any information connected to the character of the partakers. Confidentiality was maintained by using pseudo names.

3.7.6 Scientific integrity

Scientific writing followed; no research misbehaviour observed such as plagiarism in the data used without giving credit to the source (Wagner et al 2012:256). Honesty was maintained (Stake 2010:220). Scientific integrity was maintained by means of objectivity, honesty, collecting of accurate data and correctly citing sources. Trustworthiness was protected through abstaining from false fabricated information. The results of this study replicate what was attained throughout the research procedure.

3.8 SUMMARY

The research design and method were described in this chapter. Qualitative, explorative, descriptive and phenomenological approach were used. The method used to conduct the study were sample, sampling, population, data collection and analysis. Measures to secure trustworthiness and ethical issues were considered. Chapter four will describe data analysis and the interpretation of data.

CHAPTER 4

DATA ANALYSIS, PRESENTATION AND INTERPRETATION OF RESEARCH FINDINGS

4.1 INTRODUCTION

The previous chapter outlined research design; methods applied to experiences of professional nurses regarding shortage of resources in a tertiary hospital. Chapter 4 presents analysis of information and explanation of results in response to research question. The goal of this research was to explore and define experiences of professional nurses regarding shortage of resources in a tertiary hospital in the Tshwane District and how they cope with the provision of patient care.

4.2 DATA MANAGEMENT AND ANALYSIS

Polit and Beck (2017:725) define data scrutiny as the logical organisation and combination of research data. In keeping with the qualitative approach, data analysis was conducted simultaneously with data collection. Tech's eight steps of qualitative analysis for textual data as cited in Creswell (2014:198) was used for information scrutiny using. Unstructured interviews were conducted; the analysis process was provided in detail in the previous chapter (refer to section 3.6.2). This entailed a systematic process that was combined with continuous reflection on the data. Following extensive reading and re-reading, analysis of the transcribed audio-recording of the participants' responses revealed 3 themes, 7 categories and 20 subcategories. These are shown in Table 4.2 below which precedes the discussion of each theme, category and subcategory. The discussion has been supported by excerpts from verbatim interview quotes of participants. In addition, data were entered in the computer to safeguard it against loss. The research questions were:

- What are the experiences of PNs concerning shortage of resources in a tertiary hospital in the Tshwane District?

- What coping mechanisms do PNs apply to address the challenges of shortage of resources?

4.3 DEMOGRAPHIC ANALYSIS OF PARTICIPANTS

Interviews composed of 15 females and 1 male bringing the total to 16 participants. All participants were PNs ranging from 25 to 65 years. Participants' demographic data are displayed in Table 4.1 below. Members were allocated pseudonyms to protect their identity. Aim of providing demographic information was for readers to recognise the bases of the data. It is used in qualitative data as a means of ensuring transferability as participants' characteristics are described. In addition, this is to permit for comparability of results in similar situations like the one on study (Bryman, Bell, Hirschsohn, Dos Santos, Du Toit, Masenge, Van Aardt & Wagne 2014:45). Participants were PNs working in a selected tertiary hospital in the Tshwane District.

Table 4.1 Demographic characteristics of the participants

Participants	Age	Gender	Allocated unit	Years of experience	Academic achievement
P1	64	Female	Medical	4 years	Diploma
P2	37	Female	Medical	8 years	Basic Degree
P3	40	Female	Medical	6 years	Diploma
P4	56	Female	Paediatric	20 years	Basic Degree
P5	33	Female	Paediatric	2 years	Diploma
P6	35	Female	Paediatric	5 years	Basic Degree
P7	55	Female	Surgical	9 years	Diploma
P8	34	Male	Surgical	2 years	Diploma
P9	28	Female	Maternity	3 years	Diploma
P10	30	Female	Maternity	3 years	Diploma
P11	41	Female	Maternity	17 years	Diploma
P12	32	Female	Emergency	8 years	Diploma
P13	46	Female	Emergency	4 years	Diploma
P14	29	Female	Intensive care	4 years	Diploma
P15	42	Female	Intensive care	5 years	Diploma
P16	57	Female	Intensive care	20 years	Diploma

Academic achievements were as follows: 13 participants have Nursing Diploma and 3 hold basic Nursing Degree. Years of experience fluctuated from two years to twenty years. Interviewees were recruited from the following units: accident and emergency, intensive care, medical, paediatric, surgical and maternity.

4.4 PRESENTATION OF DATA FINDINGS

Hebda and Czar (2013:558) describe data presentation as putting searched words in order that can be tracked by the reader. This section provides the overview of themes, categories, subcategories, verbatim quotations and meaning that emerged from data analysis. The researcher offered information in a description form, with straight quotes from the partakers. Three themes, 7 categories and 20 subcategories emerged from data analysis**.** Coding was utilised with the members answers and conceptual relationships were acknowledged.

A theme is an extract existence that shows meaning to recurrent occurrence and its different presentations (Saldana 2013:175). The foundation of the occurrence into an expressive entire is catches and united by a theme. In this study, themes were discussed as followes: 1 Participants reported experiences on dial lack of material resources. 2 participants reported experiences on shortage of nurses and support staff. 3 participants reported positive experiences on dealing with shortage of resources. Participants'verbatim quotes, were used to support the results.

Table 4.2 below replicates the collated representation of themes, categories and subcategories pertaining to this study. Detailed explanation follows in subsequent paragraphs.

Table 4.2 Themes, categories and subcategories that emerged from participants

Theme	Category	Subcategory
1 Participants reported experiences on dial lack of material resources	1.1 Professional nurses expressed experiences on Shortage of equipment	1.1.1 Delayed time for nursing care 1.1.2 Inadequate infrastructure 1.1.3 Shortage of linen 1.1.4 Shortage of consumables
	1.2 Participants experienced shortage of medical supplies	1.2.1 Unavailabilty of medicines 1.2.2 High rates of patients' complaints
	1.3 Participants expresses negative effect on lack of material resources for patient care.	1.3.1 Increased length of hospital stays 1.3.2 Negative patient outcomes 1.3.3 Risk of nosocomial infection
2 Participants reported experiences on shortage of nurses and support staff	2.1 Participants reported shortage of nursing staff	2.1.1 Burnout syndrome and frustration from nurses 2.1.2 Increased workload related to supervision of novice professional nurses 2.1.3 Impact on the training of nurses 2.1.4 High rate of absenteeism 2.1.5 Unappreciated overwork 2.1.6 Inadequate documentation 2.1.7 Fear of litigation
	2.2 Participants experienced effects on shortage of support staff	2.2.1 Nurses performing non-nursing duties
3 Participants mentioned positive experiences on dealing with shortage of resources	3.1 Participants reported strong motivation for dealing with shortage of resources	3.1.1 Nurses extending working periods and stretching 3.1.2 Nurses improvise
	3.2 Support from management	3.2.1 Supportive supervision

4.4.1 Theme 1: Participants reported experiences on dial lack of material resources

Most members highlighted that non-human resources are required to carry good quality care in the health facilities. This theme yielded three categories, namely PNs expressed

experiences on shortage of equipments, participants experienced shortage of medical supplies and participants expresses negative effect on lack of material resources for patient care. In addition, shortage of equipment mentioned in the study were beds, stretchers, baumanometers, glucometers, incubators, dressing packs, gloves, surgical masks, plastic aprons, ventilators, patient oxygen masks and oxygen cylinders.

4.4.1.1 Category 1.1: Professional nurses expressed experiences on shortage of equipment

Members indicated gross lack of equipment in health facilities that affects the provision of patient care negatively. This category yielded four subcategories, namely: delayed time for nursing care, inadequate infrastructure, shortage of linen and shortage of consumables.

4.4.1.1.1 Subcategory 1.1.1: Delayed time for nursing care

The majority of participants experienced delayed time in nursing care. This was attributed to borrowing equipment from other wards. Furthermore, participants indicated that, sometimes the equipment was unavailable as it was still in use by nurses in another ward. This resulted in verbal abuse from doctors regarding the delay in nursing care. One participant mentioned the following:

> "The experiences is that, it makes our work very difficult and is time-consuming, because every time when you have to use the resources that is not available, is either you ask in another wards or have to speak to err …, or phone them at the stores so that they can provide you with stock. By the time you get what you want, so much time have been wasted. Sometimes it goes to a point that you have to send the patient back to ICU or high care whereby we could have helped the patient if resources were available on time. Sometimes we fight …, not physical fight né with other wards, because they say you always borrow from me and finish my stock. You go there and borrow, knowing that they have it, but they won't give you because yesterday you borrowed." (Participant 6)

4.4.1.1.2 Subcategory 1.1.2: Inadequate infrastructure

Participants reported that available infrastructure was inadequate to accommodate the growing population. One participant revealed:

> "The geographical location has extended extensively in such a way that have been established, but the infrastructure is still the same, it has not been improved, there is no new developments. So if the structure used to cater for the certain number but now the population has gone up, so it can't cater for the large number of people we are seeing on daily basis. So if maybe they could build another hospital somewhere or just a unit for maternity like something that can help us with this large number of patients." (Participant 9)

4.4.1.1.3 Subcategory 1.1.3: Shortage of linen

Most of the participants revealed shortage of linen, despite several requests from laundry. Under these circumstances, patients' bedlinen was unchanged. As a result, patients were required to bring their own linen, including nappies and other necessities. The following quote emphasises these frustrations:

> "Today we don't have linen to change the beds. We did not change all the beds in the morning. So I phoned the laundry yesterday and today, they still don't have linen. Sometimes we run out of nappies and we ask the parents to bring their nappies from home. If you can check now the patients are sleeping on top of mattresses without linen." (Participant 6)

4.4.1.1.4 Subcategory 1.1.4: Shortage of consumables

Participants reported that wound dressing was not done due to lack of dressing packs at the Central Sterilisation Department (CSSD). This resulted in poor patient outcome, septic wounds, delayed wound healing and prolonged hospital stay. One participant stated that:

> "Central sterilisation department don't have any packs, so we must ask from the wards. Now recently we did not have dressing material, gauze, and crepe bandage. We have to ask from another wards. If we do not have, our patients suffer because we cannot dress them. If we change the dressing, what are we going to use to

dress them? This is the problem we are having at the moment. Dressing packs are problems at CSSD." (Participant 7)

Another participant indicated that:

"In most cases we do not have gloves, sometimes we don't have masks, soap disinfectant to wash our hands, paper towels and water… We end up with buckets in the unit. You will see them in the passage there. If there is no water, we use those buckets and they cause cross infection." (Participant 16)

4.4.1.2 Category 1.2: Participants experienced shortage of medical supplies

Proffesional nurses stated lack of medical provisions that impact patient care negatively. This category yielded two subcategories namely: experiences on unavailability of medicines and experiences on high rates of patients' complaints.

