CONTEXTUAL FACTORS INFLUENCING THE TURNOVER OF NURSES IN SPECIFIED INTENSIVE CARE UNITS IN THE CAPE METROPOLE

By

Grace Wanjeri Magana

Thesis presented in partial fulfilment of the requirements for the degree
Master of Nursing Science " at Stellenbosch University

Supervisor: Mrs Anneleen Damons
Faculty of Medicine and Health Sciences

March 2013

DECLARATION

Declaration

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

March 2013

Signature: _____

Date: 19 February 2013

ABSTRACT

The shortage of nurses in the intensive care units (ICU) affects both the nurse and the patient with regard to quality care and the quality of work life. Job satisfaction as well as factors within the organisation and work environment predisposes dissatisfaction. Identifying these factors may improve the quality of life at work and reduce staff shortages. The aim of this study is to evaluate the contextual factors influencing the turnover of intensive care nurses in specified hospitals in the Cape Metropole.

The objectives were:

- To determine the factors influencing the turnover of intensive care nurses in specified hospitals in the Cape Metropole.
- To compare the findings of the data in the specified hospitals.

An explorative, descriptive design with a quantitative approach has been applied. The research sample consists of all nurses working in the intensive care units in the specified hospitals at the time of the study. A convenience sampling was applied. A structured questionnaire containing predominantly closed-ended questions was used and data collection was conducted by the researcher herself. A pilot study consisting of 10% (N=21) of the sample was done in one of the hospitals to validate the reliability of the questionnaire. The 21 participants who completed the pilot test did not participate in the actual study. The reliability and validity of the findings was assured by the utilization of the statistician and experts in the nursing department.

The data is presented in tables and histograms. A Chi -square test is used to test the statistical significance association between variables.

Spearman's ranks (rho) order correlation is used to show the strength of the relationship between two continuous variables.

The findings of the study show that discontent with salaries, inferior working environments, organisational factors, physical as well as emotional stress and the lack of career development opportunities, were major determinants in the poor quality of life at work with regard to the two set objectives.

Recommendations include those for better remuneration, improved career opportunities and the creation of a safe as well as a friendly work environment. The aim is to create a positive work environment and improve the quality of life at work.

Key words: staff turnover, job satisfaction, quality of care, intensive care nurse, nurse shortage

OPSOMMING

’n Tekort aan verpleegsters in die intensiewesorgeenheid beïnvloed beide die verpleegster en die pasient sovêr dit die gehalte van sorg lewering en die kwaliteit van arbeidservarings in die werkplek betref. Werkstevredenheid, sowel as faktore binne die organisasie en omgewingsfaktore in die werkplek, is aanleidend tot ontevredenheid binne die organisasie. Deur hierdie faktore te identifiseer, mag die kwaliteit van werkslewe verbeter word en die verlies aan personeel verminder word. Die doel van hierdie studie is om die kontekstuele faktore wat die personeel omset van intensiewesorgverpleegsters in spesifieke hospitale in die Kaapse Metropool beïnvloed, te evalueer.

Die doelwitte was:

- Om die faktore wat die omset van intensiewesorgverpleegsters in spesifieke hospitale in die Kaapse metropool beinvloed, te bepaal
- Om die bevindinge van die studie binne verskeiehospitale te vergelyk

Om hierdie navorsingsvrae te beantwoord, is ’n verkennende en beskrywende ontwerp met ’n kwantitatiewe benadering aangewend.

Die steekproef het bestaan uit alle verpleegspersoneel werksaam in die intensiewesorg-eenhede in die gespesifiseerde hospitale binne die studie vermeld .

’n Gerieflikheids-steekproef is uitgevoer. ‘n Goedgestruktueerde vraelys met hoofsaaklik geslote vrae is gebruik vir datainsameling en vraelyste was persoonlik deur die navorser ingeneem. ’n Loodsstudie wat 10% van die steekproef beslaan, (N= 21), is in een van die hospitale onderneem om sodoende die betroubaarheid van die vraelys te bevestig. Die 21 deelnemers was nie deel van die werklike studie nie. Die betroubaarheid en geldigheid van die betrokke studie is bevestig deur die statistikus en kenners in die verplegingsdepartement van sodanige inrigting.