4.4.1.2.1 Subcategory 1.2.1: Unavailabilty of medicines

Participants reported experiences of medication shortages. There were no vacoliters as well, especially normal saline. Two participants reported as follows:

"Currently we don't have Vitamin Bco, we used to struggle with Epilim but at least we will give an alternative of Phenytoin. There was a weekend where we didn't have normal saline, so we had to ask from other units." (Participant 12)

"Two months ago, we were out of Lignocaine … It was difficult to suture the patients without Lignocaine. Patients were screaming." (Participant 10)

One participant revealed the following narrative:

"Limitation of stock like they limit medication that they are supposed to give. They will say we will give you example, 50 Bactrim, our ward is an admission ward, we need more than that. Patients have to get that medication 6 hourly and when they give 50, is insufficient, so patients are not going to get correct doses at the correct time. Patient do not get treatment as they were supposed to, is either they get it late or they will get an alternative of what was prescribed, for example, they might

say there is no intravenous treatment, then doctor has to change to oral treatment." (Participant 2)

4.4.1.2.2 Subcategory 1.2.2: High rates of patients' complaints

In this study**,** participants reported that patients' relatives complained of the inadequate nursing care rendered due to the shortage of medical supplies and medication. Participants expressed their frustrations as follows:

> "It is a major problem we are fighting with relatives here saying so and so has been here in hospital, sister, doctor is you still waiting for the company to deliver?" (Participant 16)

And:

> "The other thing is when parents come and find their kids lying on linen with just a drop of blood, they complain." (Participant 6)

4.4.1.3 Category 1.3: Participants expresses negative effect on lack of material resources for patient care

Participants elaborated that inadequate resources pose harmful effect on health care delivery. This category yielded three subcategories, namely: increased length of hospital stays, negative patient outcomes and risk of nosocomial infection.

4.4.1.3.1 Subcategory 1.3.1: Increased length of hospital stays

Inadequate resources were identified as contributing to increased hospital stay. Patients were not observed on time and care was compromised. Participants state their experiences of increased hospital stay as follows:

> "Patients are not monitored the way it was supposed to be. Let us say it was 4 hourly, because the machine is not ours when you go and borrow, they are using it, this means that the patient is not going to be monitored on time. When the condition of the patient changed, we won't have results for that time … whether the

> sugar level err …, is improving or getting worse! These means if it is four hourly, is going to be six hourly because we don't have the machine, so patient's stay is going to be long in our ward" (Participant 1).

4.4.1.3.2 Subcategory 1.3.2: Negative patient outcomes

Participants reported that there is high volume of patients with small number of PNs thus, leads to compromised patient care. This yields negative patient outcomes such as death. The following were the incidents experienced by most participants:

> "Yes, one incident when we had nine patients, meaning six patients were in the cubicle and three patients sitting on the bench outside the cubicle. We had 1 patient with Intra Uterine Foetal Death (IUFD), but when the patient came in the cubicle, the foetal heart was present. Because we could not monitor the patient, it ends up being IUFD." (Participant 10)

Another participant said:

> "Patients come here but there are no nurses to nurse them. Beds might be available but there are no nurses... They end up dying instead of being helped. So the shortage of human resources must be attended to, especially where I am working." (Participant 14)

4.4.1.3.3 Subcategory 1.3.3: Risk of nosocomial infection

The participants recounted that patients exchanged beds to perform procedures such as foetal heart monitoring. However, this practice puts patients at risk of nosocomial infection because the beds are not cleaned. Participants expressed their views as follows:

> "They share the same bed sort of ..., so that the others on the chairs must also be observed because if she is on the bench for 6 hours or more without monitoring the foetal heart. We move one patient every 2 hours, to make sure that other mothers, the foetal activity is there. So, I can say it is something that we adopted so that we can make sure that every patient get care, but at the same time infections are likely to spread." (Participant 9).

4.4.2 Theme 2: Participants reported experiences on shortage of nurses and support staff

Gopee and Galloway (2014:168) indicate that personnel shortage narrates to all types of health workers. Nurses had negative experience with regard to shortage of these resources. This theme produced two categories, participants reported shortage of nursing staff and experienced effects on shortage of support staff.

4.4.2.1 Category 2.1: Participants reported shortage of nursing staff

Subcategories that emerged from this category are: burnout syndrome and frustration from nurses; increased workload related to supervision of novice professional nurses, impact on the training of nurses; high rate of absenteeism; unappreciated overwork; inadequate documentation and fear of litigation.

4.4.2.1.1 Subcategory 2.1.1: burnout syndrome and frustration from nurses

Participants experienced burnout due to shortage of staff, thus struggling to render quality patient care:

> "It demoralise and lead to burnout, because you cannot achieve your objective of quality care, and you also at my age also even think of going for retirement early not because you want to, but because of the stress for being sick, strained emotionally because of not having enough resources. Ill health also due to all this because you are stressed and not happy, then you end up being sick sometimes. Elevated blood pressure which sometimes is because of lack of happiness at work" (Participant 4)

Another participant said:

> "Oh Ma'am…, I am so exhausted. At the end of the day, you will be so tired. You know we work from 06:45-19:00 but you will end up going home at 20:00pm because you want to finish everything for that day". I started working here in 2012 so there is a lot of shortage of staff and equipment. Every day we admit and transfer patients to the units because of shortage of staff." (Participant 3)

4.4.2.1.2 Subcategory 2.1.2: Increased workload related to supervision of novice professional nurses

Participants reported not coping with the allocated work due to supervision of community service nurses (CSN). Two participants pointed out that:

> "Management is trying because now of late they are utilising the ..., (quiet), for example, we have shortage of professional nurses (PNs), so CSNs (comserve) are being utilised). They are the ones that are being hired because there is no money in the government sector. Com serves, are being given post now as professional nurses to can add to shortage of professional nurses but still they still need to be supervised by already overworked PNs." (Participant 4 and Participant 1)

4.4.2.1.3 Subcategory 2.1.3: Impact on the training of nurses

Some members reported that inadequate human resources, makes it difficult for PNs to attend workshops and in-service training. A participant narrated the following:

> "Due to shortage of PNs, everyone is minding, checking their own patients, so we end up lacking information like in-service training. PNs end up stretching to the next patient, nursing a patient without enough knowledge thus compromise nursing care. One need to be equipped with knowledge so that they can be able to give quality patient care." (Participant 14)

4.4.2.1.4 Subcategory 2.1.4: High rate of absenteeism

Participants reported that shortage of nurses lead to exhaustion and a high rate of absenteeism when nurses cannot cope with the frustrating work environment. One participant stated that if one staff member is not at work, due to being sick, the one left behind ends up doing all the work alone and absent herself the next day. The following quotations show how participants relayed their experiences of absenteeism:

> "Our experiences are horrible, frustrations, due to lack of resources which lead to high rate of absenteeism due to people being exhausted, stressed and burnout". Furthermore, uhm …, shortage of staff, sometimes is caused by absenteeism.

> People are absenting themselves from work, phoning and saying they are sick. If somebody is phoning from home, one never knows whether she is really sick or having some problems she want to attend." (Participant 7)

> "At some point you cannot have lunch or tea, that is how taxing it is, and it adds to absenteeism, as such the following day you won't even appear to work. If one worked so hard, you are tired. In the other words, I think is easier to say let me take a break." (Participant 10).

4.4.2.1.5 Subcategory 2.1.5: Unappreciated overwork

Participants reported that there is less support from some supervisors, instead supervisors blame them for mistakes. The following are quotes from participants:

> "I think is human because at times when you are working being short-staffed, they never appreciate instead they blame you on things that are not done" (Participant 1)

> "They will complain saying you are not writing notes, you are not doing this but forgetting that even if they can check the personnel who were on duty, they were just a handful, but they don't see any good that we did." (Participant 12)

4.4.2.1.6 Subcategory 2.1.6: Inadequate documentation

Nurses have to forge records to reflect the nursing care that they did not render. In some cases, participants reported that they did not have a chance to record nursing care. The following quote confirm this:

> "I think us and the management must not mask the situation …, there should be an observer who observes everything as it happens, because our files look more than perfect, it does not reflect the actual situation as it unfolds. Many things need to be attended. Someone who is sitting there and looking at the files, might get an impression that things are in order." (Participant 9)

4.4.2.1.7 Subcategory 2.1.7: Fear of litigation

Participants stated functioning under difficult situation with severe staff shortage and took responsibilities beyond their capabilities because they fear litigation. The excerpt below emphasises this:

> "It affects us very badly and the other thing again is, we are scared of litigations in our unit, because if you are working alone and you got so many patients, you tend to overlook certain patients and if something happens, is on my shoulders because I signed the delegation and agreed that I will be able to work under these conditions." (Participant 10)

4.4.2.2 Category 2.2: Participants experienced effects on Shortage of support staff

Support staff are employees who are not faculty executives, for example, administrative staff, porters and cleaners. Participants reported that when some of the support staff are absent, nurses are compelled to perform their duties. This category yielded one subcategory, namely: nurses performing non-nursing duties.

4.4.2.2.1 Subcategory 2.2.1: Nurses performing non-nursing duties

Nurses performed non-nursing duties to cover the shortage of support staff. Inadequate number of porters result in a backlog of patients' transportation to other departments such as X-ray rooms. In this regard, nurses had no alternative but to push wheelchairs to ferry patients to those departments. Other non-nursing duties include collection of medicines from the pharmacy and serving of meals. The following are some of the quotes from participants:

> "Sometimes we have got shortages of porters, some porters are sick or having problems and we will be working with two porters for the whole casualty, it becomes a backlog of patients to go to X-ray for scan and to the wards." (Participant 13)

And:

> "When the cleaners are absent, we ask cleaners from other wards to clean for us, but we have to serve meals to the patients. Is not a problem for me because we should give food to our patients before giving medication, but it really affect me, because the quality of nursing care goes down ,you just try to give medication because other work you can't attend to, due to short-staff" (Participant 7)

And:

> "Manpower is an issue in our unit, there are no clerks, so our statistics is very wrong. Sometimes we are even forced to do clerical work so that we can have statistics, especially for patients who are going out of the unit." (Participant 12)

4.4.3 Theme 3: Participants mentioned positive experiences on dealing with shortage of resources

In this study, participants highlighted the coping mechanisms they use in their daily living regarding shortage of resources. This theme produces two categories namely: Participants reported strong motivation for dealing with shortage of resources and support from management.

4.4.3.1 Category 3.1: Participants reported strong motivation for dealing with shortage of resources.

Strong motivation implies that even if there is shortage of supplies, nurses are willing to work for good patient outcomes. This category yielded two subcategories: nurses extending working periods and stretching and nurses improvise.

4.4.3.1.1 Subcategory 3.1.1: Nurses extending working periods and streching

This study revealed that nurses and some managers worked extra hours to mitigate the shortage of human resource and nurses stretching by multi tasking to cover the work load. The evidence indicated by two partcipants is as follows:

> "Sometimes, if there is a lot of patients and we are four on duty, we don't ask the management to give us people because, our Operational Manager OPM né…! she

will sit-up from 3 to 7 o'clock (meaning OPM will work overtime from 15:00-19:00) and nurses will also stretch by multi tasking to cover the work load". (Participant 1 and Participant 12).

4.4.3.1.2 Subcategory 3.1.2: Nurses improvise

Participants reported how they improvise on the shortage of dressing packs by using crepe bandages; they cut it into small pieces to replace the gauze. This system does not help much because the crepe bandage also gets depleted. The quote below confirms this:

> "Sometimes in the unit we do have crepe bandages, we augment the gauze with crepe bandage during the dressing. We cut the crepe bandage to make the gauze. Sometimes we don't have the crepe bandages because they are out of stock, then when the ordering list comes back, some of the items are out of stock, so we have to ask from the wards because CSSD have nothing." (Participant 7)

4.4.3.2 Category 3.2: Support from management

This study established that managers support nurses amidst shortage of resources. This category yielded one subcategory, supportive supervision.

4.4.3.2.1 Subcategory 3.2.1: Supportive supervision

Participants were provided with counselling to deal with the aftermath related to shortage of resources as described below:

> "After the incident of losing two patients because of lack of stretchers, psychotherapy was arranged for the staff. We talked about it in the assembly, amongst ourselves as nurses in the unit. We had meetings with the matron and doctors in the unit to address this issue. We were reassured and told that as soon as the government allocate enough money and allow us to hire more staff, the matter will be solved. Everything will go back to normal, but it takes a long time. They did reassure us, and we end up being happy for a short period." (Participant 16)

4.5 SUMMARY

Full presentation and explanation of the research outcome concerning experiences of PNs on insufficient resources in a tertiary hospital was elaborated in this chapter. Data was scrutinised following qualitative Tesch's method. Themes, categories and subcategories that arose from the data were outlined in Table 4.2. The meaning of subcategories was supported with quotations from participants. Chapter 5 present discussions of findings, and conclusion.

CHAPTER 5

DISCUSSIONS OF FINDINGS, LIMITATIONS, RECOMMENDATIONS AND CONCLUSION

5.1 INTRODUCTION

Chapter 5 presents the study purpose, objectives, research question, summary, interpretation of results, recommendations, and conclusions. A literature review was executed to audit the findings by providing a point of reference for relating and conflicting with relevant information in other studies.

5.2 PURPOSE

This study aimed to explore and describe experiences of professional nurses regarding shortage of resources in a tertiary hospital in Tshwane District and how they cope with the provision of patient care.

5.2.1 Research question

The questions were:

- What are the experiences of PNs regarding shortage of resources in a tertiary hospital in the Tshwane District?
- What coping mechanisms do PNs apply to address the challeges of shortage of resources?

5.3 RESEARCH DESIGN AND METHOD

The research plan developed were qualitative, non-experimental, explorative, and descriptive, based on the phenomenological interpretive approach. Diverse rmethods and techniques used to examine the research problem were population, sample, sampling technique, sample size, data collection and analysis. Face-to-face interviews were

utilised on 16 participants who answered the grand tour question. The researcher conducted the interviews that lasted for 25-40 minutes on average.

5.4 SUMMARY AND INTERPRETATION OF RESULTS

The summary and interpretation of results are drawn from findings to address the study purpose in terms of identified questions. The study results discovered that some members had negative experiences regarding shortage of human and non-human resources. Themes, categories and subcategories that arose from the learning were summarised; results were interpreted using relevant literature to the study purpose.

5.4.1 Participants reported experiences on dial lack of material resources

Lack on shortage of material resource is the first theme that emerged from the study and was raised by all members during the interviews. According to Yonder-Wise (2015:57), availability of material resources is needed in the working environment to promote and enable nurses, doctors, pharmacists and other health care workers to function and promote good health care delivery. Mammbona and Mavhandu-Mudzusi (2019:143) describe material resources as furniture, cleaning materials, pharmaceutical supplies and protective clothing such as masks, gowns and gloves.

5.4.1.1 Professional nurses expressed experiences on shortage of equipment

The category shortage of equipment emerged from the theme and the following subcategories were linked to it: experiences of delayed time for nursing care, experiences of inadequate infrastructure and experiences of shortage of linen.

5.4.1.1.1 Delayed time for nursing care

Outcome from the research indicate that scarcity of equipment forced participants to borrow from other wards, which was reported by PNs as a negative experience of time-consuming and causing conflict among staff. This led to delaying the time of nursing care and causes inconvenience for both the patient and health care providers. Mokoena (2017:54) concurs that shortage of equipment delays a patient's diagnosis and care. Therefore, the study revealed that lack of equipment led to compromised patient care. Majola (2013:24) supports the findings and alludes that shortage of equipment affects

health care workers and nurses negatively. Furthermore, time and attention end up being directed towards challenges caused by the shortage. However, borrowing from other units contribute to more workload. Participants expressed their frustration when patients' conditions deteriorated as the nurses and doctors could not react to changes adequately due to lack of equipment. This statement is supported by Matinhure, Chimbari and Mapunda (2018:204) who stipulate that lack of resuscitation equipment in the obstetric emergency unit in Tanzania, contributes to delay in accessing lifesaving care and treatment for women in labour. Findings from this study reply the question" what are the experiences of PNs on shortage of resources?". It delays patient diagnosis and results in PNs experiencing stress and providing compromised nursing care.

5.4.1.1.2 Inadequate infrastructure

According to Elioda (2015:75), infrastructure comprises of buildings, medical and non-medical equipment, furniture, ambulances, cars and communication equipment required for health service delivery. Participants in this study outlined that the hospital under study is unable to cope with an increased growth of the population that it is catering for. Other participants mentioned that geographical location of the population had extended extensively from when it was established, yet the infrastructure remained the same, hence overcrowding is experienced. Mayosi and Benatar (2014:1344) agree with the research findings and indicate that a persistent growing population because of refugees is a challenge that aggravates the lack of resources in government sector. Bad infrastructural problems in hospitals were identified in Kenya and Ethiopia where limited rooms, overcrowding and old, dilapidated buildings were present with a lack of budget to renovate them (WHO 2017:27; Khamis & Njau 2016:5). This results in an inability to accommodate an increased number of patients. Shiferaw (2017:243) determined that inadequate beds and labour rooms in Kenya, led to the situation where women in the latent phase of labour were sent to progress at home. In this regard, women and their unborn babies were at risk of complications.

A study conducted in China revealed that infrastructure was a problem, hence some units were modified to enhance isolation and social distancing for coronavirus cases (Liu, Luo, Haase, Guo, Wang, Liu, Xia, Liu, Yang & Yang 2020:4). In addition, SA adopted the idea, by converting some institutions and units in some hospitals into quarantine or isolation health services to accommodate more patients with Covid-19. The aim of restructuring

was to prevent overcrowding and to adhere to Covid-19 national infection control guidelines of maintaining 1,5-2m social distancing (NDoH 2020:5) The guidelines stipulate that the environment must be cleaned three times a day because the human coronavirus can remain on a surface area 9 days (NDoH 2020:17).

5.4.1.1.3 Shortage of linen

Another scarcity of material resources that was raised in the current study was linen. Most members perceive shortage of linen as a serious challenge. In this study, outsourcing of linen from the private provider who could not deliver, was the cause for the shortage. An aggravating factor was when participants reported that some babies were sleeping on bare mattresses in children's units. In this aspect, patients' relatives had no choice, but to bring blankets and pillows from home. Similarly, Thopola and Lukheleni (2019:5) reported that women in labour were delivering on a plastic in one of the SA government hospitals, which exposed the mother and baby to infection. Drayi (2019:142) indicated that in Ghana, some of the patients' bed linen were not changed for 24 hours due to shortage. This is in contrast with the National Core Standard infection control domain that highlights the importance of a clean environment to prevent infection (South Africa 2011a:23). Furthermore, the Nightingale theory indicates that clean linen and environment are important for healing purposes (Jooste 2018:18). The above risk can be avoided by creating and sticking to infection control checklist as stipulated by Schneider and Leventer (2020:4). The checklist may be done every day or month and continue per annum as a standard for ethical care service (Schneider & Leventer 2020 4). Therefore, the study utcomes in conjunction with reviewed literature are evidence that shortage of linen, beds and mattresses result in compromised nursing care.

5.4.1.1.4 Shortage of consumables

Consumables are equipment such as dressing packs, water, hand soap, gloves, masks and sanitisers (Dramowski, Velaphi, Reubenson, Bekker, Perovic, Finlayson, Duse, Rhoda & Govender 2020:362). Insufficiency of dressing packs led to a situation where nurses have to compromise by using crepe bandage to augment the gauze. Patients' wounds were not dressed every day as required, thus delaying wound healing and promoting infection. The study findings are congruent to those of Mammbona and Mavhandu-Mudzusi (2019:142) and Ndou (2017:7) who also identified a lack of PPE such

as gloves and masks, which put PNs at risk of contracting infectious diseases. In support, Lamola (2017:42) revealed that patients had to purchase dressing material at the pharmacy. According to Liu et al (2020:5), adequate PPE is needed to defend health personnel from contracting the infection as well as preventing them from infecting the patients. It is of great concern that in this era of infectious diseases such HIV/AIDS and Covid-19, nurses still experience shortage of PPE such as gloves and masks.

5.4.1.2 Participants experienced shortage of medical supplies

AII participants in the study raised their concerns over the shortage of medical supplies. In this context, medical supplies include all equipment such as oxygen, respirators, masks for patients, N95 masks and ventilators. This was raised by the WHO (2020:8) during the current pandemic of Covid-19 that insufficient of medical supplies is problematic world-wide , especially respirators, medical masks, ventilators and face shields. Studies indicate that SSA countries and SA, experience serious shortages of medical supplies and have weak health systems (Alegbeleye & Mohammed 2020:106). Khamis and Njau (2016:3) indicate that shortage of medical supplies in Tanzania was due to government delays in paying the central medical stores department on time, resulting in delayed stock delivery. Mazibuku (2017:88) highlights that shortage of medical supplies impacts negatively on patient care delivery. In support of this category, nurses experienced unavailability of medicines and patients' complaints.

5.4.1.2.1 Unavailabilty of medicines

Participants reported that unavailability of medicine leads to a situation where patients at times get incorrect doses or do not get the medication on time due to shortage of stock at the pharmacy. Mokgoko (2013:68) and Nevhutalu (2016:164), support the statement and mentioned that some outpatients do not obtain prescribed medication on time. Additionally, Hodes, Price, Bungane, Toska and Cluver (2017:738) argue that this practice, might affect chronic patients by delaying healing and promoting drug resistance. Lack of drugs affected the Emergency Obstetric Care (EmOC) negatively, where oxytocin injections were not issued to the maternity unit because of shortage at the pharmacy (Mkoka, Goicolea, Kiwara, Mwangu & Hurtig 2014:5). These contribute to the mismanagement of critical conditions such as post-partum haemorrhage (PPH) in an

emergency. Such experiences affected PNs negatively because it causes maleficence in patients, which is against ethical principles in nursing (Muller 2009:62).