Data is voorgelê in die vorm van tabelle en histogramme. ’n Chi-vierkanttoets is gebruik om die statistiese-beduidends verwantskap tussen veranderlikes te toets. Spearman se rangorde (rho) korrelasie is gebruik om die sterkte van die verhouding tussen twee aaneenlopende veranderlikes aan te dui.

Die bevindinge dui aan dat ontevredenheid oor salarisse, ‘n swak werksomgewing en organisatoriese faktore, sowel as fisiese en emosionele stres, asook ’n gebrek aan loopbaanontwikkeling, groot bepalers was van swak werkskwaliteit in terme van die twee voorgestelde doelwitte.

Aanbevelings bestaan uit voorstelle vir beter salarisse, die skepping van loopbaangeleenthede en die daarstelling van ’n veilige, vriendelike, werksomgewing. Die doel is om ’n positiewe werksomgewing te skep en om die kwaliteit van werkslewe te verbeter.

Sleutelwoorde:omset,werkstevredenheid,kwaliteitsorg, intensiewesorgverpleegster, verpleeg tekort.

Acknowledgements

I WOULD LIKE TO EXPRESS MY SINCERE GRATITUDE:

- To Jesus, for His divine Grace and Renewal of Spirit each day
- To my daughter Caroline, for the patience, support and love she provided.
- To my daughter Linda, for her extremely helpful computer technical support, and her encouragement.
- To my supervisor, Mrs A Damons, for her guidance, tolerance, patience and encouragement. Thank you
- To the hospitals and nurses for their valuable input and participation.
- Professor Martin Kidd for his excellent statistical assistance.
- The editor Mr T Nightingale, for his assistance with the editing of my thesis

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

List of appendices

CHAPTER 1: SCIENTIFIC BACKGROUND AND OVERVIEW OF THE STUDY

1.1 INTRODUCTION

Employee turnover refers to the voluntary termination of one's position in a setting in favour of another, the change of employment status or leaving for an alternative profession Hayajneh, AbuAlRub, Athamneh & Almakhzoomy (2009:304). It can also be termed as seeking a different employment that results in leaving an organization or profession altogether (Hayes, O'Brien, Duffield, Shamian, Buchan, Hughes *et al.,* (2006: 240). Turnover can be initiated by; the employer or the employee (Donoghue & Castle, 2007:364).

There are several consequences related to high turnover. High turnover can for instance; result in the shortage of staff in the nursing profession. The shortage of nurses can have a negative impact on health care organisations with regard to general perceptions related to the quality of patient care at such institutions. Furthermore, high turnover can intensify the pressure on the nurses who work in increasingly dissatisfactory environments such as intensive care units (ICU) (Baumann, 2010:7). Moreover, high turnover has been linked to high instances of patient mortality, medical errors and wound infections (Needleman, Buerhaus, Pankratz, Leibson, Stevens & Harris, 2011:1043; Aiken, Cimmioti, Clarke, Flynn, Seago, Spetz, & Smith, 2010:1038).

Two types of turnover can be identified, external and internal. External turnover refers to the number of people who leave an organisation for various reasons, while internal turnover might be related to job issues within the organisation itself (Alammedine as cited by Baumann, 2010:7).

In this research, the focus is on both internal and external factors that might have an effect on registered nurses leaving ICU health settings in hospitals in the metropolitan area. ICUs are specialised units in a health setting.

Saunders (2007:120) defines an ICU as a facility that provides intensive nursing as well as medical care of critically ill patients. It is characterised by the high quality and quantity of continuous nursing care using sophisticated monitoring devices. The use of these monitoring devices increases the workload of the nursing staff.

An increase in workload might lead to staff shortages which may influence the quality of care within an intensive care setting. Furthermore, nurses working in ICU experience an array of stressors. Amongst these are annoying alarms, unfriendly lighting and an emotionally charged atmosphere due to deaths. In addition, as the disease burden increases, more people become dependent on hospitals and the nurses' workloads escalate, which leads to more stress and an increase turnover. As a result, the work intensity might influence the increase in absenteeism among the nurses working in ICUs. (Alammedine, Dainty, Deber & Sibbald, 2009:244). It is therefore imperative that the needs of the ICU nursing-staff are addressed because they affect the quality of care that the nurses give or render to patients (Verdon, Merlani, Perneger & Ricou 2008: 152).