According to Zuma and Modiba (2019:1537), absence of consistent outline for the delivery of medicines, contributes to the shortage. Lyengar et al (2016:7) point out that shortage of medication may be due to manufacturing issues and poor medicine stock management. Participants indicated that unavailability of medicine affects both the nurses and patients negatively. Thus, leading to compromised patient care, non-adherence to treatment and noncompliance to guidelines and protocols. At the end, recovery and healing are delayed leading to prolonged hospitalisation.

5.4.1.2.2 High rates of patients' complaints

The Ombudsman Western and Australia (2017:1), defines a complaint as a statement of unhappiness about an organisation, associated with its work performance or staff, where an answer is expected. Number of complaints from patients and relatives regarding shortage of medical supplies, medication and other consumables were reported during interviews. Patients' complaints could be due to poor nursing care and inadequate number of nurses. Mkoka et al (2014:6) highlight that, shortage of drugs, creates a lack of trust between health care worker and clients. In addition, unavailability of medication in the health services, led to a situation where the community perceive that the health care providers are taking this medication and selling it for their own benefits. According to Malatji et al (2017:329), allegations from patients and relatives are a concern; hence it is important to ascertain the reasons behind it. Sehume (2016:167) argues that some patient's complaints are perceived as unappreciative and unreasonable, especially when it leads to a situation where family members abuse nurses verbally. Therefore, there should be a policy that protects nurses in this regard. Some allegations may contribute to work- related stress and burnout in health workers.

5.4.1.3 Participants expresses negative effect on lack of material resources for patient care

The study determined that scarcity of nurses and other resources, resulted in a negative effect on patient care. An incident of a patient who had foetal heart on arrival at the hospital but ended up with Intra Uterine Foetal Death (IUFD) while sitting on the bench is

a good example of the effect of resource shortage. This led to compromised nursing care with negative effects such as death. Similarly, Atakro et al (2016:30) point out that lack of equipment, beds, inadequate space due to overcrowding in the emergency room result in the death of patients due to poor quality care. Manyazewal and Matlakala (2017:7); Khunou and Davhana-Maselesele (2016:8), alluded that job dissatisfaction led to work overload, which resulted in a negative effect on patient care. According to Manyazewal and Matlakala (2017:7), work overload leads to adverse events on patient safety, falling, nosocomial infection and finally a patient ‘s death. Additionally, Pillay (2017:59) indicates that some individuals were saddened about the type of health care provided in the public hospital. Other patients complained about long waiting hours before being attended to. During the Presidential Health Summit, it was reported that among SSA countries SA has high death rates due to poor quality patient care (South Africa 2018:41). The above-mentioned factors also contribute to increased length of hospital stay.

5.4.1.3.1 Increase length of hospital stays

Participants pointed out that shortage of resources contribute to lengthy patient stay in hospital. Report from this study highlighted that small procedures which were supposed to be performed in the wards, were done in theatre due to lack of resources. These practices reveal poor unit management and a waste of limited resources for taking a minor case to theatre. Khan, Baig and Mehboob (2017:478) indicate that patients were found to be vulnerable to nosocomial infections due to shortage of medicines. Pillay (2017:8) concurs and states that some patients stay longer because of hospital-acquired infections from compromised patient care. According to Farooq, Ghaffar and Afzal (2016:65), cancellation of surgery is another cause of increased length of hospital stays. This results in overcrowding and lack of beds for new admissions. Muya (2018:48) and Washeya (2018:42) concur with the findings that shortage of equipment, drugs and poor infrastructure results in a situation where doctors are compelled to reschedule patient’s operations. Thus, leading to overcrowding, poor patient care and an adverse hospital budget.

5.4.1.3.2 Negative patient outcomes

Participants reported that a few PNs have to care for a high volume of patients which results in compromised nursing care and negative patient outcomes. This yield to

negative patient outcomes.) According to Gebrehiwot et al (2014:14), in Ethiopia, maternal deaths are reported annually due to medical complications caused by shortage of skilled midwives and neonatal care equipment.These findings were supported by Thwala, Blaauw and Ssengooba (2019:5) in the study conducted in one of the emergency obstetric care units in SA. Health care workers were identified as being overwhelmed by workload to the extent of being compelled to attend to patients according to priority of emergency. This resulted in women in labour who were sometimes left unattended by doctors and midwives because of emergencies. Malatji et al (2017:328), admits and highlights that staff shortage is a concern that affects health care delivery negatively which leads to dissatisfaction in patient outcomes.

5.4.1.3.3 Risk of nosocomial infection

Nosocomial infection is an infection which attack a patient under medical care in a health facility, the infection might be absent on admission (Khan et al 2017:478). Furthermore, infection can occur after discharge. In this study, participants augment shortage of beds, by alternating patients on beds and those on the chair two hourly to observe the foetal heart. Shiferaw (2017:154) concur with the findings and state that in Ethiopia, mothers were advised to sleep on delivery sofas post labour due to shortage of beds. Matinhure et al (2018:204) reports that poor sanitation, water supply and unhygienic health environment in Tanzania were the causes of nosocomial infection thus delaying wound healing of Caesarean section patients. According to Tembo (2019:6) there is a possibility on health care workers to contract nosocomial infection. The reason being that they have direct contact with a person who has not yet been diagnosed and not yet on treatment. The other risk might be occupational exposure to TB sufferers due to poor infection control. The above discussions affirmed that shortage of non-human resource is a challenge that exposes patients to nosocomial infection.

5.4.2 Participants reported experiences on shortage of nurses and support staff

In this theme participants reported experiences on inadequate PNs and other non-nursing staff followed by two categories: participants reported shortage of nursing staff and experienced effects on shortage of support staff. In this study, human resource includes nurses, doctors, and other health care personnel (Nkoane 2015:41). Rispel and Bruce (2015:118) reported that, SA faces a nursing crisis that include staff shortage, decreased

interest in the profession and absence of compassion amongst nursing personnel. Findings in this study indicate an acute shortage of PNs.

5.4.2.1 Participants reported lack of nursing personnel

Participants acknowledged that scarcity of nurses is worsened by frozen posts, and failure to replace nurses who have resigned or retired. This results in increased workload to those left behind. Amakali (2013:72) and Chikudu (2016:60) point out that the nursing profession is currently suffering staff shortage globally, due to staff turnover caused by low salary and poor working conditions. While Huber (2018:352) mentioned that shortage of nurses has been highlighted and contributes to adverse effects, including decrease access to patient care and job dissatisfaction. This challenge affects the nurses emotionally and leads to burnout syndrome and frustration. Participants elaborated that emotional strain could manifest in the form of irritability, agitation, frustration and burnout.

5.4.2.1.1 burnout syndrome and frustration from nurses

Participants reported that nurses could not cope with PN's demands and activities of the unit, as they work under extreme pressure to complete the allocated task for the day. This resulted in exhaustion and burnout. According to Khamis' and Njau (2016:4), shortage of PNs and high consultations of patients at outpatient departments, increase workload to the extent that work of three clinicians ends up being done by one person. Khamisa et al (2017:256) indicate that work stress related to shortage of human resources results in increased workload which affect job satisfaction. Malatji et al (2017:330) concur with the findings and highlight that staff shortage leads to negative emotional experience for nurses in the workplace. This is articulated as stress, anger, lack of self-confidence, depression, burnout, frustration and emotional exhaustion. This statement is supported by (Washeya 2018:19).

5.4.2.1.2 Increased workload related to supervision of novice professional nurses

Participants reported that the employer has hired community service nurses to work as experienced PNs even if they still require supervision. Several studies from South Africa, have disclosed that new nurses require constant and consistent supervision from the experienced PNs (Khunou 2018:237; Nkoane 2015:52; Mqokozo 2013:52). Findings from

these studies, reveal that specialised and high care patients were delegated to this inexperienced and lower category nurses who were not supervised due to shortage of PNs. In this regard, supervision could be challenging due to the shortage of nurses. Khunou (2018:242) points out that most nurse managers perceive mentoring and supervision as taking up most of their time. Presumably, individualised supervision and guidance would be difficult in an overcrowded ward with few nurses.

Studies indicate that there are challenges in mentoring community nurse practitioners (CNPs). This is affirmed by Aqila, Rabi' atule, Annamma, Teh Halimaton and Hamidah (2019:17). Govender, Brysiewicz and Bhengu (2017:19) highlights that one CNP was overwhelmed by a huge responsibility allocated to her with regard to making decisions and solving problems without supervision, due to shortage of PNs. This incident left the CNP frustrated. Furthermore, Agila et al (2019:18) argue that allocating CNPs in the health field after a short orientation, is like setting them up for failure.

5.4.2.1.3 Impact on training of nurses

In this study, participants mentioned that they were unable to attend workshops and in-service training because of shortage in human resources. Another participant stated that, if one has to go for in-service education, there will be nobody to look after their patients. Newly qualified PNs allocated in the Critical Care Unit (CCU), reported lack of knowledge and mentoring, hence they end up giving compromised nursing care. According to Booyens and Bezuidenhout (2016:267), professional improvement in the workplace should be created to update members with knowledge and to promote good nursing care. Lack of career development opportunities for the staff, especially in CCU, as mentioned by one participant, may cause burnout, stress in the workplace and finally staff turnover. Yang et al (2017:9) agree with the statement and state that lack of career guidance and development from the employer was one of the causes of staff turnover in China. Makua (2016:256) supports these research findings and indicate that shortage of resources leads to difficulty in providing in-service education and mentoring of newly qualified PNs.

According to Aqila et al (2019:29), the unpreparedness of a newly graduate nurse without in-service education may have immense impact on patient safety, because nurses experience stress during a transitioning period. Hlosana-Lunyawo and Yako (2013:9), reveal that, new PNs allocated to Amathole Primary Health Care Clinic in the Eastern

Cape were not supervised nor given a job description to guide them. Hence, they experienced non-adherence to providing job description. These new PNs condemned this action, felt that having a job description could have promoted smooth running of activities thus prevent shift blame.

5.4.2.1.4 High rate of absenteeism

Absenteeism was reported as one of the serious problems in this study and is a subcategory under participants reported shortage of nursing staff. Members reported insufficient staff and increased workload as contributory factors to absenteeism. Furthermore, participants verbalised that failure to cope with the workload, makes them irritable and tired. Thus, they absent themselves in order to rest. This is a concern because, absenteeism exacerbates shortage of nurses. A high rate of absenteeism leads to conflict in the workplace due to work-related stress and pressure from shortage of resources. Patient care becomes compromised because of an influx of patients. Senior PNs are the most affected by the absenteeism rate as they supervise junior ones. Hence, they end up being fatigued due to an increased workload. This, affects team cohesion and morale, leading to a repeated cycle of staff turnover.

Haskins, Phakathi, Grant and Harwood (2016:36) concur by indicating that absenteeism was caused by failure to withstand the workload and insufficient resources Maake (2015:80) highlights that excessive use of power by some nurse managers, results in psychological stress and absenteeism. Nkoane (2015:42) confirms that absenteeism emanates from senior staff members where community service nurses are used to replace absent personnel. In addition, Mammbona and Mavhandu-Mudzusi (2019:142) argue that scarcity of nurses is aggravated by high absenteeism rates of nursing personnel when they falsify being sick because of tiredness.

5.4.2.1.5 Unappreciated overwork

Some participants in this study experienced lack of appreciation for efforts of overwork from some management, no matter how hard nurses worked. The only time when a supervisor comes is when something has happened. The supervisor will blame nurses without finding out the cause of the incident. In any situation where employees feel that they are not valued, they may underperform. This sentiment is supported by Amakali

(2013:60) who states that health workers in Namibia resigned from government sector following lack of respect and appreciation by management.

5.4.2.1.6 Inadequate documentation

In this study, shortage of staff was reported. Unfortunately, nurses mask the problem by recording activities that were not done. Sometimes a report indicates that the patient was not progressed according to the national maternal guidelines, but records reflect as if it was done. In other instances, a patient in the active phase of labour would be waiting on the bench unattended, yet the patient's progress records would be updated with fictitious observations. One participant stated that nurses have a big workload to the extent that recording becomes difficult. This parallels with Mutshatshi, Mothiba, Mamogobo and Mbombi (2018:4) state that, participants reported that too much workload takes away time for recording.

Poor adherence to recording discipline practice was highlighted by Matlala (2017:54) who states that midwives are exposed to the risk of litigation which could results from failure to record while waiting for doctors to decide about a patient's condition. In addition, Shihundla, Lebese and Maputle (2016:5) indicate that participants raised a point of illegible information due to being too hurried to write properly because of the workload. These factors reflect the extent to which nurses are overworked. But unfortunately, if nurses mask the real situation it will delay management intervention to alleviate the workload pressure.

5.4.2.1.7 Fear of litigation

The current study revealed that participants are working under difficult conditions of severe shortage of resources, hence they take responsibilities beyond their capabilities due to fear of litigation. During the Presidential Health Summit, high impact of medico-legal malpractice and medical legal action in state hospitals were acknowledged (South Africa 2018:47). Fear of litigation could be related to ethical dilemma as nurses have to compromise because of shortage in resources.

Furthermore, doctors are faced with serious challenges daily to prioritise patients' admission in ICU and those going to theatre depending on the availability of resources (Bateman 2016:1063). However, medical litigation history in SA illustrates that there is little or no defence if a health care worker did not follow protocols (Bateman 2016:1063). Hence professionals are cautioned about the key role of medical records in health litigation. Nurses are taught during training to write their notes clearly and accurately, despite the shortage they are experiencing. This is essential from a legal aspect because the task that is not recorded is not considered in nursing (Mutshatshi et al 2018:4). In addition, failure to keep a proper patient record is an offence in nursing. According to Pezaro, Clyne, Turner, Fulton and Gereda (2015:2), midwives could be at risk of work-related psychological stress, because they are independent practitioners working in an area of high litigation.

5.4.2.2 Participants experienced effects on shortage of support staff

Shortage of support staff was linked to performance of non-nursing duties.

5.4.2.2.1 Performing non-nursing duties

In this study, nurses were reported to be doing non-nursing responsibility to cover shortage of support staff. Performance of non-nursing duty was cited by Manyisa and Van Asvagen (2017:36) indicating that doctors and nurses in Zimbabwe and Cameroon were reportedly performing unskilled jobs such as cleaning of floors due to shortage of support staff. Nkoane (2015:41) reveals that a CSN was upset after being sent to gather laboratory results of patients due to absenteeism of porters. In this regard, the CSN felt that executing non-nursing duties negates them the chance to concentrate on their objectives in those units. Further, the performance of non-nursing duties, delays quality health care delivery.

5.4.3 Participants mentioned positive experiences of dealing with shortage of resources

This is the third theme that emerged from the study and yielded two categories which are: Participants reported strong motivation for dealing with shortage of resources and reported support from management. According to Uys and Middleton (2014:196), coping

is described as the action of struggling to overcome situational challenges. A healthy coping mechanism and support system is needed in the workplace to manage resource shortage. This study identified several coping mechanisms that professional nurses applied to address the challenges of the shortage of resources.

5.4.3.1 Participants reported strong motivation for dealing with shortage of resources

The study findings revealed that even if PNs are working under stressful conditions, some are motivated to do good. Luhalima et al (2014:474), indicate that despite of all these challenges of resources shortage, some nurses are inspired to render excellent health delivery. Extended working periods and over stretching were mentioned by some participants as strategies to cope with the shortage. The second subcategory mentioned by the participants was nurses improvise.

5.4.3.1.1 Extending working periods and stretching

In this study, participants reported that they sometimes work long working hours in order to cover the work allocated for the day. This strategy has a positive effect and a negative effect. A positive effect for the organisation and negative effect is on the nurse's site, such as exhaustion and ill health. In support Sehume (2016:39) argues that long working hours and insufficient rest, affect wellbeing of workers especially female worker. Additionally, Manyisa and Van Asvagen (2017:35) highlight breast cancer as the effects of long working hours for females, due to exposure to light during the night. Furthermore, medical errors and injury at work results due to fatigue. Therefore, this method cannot be regarded as an effective coping mechanism. One advantage of long working hours is to correct shortage of human resource, thus improve quality patient care. According to Els (2017:96), it would be better if performed by people working in the same unit or hospital to limit medical errors. Another advantage is that workload is complemented as these people are familiar to the working environment. Amakali (2013:68) supports the statement by indicating that overtime hours cover difficult working conditions of staff shortages.

5.4.3.1.2 Nurses improvise

In this study, participants highlighted how nurses improvised when there is a shortage of dressing packs by cutting crepe bandage into small pieces to replace the gauze. Consistently, Thwala et al (2019:5) and Spence, Du Preez and Minnie (2018:3) report about work with a limited staff, leading to the extent where midwives would sometimes leave the unit unattended to receive a new born baby in theatre. Comparable discoveries were stated in a research led by Spence et al (2018:3) when midwife found that the patient had delivered when she came back from theatre. This is a serious adverse event that put midwives at risk. Mutshatshi et al (2018:5) reveal lack of stationary charts for patient observations and written patient progress notes. Nurses have to improvise borrow or buy paper to photocopy charts in order to record a patient's observations and write progress notes. All this is time-consuming for the nurses. Mammbona and Mavhandu-Mudzusi (2019:142), report about the improvising done by nurses looking after HIV/AIDS patients without using PPE because of shortages. They asked for gloves from theatre and use them only during bed bath. This practice is dangerous because it exposes nurses to dangerous diseases. According to literature and feed back from the study, extended working period and stretching is not a good coping mechanism that PNs can use to address the challenges of resource shortage because it led to fatigue and abseeintism.

5.4.3.2 Support from management

There are three levels of management in any organisation, namely executive, middle and operational or ground level (Jooste 2018:94). In this regard, PNs need support from all levels of management, including the supervisor in order to cope with the challenges of resource shortage. The two subcategories identified in the study were linked to this category. Participants in this study raised a positive support from their supervisors, during the time of crises. In one unit, the OPM was mentioned by one participant for working extra hours to cover the shortage. Pillay (2017:41) indicates that shortage of nurses could be improved by having regular staff meetings with the supervisor, to identify nurses' problems.

5.4.3.2.1 Supportive supervision

Participants in this study reported positive experiences whereby they revert effective supportive supervision from their supervisors after experiencing an emotional incidence of losing two patients in one day due to lack of resources. The issue was discussed with their supervisors and managers as a way of clarifying issues related to shortage of resources. Supportive supervision is described by Serapelwame (2019: 95) as a person who provide mentoring, give feedback, resolve problems, allocate resources promote team work and has a two-way communication. Alshutwi (2016:45) state that, support from supervisors is needed in the workplace for advice purpose when nurses need clarity about certain issues. Supervisors should be encouraged to improve their supportive roles and strengthen supervision since they are representing the organisation. This will reduce many adverse events in the workplace and will improve quality nursing care. Mametja (2013:75) recommends that PNs could be motivated if supervisors mentally boost them through counselling programmes to inspire them to promote good patient care. Serapelwame (2019:106) state that a supportive supervisor must be able to detect individual difficulties in advance. In addition, supervisory visits ought to contribute in the identification and resolving such glitches.

5.5 RECOMMENDATIONS

Recommendations are grounded on the results of the investigation aimed for further improvements on the study. The following were recommended:

5.5.1 Working environment

Working environment is described as…, experiences of PNs on fulfilling their roles and responsibilities in that area. The NDoH as a relevant stake holder for policy making and budget allocation should allocate enough funds to correct the following identified challenges:

- Repair and replace broken equipment, purchase assets of good quality that should be serviced regularly.
- Equipment needs to be audited at least monthly and a daily checklist used to control stock in the units for both day and night shift.

- Medication must be properly controlled in the pharmacy and in units.
- Good dissemination of information between suppliers, depots, and health facilities for stock control to prevent shortages at the point of delivery.

5.5.2 Human resource policies

- Hospital administrators to make sure that policies, job descriptions and guidelines are developed and implemented in the workplace.
- Appropriate recruitment and retention policies must be implemented by the human resources department to ensure that vacant posts are filled timeously to correct the shortage and reduce high staff turnover and workload.
- Hospital managers to be included during exit interviews for the sake of detecting the rationale behind resignations. Such action may assist in identifying factors that aggravate resignation rate, and plan for future measures of reducing resignation of staff.
- Staff members who are working hard ought to be acknowledged by management. This may be an incentive in the form of a certificate, award or remuneration.
- The use of the OSD Strategy ought to be applied fairly to all employees and PNs, especially the ones with speciality qualification as strategies to retain them in the workplace
- Nursing managers and supervisors should improve their supportive roles and strengthen supervision to reduce adverse events in the workplace and improve quality nursing care. Their support is important to reduce staff turnover.
- Employees with stress and burnout should be referred to a clinical psychologist or employee wellness programme for counselling.
- Debriefing programmes should be established in units such as labour wards, accident and emergency and intensive care units to provide psychological support to affected staff because findings in this study revealed high level of stress in those units.
- Human resource policies to be put in place to recruit and train caregivers who would render non-nursing duties in the units to reduce the workload of nurses.
- Sufficient support staff should be hired to prevent nurses performing non-nursing duties.

5.5.3 Training of nurses

Training and development play an important role in securing clinical skill and competence in the work environment. In this regard the following recommendations are made:

- *Career development is important in the workplace. Administrators should permit newly-qualified PNs to attend training and development to improve their skill.*
- *Formal and informal in-service education is needed in the working environment for professional development and growth.*
- *Mentoring to be encoparated in the syllabus of nursing management to empower managers with mentoring skills.*
- *It is recommended that newly qualified PNs should be mentored and guided for three months after completing community service practice so that they can have more confidence in the nursing field.*
- *There must be training and development program to* provide skill and guidance on how to deal with work overload, including shortage of material and human resources.
- Nurses to be educated about the appropriate coping mechanisms so that they are able to deal with pressure in the unit.

5.5.4 Recommendation for further research

In this study, a qualitative perspective that focused on a small sample was used. A further comprehensive study is recommended using a quantitative approach. The study can be steered on a greater scale which might comprise of additional staff members. This study can possibly serve as a foundation for further exploration as follows:

- Challenges faced by PNs regarding their roles and responsibility related to high workload experienced in the working environment.
- Perceptions of patients could be explored regarding to unavailability of medicine in health services.
- Experiences of nurses related to shortage of consumables and medical appliances in public hospitals throughout the Covid-19 epidemic.

5.5 LIMITATION OF THE STUDY

Qualitative design and purposive sampling are used in this study, thus limit the population representation. The conclusions cannot be generalised to other hospital since the study was limited to one hospital with small number of professional nurses. Aditionally, other members might not have easily revealed applicable data which might delay generality of outcomes.

5.6 CONTRIBUTIONS OF THE STUDY

Findings will benefit to a better thoughtfulness on the experiences of PNs concerning deficiency of resources in a tertiary hospital in the Tshwane District and how they cope with patient care delivery. This poses a challenge to health professionals, researchers, supervisors, and managers regarding the support needed. The scientist will communicate the outcomes and commendations to management and applicable shareholders of institutions. The results will be distributed as presentations at applicable coferences, seminers and in credited scientific journals.

5.7 CONCLUDING REMARKS

The study concluded that professional nurses work in an incredibly stressful and frustrating work environment with shortage of resources. It is evident that participants lack support from management clinical psychologists, as well as from colleagues, patients and relatives to assist them overcome difficulties experienced in the work environment. This study concludes that in-service education and mentoring of newly qualified PNs are required to promote excellent health care to minimise litigation against the NDoH. To conclude, the questions and purpose of the study were answered. The study has provided useful information regarding the researched topic. Finally, this study revealed that despite the challenges of the shortage of resources, PNs are still trying their utmost to render the expected health care service. The researcher highlighted that there is an urgent need to improve the current challenge of resource shortages if quality care is considered in this tertiary hospital.

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ANNEXURES

ANNEXURE A: ETHICAL CLEARENCE CERTIFICATE FROM UNIVERSITY OF SOUTH AFRICA

UNISA

RESEARCH ETHICS COMMITTEE: DEPARTMENT OF HEALTH STUDIES

REC-012714-039 (NHERC)

6 December 2017

Dear Makoasha Philistus Jiyane

Decision: Ethics Approval

HSHDC/801/2017
Makoasha Philistus Jiyane
Student No.:607-860-5
Supervisor: Prof LV Monarang
Qualification: D Litt et Phil
Joint Supervisor:

Name: Makoasha Philistus Jiyane

Proposal: Experiences of professional nurses on the shortage of resources in a tertiary hospital in Tshwane District

Qualification: **MPCHS94**

Thank you for the application for research ethics approval from the Research Ethics Committee: Department of Health Studies, for the above mentioned research. Final approval is granted from 6 December 2017 to 6 December 2019

The application was reviewed in compliance with the Unisa Policy on Research Ethics by the Research Ethics Committee: Department of Health Studies on. 6 December 2017

The proposed research may now commence with the proviso that:

1) *The researcher/s will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.*

2) *Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study, as well as changes in the methodology, should be communicated in writing to the Research Ethics Review Committee, Department of Health Studies. An amended application could be requested if there are substantial changes from the existing proposal, especially if those changes affect any of the study-related risks for the research participants.*

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone +27 12 429 3111 Facsimile +27 12 429 4150

3) *The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study.*

4) *[Stipulate any reporting requirements if applicable].*

Note:
The reference numbers [top middle and right corner of this communiqué] should be clearly indicated on all forms of communication [e.g. Webmail, E-mail messages, letters] with the intended research participants, as well as with the Research Ethics Committee: Department of Health Studies.

Kind regards,

Prof L. L. [illegible]

Prof JE Maritz
CHAIRPERSON
maritje@unisa.ac.za

Prof MM Molaki
ACADEMIC CHAIRPERSON
molekmm@unisa.ac.za

Prof A Phillips
DEAN COLLEGE OF HUMAN SCIENCES

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone +27 12 429 3111 Facsimile +27 12 429 4150

ANNEXURE B: PERMISSION LETTER TO DEPARTMENT OF HEALTH

Ga-Rankuwa Nursing College
Private Bag X830
Pretoria
0001
26 June 2017

Head of Department
Gauteng Health Department (Central Office)

Sir/Madam

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH STUDY

I, Makoasha Philistus Jiyane, a Master's degree student at University of South Africa (UNISA), herewith request permission to conduct a research study at Dr George Mukhari Academic Hospital. The Topic is Experiences of Professional Nurses on the Shortage of Resources in Tertiary Hospital Tshwane District. I strongly believe that the outcome of the study will assistance the facility, district and entire province. Please find the research proposal for your information and the research ethics approval from Research Ethics Committee of UNISA. Data will be obtained from professional nurses working at the selected units for the study who volunteered to participate. Correspondence may be done through the following contact details: The research will be supervised by Dr SH Khunou and can be contacted on the following number during office hours.

Telephone: 012 4296290 or **email:** khunosh@unisa.ac.za
Cell number: 0721425465 OR **email:** phillysjiyane @gmail.com

Kind regards

Jiyane MP (Researcher)

ANNEXURE C: APPROVAL FROM TSHWANE DISTRICT RESEARCH COMMITTEE

GAUTENG PROVINCE
REPUBLIC OF SOUTH AFRICA

Enquiries: Dr. Robert Oyedipe
Tel: +27 12 451 9000
E-mail: Robert.Oyedipe@gauteng.gov.za

TSHWANE RESEARCH COMMITTEE: CLEARANCE CERTIFICATE

MEETING: 12/2017
PROJECT NUMBER: 40/2018
NHRD REFERENCE NUMBER: GP_201803_057

TOPIC: Experiences of professional nurses on the shortage of resources in a tertiary hospital in Tshwane District

Principal investigator:	Makoasha Philistus Jiyane
Supervisor:	Prof LV Monareng
Facility:	Dr. George Mukhari Academic Hospital
Name of the Department:	UNISA

NB: THIS OFFICE REQUEST A FULL REPORT ON THE OUTCOME OF THE RESEARCH DONE AND

NOTE THAT RESUBMISSION OF THE PROTOCOL BY RESEARCHER(S) IS REQUIRED IF THERE IS DEPARTURE FROM THE PROTOCOL PROCEDURES AS APPROVED BY THE COMMITTEE.

DECISION OF THE COMMITTEE: APPROVED

.....
Dr. Robert Oyedipe
Acting Chairperson: Tshwane Research Committee

Date: 2018-05-21

.....
Mr. Pitsi Mothomone
Chief Director: Tshwane District Health

Date: 21-05-18

ANNEXURE D: APPROVAL FROM DR GEORGE MUKHARI ACADEMIC HOSPITAL

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

Dr. George Mukhari Academic Hospital

Office of the Director Clinical Services
Enquiries : Dr. C Holm
Tel : (012) 529 3691
Fax : (012) 560 0099
Email:Christene.Holm @gauteng.go.za
keitumetse.mongale@gauteng.gov.za

To Ms M.P Jiyane
Department of Health Studies
University of Pretoria
Cityof Tshwane
PO Box 392
Unisa
PRETORIA

Date : 11 May 2018

PERMISSION TO CONDUCT RESEARCH

The Dr. George Mukhari Academic Hospital hereby grants you permission to conduct research on "Experiences of professional nurses on the shortage of resources in a Tertiary hospital in Tshwane District" at Dr George Mukhari Academic Hospital

This permission is granted subject to the following conditions:

- ☑ That you obtain Ethical Clearance from the Human Research Ethics Committee of the relevant University
- ☑ That the Hospital incurs no cost in the course of your research
- ☑ That access to the staff and patients at the Dr George Mukhari Hospital will not interrupt the daily provision of services.
- ☑ That prior to conducting the research you will liaise with the supervisors of the relevant sections to introduce yourself (with this letter) and to make arrangements with them in a manner that is convenient to the sections.
- ☑ Formal written feedback on research outcomes must be given to the Director: Clinical Services
- ☑ Permission for publication of research must be obtained from the Chief Executive Officer

Yours sincerely

DR. C. HOLM
ACTING DIRECTOR CLINICAL SERVICES 11/5/18

ANNEXURE E: APPLICATION FOR SITE APPROVAL DR GEORGE MUKHARI ACADEMIC HOSPITAL CHIEF EXECUTIVE OFFICER

Ga-Rankuwa Nursing College
Private Bag X830
Pretoria
0001
26 June 2017

The Chief Executive Officer (CEO)
Dr George Mukhari Academic Hospital
Private Bag X422
Pretoria
0001

Dear Sir

APPLICATION FOR SITE APPROVAL TO CONDUCT A RESEARCH PROJECT

TITLE: EXPERIENCES OF PROFESSIONAL NURSES ON THE SHORTAGE OF RESOURCES IN A TERTIARY HOSPITAL IN TSHWANE DISTRICT

Researcher: MP Jiyane (MA Nursing Student)
Address: Ga-Rankuwa Nursing College, Private Bag X 830, Pretoria (0001)
Telephone numbers: (012) 5600585
Supervisor: Dr SH Khunou (email: khunosh@unisa.ac.za)
Chairperson of Ethics committee: Prof JM Mathibe-Neke (email: mathijm@unisa.ac.za)

I am an MA research student (6078605) registered with the University of South Africa, Department of Health Studies. The researcher is a registered nurse and is currently a lecturer at Ga-Rankuwa Nursing College. This letter serves as an application for approval to perform a study at this hospital. The aim of the research is to explore and describe the experiences of professional nurses regarding shortage of resources in a tertiary hospital in the Tshwane District and how they cope in the delivery health care. Research ethics approval has been obtained from the Research Ethics Committee of the Department of

Health Studies, Departmental Higher Degrees committee at UNISA. The participants are registered nurses working in selected wards at a public hospital. Data collection will be through unstructured individual in-depth interviews at a room designated for that purpose.

Thanks for your prompt consideration on this matter.

Yours faithfully

Makoasha Philistus Jiyane

Cc:

- The Medical Director in charge of Medical, Surgical, Paediatric, Accident and Emergency and Intensive Care units
- The Director of Nursing Services
- The Deputy Directors for nursing services in all the selected departments
- Managers-in of the selected units
- The Head of Research and Development unit

Researcher: MP Jiyane (MA Nursing Student)
Address: Ga-Rankuwa Nursing College, Private Bag X 830, Pretoria (0001)
Telephone number: (012) 5600585
E-mail address: phillysjiyane@gmail.com

Supervisor: Dr SH Khunou
E-mail address: khunosh@unisa.ac.za

Chairperson of Ethics Committee: Prof JM Mathibe-Neke
E-mail address: mathijm@unisa.ac.za

ANNEXURE F: APPLICATION FOR SITE APPROVAL DR GEORGE MUKHARI ACADEMIC HOSPITAL DIRECTOR NURSING

Ga-Rankuwa Nursing College
Private Bag X830
Pretoria
0001
30 November 2018

Acting Director Nursing Services
Nkosi LJ (Ms)
Dr George Mukhari Academic Hospital
Private Bag X422
Pretoria
0001

APPLICATION FOR SITE APPROVAL TO CONDUCT A RESEARCH PROJECT

TITLE: EXPERIENCES OF PROFESSIONAL NURSES ON THE SHORTAGE OF RESOURCES IN A TERTIARY HOSPITAL IN TSHWANE DISTRICT

I am an MA research student (6078605) registered with the University of South Africa, Department of Health Studies. The researcher is a registered nurse and is currently a lecturer at Ga-Rankuwa Nursing College. This letter serves as an application to perform a study at this hospital. The goal of the study is to explore and describe the experiences of professional nurses regarding shortage of resources in a tertiary hospital in Tshwane District and how they cope in health care delivery. The research ethics approval has been obtained from the Research Ethics Committee of the Department of Health Studies, Departmental Higher Degrees Committee at UNISA.

The permission has already been granted from the Office of the Director Clinical Service Dr Holm from Dr George Mukhari Academic Hospital and from Tshwane Research Committee, Clearance Certificate has been granted. The participants will be professional nurses (PNs) working in selected units having two years or more experience accessible, eligible and who volunteer to participate.

Participants who met the inclusion criteria will be PNs who:

- Are between 25 to 65 years old
- Both males and females
- Who provided unwritten or written agreement to partake.

Data collection will be through unstructured individual in-depth interviews at a room designated for that purpose.

Thanks for your prompt consideration on this matter.

Yours faithfully

Makoasha Philistus Jiyane

Cc:

- The Medical Director in charge of Medical, Surgical, Paediatric, Accident and Emergency and Intensive Care units
- Managers of the selected units
- The Head of Research and Development unit

Researcher: MP Jiyane (MA Nursing Student)
Address: Ga-Rankuwa Nursing College, Private Bag X 830, Pretoria (0001)
Telephone number: (012) 5600585
E-mail address: phillysjiyane@gmail.com

Supervisor: Dr SH Khunou
E-mail address: khunosh@unisa.ac.za

Chairperson of Ethics Committee: Prof JM Mathibe-Neke
E-mail address: mathijm@unisa.ac.za

ANNEXURE G: INFORMED CONSENT FOR PATIENT INTERVIEW

RESEARCH TITLE: EXPERIENCES OF PROFESSIONAL NURSES ON THE SHORTAGE OF RESOURCES IN A TERTIARY HOSPITAL IN TSHWANE DISTRICT

Institution: UNIVERSITY OF SOUTH AFRICA (UNISA)
Department of Health Studies

Dear Participant

As an interviewee, an information about your experiences regarding shortage of human and non-human resources in your workplace is asked. One is requested to complete a biographical tool and be interviewed about the study phenomenon. The goal of this study is to explore and describe the experiences of professional nurses regarding shortage of resources in a tertiary hospital in Tshwane District and how they cope in health care delivery.

This letter serves to ask your permission to participate in the research.

Understand what is required before you decide to participate in the study, by reading the information leaflet attached. All interviews will be audio recorded and field notes taken. Based on this information your agreement to audio record the interview is requested.

There is no reward for your involvement in the study except refreshments for tea or lunch as will be applicable.

I ……. understood that I am being asked to partake in the study as requested above. I have been made aware that my involvement in this study is totally voluntary and that I may pull out from this study at any time without penalty.

The study's purpose, objectives and benefits has been clarified. I have read and understand this consent form.

My enquiries have been replied ,I agree to participate in the abovementioned study.

_____	_____
Signature of Respondent	**Date**
_____	_____
Signature of Witness	**Date**
_____	_____
Signature of Researcher	**Date**

If further clarification is needed, the following persons can be consulted.

Researcher: MP Jiyane (MA Nursing Student)
Address: Ga-Rankuwa Nursing College, Private Bag X 830, Pretoria (0001)
Telephone number: (012) 5600585
E-mail address: phillysjiyane@gmail.com

Supervisor: Dr SH Khunou
E-mail address: khunosh@unisa.ac.za

Chairperson of Ethics Committee: Prof JM Mathibe-Neke
E-mail address: mathijm@unisa.ac.za

ANNEXURE H: PARTICIPATION INFORMATION LEAFLET

RESEARCH TITLE: EXPERIENCES OF PROFESSIONAL NURSES ON THE SHORTAGE OF RESOURCES IN A TERTIARY HOSPITAL IN TSHWANE DISTRICT

Name(s) and affiliation(s) of researcher(s):
Makoasha Philistus Jiyane, Ga-Rankuwa Nursing College, Pretoria, South Africa
Dr SH Khunou, University of South Africa

May you kindly participate in the research that we are carrying

Why the proposed research?

The goal of this learning is to explore and describe the experiences of professional nurses regarding shortage of resources in a tertiary hospital in Tshwane District and how they cope in health care delivery.

What will happen during the study?

I will have a conversation with you in simple English that you will understand and easy to respond to. Any answer is accepted using your own words. The duration for the interview will be 25-40 minutes. A second interview may be arranged if necessary, for clarification or validation of findings. The conversation will be about the things you have gone through since you have been working in the selected unit, experiencing shortage of resources and how you have coped on patient care delivery. May you kindly sign a consent form as to grant permission to take part in the study and have the conversation tape record.

Will anyone know what I told you?

The conversation will be recorded on audio- recorder and later written in print. Your name will not be recorded on the audio recorder or paper. A Pseudo name and number will be given to you during the conversation. The only people that will know about our conversation will be my supervisor, transcriber and myself. All information that I received from you will be locked and separated from the written information for five years after the study.

What are the possible gains and harm to you?

The study may or may not have any direct benefit to you at the moment, but the findings will be consolidated to offer a valuable explanation of the phenomena. Recommendations of the findings may be used in future for an in-depth research that will develop possible improvement strategies. It is not expected that being in this study will be harmful to you but you may feel emotional about telling your story. When that happens, the researcher will refer you to someone who can talk to you or offer relevant counsel without any financial cost.

Can I withdraw from the study?

One is free to pull out from the study any time in the research progression even after you have agreed to participate. Such withdrawal will not have any effect on your employment or relations with your manager.

Attached to these leaflets is the consent form to be signed as a means of agreement to take part in the study.

Contacts: If you have any concern about the study, you may send an electronic mail (e-mail) or phone me the researcher, my supervisor or chairperson of the ethics research committee at Unisa using the following addresses:

Researcher: MP Jiyane (MA Nursing Student)
Address: Ga-Rankuwa Nursing College, Private Bag X 830, Pretoria (0001)
Telephone number: (012) 5600585
E-mail address: phillysjiyane@gmail.com

Supervisor: Dr SH Khunou
E-mail address: khunosh@unisa.ac.za

Chairperson of Ethics Committee: Prof JM Mathibe-Neke
E-mail address: mathijm@unisa.ac.za

ANNEXURE I: INTERVIEW GUIDE

BIOGRAPHICAL TOOL

EXPERIENCES OF PROFESSIONAL NURSES WITH REGARD TO SHORTAGE OF RESOURCES IN A TERTIARY HOSPITAL AT TSHWANE DISTRICT

All information herewith provided will be treated confidentially. It is not necessary to indicate your name on this questionnaire

INSTRUCTIONS

1. Answer all questions by providing an "X" in the box corresponding to the chosen alternative

Answer the question by placing an "X" in the box corresponding to the alternative which is applicable to you

SECTION A: BIOGRAPHICAL DATA

Ref no:			3
Today's date:	Day | Month | Year		9
1.	In which age category do you fall?		10
	1	25-35	
	2	36-45	
	3	46-55	
	4	56-65	

2.	In which academic achievement do you fall? 1 Diploma 2 Basic Degree 3 Honours degree 4 Master's degree 5 Other	11
3	In which unit are you working? 1 Medical 2 Surgical 3 Maternity 4 Paediatric 5 Emergency 6 Critical care	12
4	Indicate the number of years in each unit. 1 Medical unit 2 Surgical unit 3 Maternity unit 4 Paediatric unit 5 Emergency unit 6 Critical care unit	13
5	State years you have been working as a professional nurse? 1 2-3 2 4-5 3 5-6 4 7-8 5 Other (specify)	14

1-14

SECTION B: UNSTRUCTURED INTERVIEW GUIDE

Grand Tour Question

Tell me, what are your experiences of working with shortage of human and non-human resources in this hospital?

Probing questions will follow the responses based on the research objectives.

YOUR PARTICIPATION IS HIGHLY APPRECIATED

ANNEXURE J: LETTER FROM THE CO-CODER

Dr Memme Girly Makua has co-coded the following qualitative data:

Face to face interview transcripts for the study titled:

EXPERIENCES OF PROFESSIONAL NURSES ON THE SHORTAGE OF RESOURCES IN A TERTIARY HOSPITAL IN TSHWANE DISTRICT

I declare that the candidate and I have reached consensus on the major themes reflected by the data during a consensus discussion meeting. I further declare that data saturation was achieved as evidenced by repeating themes.

Dr M G Makua

ANNEXURE K: EDITING DECLARATION

21 October 2020

TO WHOM IT MAY CONCERN

I hereby submit this letter to verify that I have duly edited the following dissertation for the degree MA (Nursing Science):

EXPERIENCES OF PROFESSIONAL NURSES ON THE SHORTAGE OF RESOURCES IN A TERTIARY HOSPITAL IN TSHWANE DISTRICT by MAKOASHA PHILISTUS JIYANE (Student Number: 60786605)

The onus rests however on the author to make the changes suggested and to attend to queries.

My LinkedIn page provides information about my professional profile.

Gava Kassiem

Independent Language Consultant/Academic Editor

MA (Language Practice)

Associate Member of Professional Editors' Guild

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ANNEXURE L: INTERVIEW TRANSCRIPT

Pseudo name: Participant: No 14 Duration (40:00 minutes)

Venue: Intensive care unit (ICU) (Duty room)

Date: 30/12/2018

Time: 17:00-17:40

Key words: R=Researcher

P=Participant

Researcher: Afternoon

Participant: Afternoon

Researcher: May we start the interview?

Researcher	Tell me what your experiences are of working with shortage of resources in this hospital?
Participant	*My experience that I encounter during my working time in this hospital regarding shortage of resources is that err …, sometimes when you don't have material to work with*, *it compromises the patient's care in such a way that you can't deliver quality care to the patients and you end up having patients that don't survive, and they don't make it to go home and some of them result in being corpse instead of going home alive.*
Researcher	Elaborate what you are talking about when you talk about material resources?
Participant	*Material resources, sometimes even gloves. You will find that there are no sterile gloves in the hospital and then some procedures are aseptic techniques, so you end up going there without sterile gloves. Sometimes even the nappies, you will find that there are no nappies in the whole hospital and patients in critical care they need to be nursed while having nappies because most of them cannot help themselves. Including even the sheets most of them are torn and some of them are not cleaned properly so you can't put the patient that is critical exposing to infections like that.*
Researcher	When you talk about sheets, are you using only sheets in the ICU or specifically those are the things that are not always available.
Participant	*No they are available but most of the time there are times where we have to call them that they must bring the sheets which we are not supposed to do. They must know that the patients need to be changed daily and can't stay in a dirty environment to prevent infection*.

Researcher	Explore more about err … material resources, say as much as you can the type of challenges that you are having concerning material resources or even human resource if you feel you want to add human resources.
Participant	*Yes even the human resources we are struggling because we are many untrained nurses in ICU and most trained are going on retirement, meaning patients are being compromised because they don't get quality care because of knowledge that they have than what we are having. Whilst they are gone, they only replace nurses after a long time. When we complain again about taking those untrained nurses to school, they say they take one. So meaning in the next coming years, patients will only be nursed by untrained not critical nurses. Which means critical care is not going to be necessary anymore for patients because we are going to use our general to nurse to nurse very critical patients who need trained nurses. At times like this festive seasons, you will find out that there are many accidents outside. Patients come here, there are no nurses. Even the beds might be available but there are no nurses to nurse them. They end up dying instead of being helped. So the shortage of human resources must be attended to, especially where I am working. Even the service of our machines in this ICU are not serviced and when you admit a patient, you will find that is not working. The patient have to stay long before nursed in a standard bed and critical care patient need to be attended as quickly as possible according to my understanding. So if the machines are not serviced, some of them they say are no more under the service plan like this one, doesn't have other things, the gadgets we don't know where they are and no one is to answer for that.*
Researcher	So is the management a problem or is it, what is the problem? Why are you not having the gadgets?
Participant	*It is a two way, the gadgets, because some people are taking them of which we don't know who they are because you find them today, tomorrow they are not there. There must be supervision of the equipment because it compromises patients care, and sometimes we have to work but we don't have materials like that. Patients need a monitor because we need to see the heart rate, we need to see the blood pressure, we need to see even the ventilation wise because that is our priority in critical care. So if we don't have such things how are we going to help our patients as we want to give optimal patients care?*
Researcher	What is the ratio err …, I mean this unit is taking how many patients?
Participant:	*This unit is taking 20 patients, it was 22 before. The whole ICU, 8, 6, and 6.*

Researcher	And the staff?
Participant	*Staff in all we are 80 something and every year 5 to 6 people are retiring.*
Researcher	So the staff of 80 does it include the night staff and the day staff?
Participants	*It includes all shifts.*
Researcher	This 80, is it professional nurses only or is it combination of other categories?
Participants	*We have professional nurses PNs who are critical care trained, we have generalist who went for 4 year diploma nursing, we have enrolled nurses (E/N).*
Researcher	How many E/Ns do you have?
Participants	*We are having plus, minus 6 E/N and on top of that some are on leave, some are going for long sick leave, especially the elderly ones and the child bearing ones, they will go for maternity leave. On top of that some must go for ICU training.*
Researcher	And night duty staff, how are they allocated, out of the same number?
Participants	*Out of the very same number is 14 with 20 bedded unit.*
Researcher	So, during night duty?
Participants	*It is 14 personnel, meaning there must be at least 2 E/Ns. On top of that during the night they will tell you that you go and help in ward 22 or in ward 30 something. You must leave your patients; they tell you we must share patients. This is a speciality ward, you can't just leave your patients, they need to come here if they have to be observed and we leave this patients like this and say we must double our patients, we are also compromising them and infection control on top of that where is it? How is it going to be controlled? Because once we are with two patients sometimes you forget even to rub because your patient can arrest that side and then you come back to your patient*.
Researcher	So when they take other staff to go and assist, how many do they take?
Participant	*1-2 per night including E/N.*
Researcher	*The role of staff nurses (E/N), they nurse only mask high care patients*
Researcher	Oh, so they are also allocated patients?
Participants	*Yes and these patients that are on masks, most of them are also sick, they need our supervision at the end of the day. So it is challenging us because sometimes you cannot give a staff nurse a heart patient the one that is on the mask because heart patients can arrest anytime.*
Researcher	Continue with your challenges whether human or material.
Participants	*Ja and other on human again, exposure is not enough because no one has time to teach you the right thing. Everyone is minding to check their own*

	patients, so we end up lacking enough information in service training because everyone is looking at the patient and they end up stretching to the next patient which end up nursing a patient without enough knowledge compromise their care. You need to be equipped with knowledge that you can be able to give quality care to the patient. If is the first time here the attitude is not right because you ask and ask and people tend to say you have been asking. You have one year and you still asking today even the doctor will tell you whereas you never have enough time to be taught what is right. It is also blaming each other, instead the doctor will blame the nurses for nurses will blame the doctors because of lack of resources, because sometimes they don't understand when we tell them we didn't have 1, 2, 3. They will come and say we didn't do 1,2 3 and then you have to call other wards, maybe there is no adrenaline or something, you have to call, the patient collapses and then you have to write the statement. The doctor will come and say to you why didn't you do 1, 2, 3. So if we have enough resources that is nearby and not going around and ask, is going to be easy to help our patients.
Researcher	So they are blaming you for which situation?
Participants	*Most of the time let me say we had a patient and the patient didn't make it, it will be like nurses were not observant enough to the patient, we were ignorant and it end up being an issue. Sometimes you can be even called to the office and asked why you didn't do 1, 2, 3 because doctor came here and complain about 1, 2, 3. It is not only the doctors and nurses even the family members. They don't understand because they are not in our environment, so they expect better things. So when they come here you can't tell them we don't have gloves. You don't have 1, 2, 3 for us it is not professional to expose our institution but at the end of the day they are also under stress. They expect equality for their patients.*
Researcher	So can you give an incident where you were exposed to a situation where something happens, and you were affected emotionally or demoralised?
Participant	*The incidence that once happened to me is that we had rotating doctors in ICU , and some of them are here to learn and if I am not trained, I'm not going to give them all the information they want and some of the big sisters are not nice to them. So you end up maybe the patient crashes and they don't know what to do, what to give next and at the end of the day we lose the patient. You can't tell the doctor that it is your fault. When you are home alone you blame yourself that patient we could have saved. To me one*

	patient was gasping one day, the doctor was just standing not knowing what to do.
Researcher	Really? Was he a doctor?
Participant	*He was rotating, he is an anaesthetist.*
Researcher	And what happened?
Participant	*I had to tell the doctor, this is a resus you must come and do cardio pulmonary resuscitation (CPR) that is when he came unfortunately it was too late*
Researcher	So you couldn't do CPR on your own?
Participant	*I did but he must tell us to give adrenaline, do this. I can't do it alone. At the end of the day you must write everything but you can't write that the doctor was standing there without doing anything to the patient. So even doctors coming here, they also need to have basic of what's happening here. Some of the things just happen out of our control. You just become emotional and you don't have emotional support. We also need to be having psychologist and social workers to counsel us because sometimes it is traumatic, especially paediatrics. For me these patients when they come here and don't make it up, you end up going to the toilet and cry. You feel like you failed the child whereas it is not your fault. Another thing the shortage here we are also unable to go out to the workshops in the hospital because they will tell you aaaarrh…. you are going to leave your patients with who? If you go out and at the end of the day you don't have enough information about what is happening. Even when things are updated, you will still have the old information, we don't keep up with others. So I feel like the exposure is not enough.*
Researcher	So you are saying you are having psychologist or is it your suggestion?
Participant	*It is my suggestion*
Researcher	You have already said there's a shortage of human and material resources and how does it affect you?
Participant	Generally?
Researcher	Yes
Participants	*It affects it in a very bad way because if you don't have material and nurses that are not enough for the patients, patients first is going to be compromised in such a way that nurses don't have enough information of what to do when a certain incidence happens and then that's when the patients are affected and deteriorate more instead if there was somebody with enough knowledge and exposure, the patient was going to be saved.*

	*You can nurse the patient, let me say is AAA. So, there are no nurses, you give me; let me say it is my first month. They say there's a shortage of staff then you are forced to nurse the patient. You don't know what is (**AAA Triple A) which is anytime anything can happen to a patient.** You go to the kitchen when you come back the patient is gone. What are you going to do.? So when you go home is depression again, I killed the patient in the first month. So there are things that we are exposed to.*
Researcher	What is the cause of resources shortage?
Participant	*The cause of shortage for human is that they don't have enough nurses in our province and hospital. Material wise am not 100% sure what is happening because I think those who are doing the stock taking and things, those who are ordering equipments must know how many people they are catering for and they must order enough. Nurses wise, we are very short which ended up also compromising our health because we are always tired, you go home being very tired, you come to work being tired because of working hectic. You are stretching every day. Sometimes you get two patients, sometimes you must share with somebody.*
Researcher	What do you do if you feel you are tired?
Participant	*Sometimes we absent ourselves and keep quiet, because you come and talk, nobody will listen to you when you say change my off duties, I am exhausted. They will say you are doing what you want. Absenting yourself, giving yourself a rest and that thing also compromises patients' care because those coming on duty they will be short staff and stretched again. We also don't feel from one another as nurses. If we could support one another, I don't think people will end up absenting themselves from work.*
Researcher	So in other words, what do you mean when you say we don't support one another, you mean in the unit?
Participant	*Yes I can go to the in-charge and tell in-charge that my child is not fine 1, 2, 3. She will tell you, you know young nurses you always come with stories about babies sometimes you don't know what to do. You need a shoulder to cry on or maybe you have a family problem you want to talk about that. You know they will just tell you no, we cannot help you know. If they can have an open door for us so that whatever we have we can be able to talk to them. Sometimes they say come and talk to us but whatever you told them is going to be outside here, you don't feel okay. Confidentiality is not happening*
Researcher	*So you young nurses you are doing what?*
Participant	*We absent ourselves because of babies, so it is our excuse in other words.*

Researcher	So what do you think can be done to improve the situation?
Participants	*What can be done is to hire nurses. They must order enough material. They must give in-service training to all people who are entering the hospital as new at least 2 weeks because we have mentors but when they are asked to go at the back to teach us the basics they say no who is going to be with the patients. So I can't look after two patients you understand. You end up following them and sometimes you follow the wrong things. You go to school one day, you do something that is not applied at all. So we must know the right thing so that we can save our patients. There must be an open-door policy for us.*
Researcher	Open door policy for what?
Participant	*For us to come and say I can't give treatment to patients because I am experiencing 1, 2, 3 emotionally. They must at least hire psychologist because our in- charges, we are not open to talk to them following confidentiality principle, especially us young ones because we are starting life. We are going through many things. We are raising kids, we are new in marriages you understand. We have siblings and parents .*
Researcher	Thank you for your participation.