During her four years of working in ICU, the researcher observed amongst others, the following stressors: staff shortage, an unfriendly work environment and a lack of vital equipment, which are some of the causes that influence the high turnover in the number of nurses. Due to the stressful work environment, many young professionals are leaving in large numbers. It has been reported that only about 3% of nurses younger than 30 are still in the profession (Bateman, 2009:568).

The loss of nursing staff has forced health care providers to make use of agency nurses in ICUs to alleviate the staff shortage and to relieve stress associated with the rendering of efficient and effective patient care to patients in ICUs. However, the use of agency staff may even add to the workload of the permanent staff as many of the agency staff has to be monitored as they often display a lack of commitment and a poor standard of work. In addition, the fees charged by agencies have led to greater expenditure in both private and public hospitals within an already compromised healthcare budget (de Beer *et al.*, 2011:8).

The researcher was concerned about the high turnover of the nursing staff in the ICUs and realised that solutions were needed in order to improve working environments and improve the quality of life at work for staff within intensive care units.

The rationale for the study is based on the researcher's own observations in an ICU-setting as well as research of existing literature to validate the background of the study.

1.2 STUDY SETTING

The study was conducted in eight intensive care units in three different hospitals (two state hospitals and a private hospital) in the Western Cape metropolitan area. The total number of accessible intensive care nurses (ICNs) was 216. The subjects included all categories of nurses working in the units at the time of data collection.

1.3 RATIONALE AND BACKGROUND

The South African Nursing Council (SANC) polices all ethical considerations in nursing to emphasise nurses' rights with regard to career advancement, establishing a safe working environment and participation in decision-making to empower the nurse to render quality care to the patient and to improve the quality of working conditions for the nurse.

Intensive care nursing involves caring for patients who are suffering from life threatening illnesses or injury. Due to its complexity, intensive care requires the nurses to have broad knowledge in highly technological advancements and a high level of decision-making skills when rendering care to patients in the ICU environment (de Beer *et al.* 2011:6) In South Africa (S.A), the nursing profession is in crisis because many professionals leave the country in search of lucrative work opportunities overseas (Stanz & Greyling, 2010:1). As a consequence, South Africa is facing a critical shortage of registered intensive care unit nurses (de Beer, Brysiewicz & Bhengu, 2011:6).

Essentially, the lack of career opportunities and autonomy and organisational factors (Hayes *et al.,* 2006 and Sandra *et al.* 2009:230) are some of the causes leading to increased turnover. A high turnover of ICU nurses results in high nurse-patient ratios (Dolvo, 2007: 1377). According to de Beer *et al.* 2011, the distribution of the professional nurse-to-patient ratio in South Africa has been estimatedat1:43.

Because of high ICU nurse turnover, this already high ratio increases the workload of the remaining staff and compromises the quality of patient care (Hayes *et al.,* 2006). Nevertheless, in a study done in ten European countries, it was found that 12 to 22

percent of nurses considered leaving due to a stressful environment (Hasselhorn as cited in Baumanns, 2010: 15). As a result of the increased nurse-patient ratio, veteran trade unions like the Democratic Nursing Organisation of South Africa (DENOSA) are advocating flexible, but legally enforceable, nurse-patient ratios to reduce burnout, resignations and to try and reverse nurse emigrations (Bateman, 2009: 565).

According to Stanz and Greyling (2010: 4), poor salaries and lack of benefits were the major factors leading to nurses leaving the ICU work environment. In an attempt to retain nurses, the implementation of the Occupation Specific Dispensation (OSD) was initiated in July 2007 (de Beer *et al.,* 2011: 10). However, despite the South African government's intention to increase nursing-allowances, the OSD was flawed because of poor communication and the insufficient allocation of funds (de Beer *et al.*, 2011:10).

Because the implementation of OSD has not alleviated the shortage of registered ICNs, health care institutions rely on newly qualified nurses for service delivery. Novice qualified nurses experience stress caused by the older nurses who feel threatened by their skills and knowledge with regard to advanced technology (Stanz & Greyling, 2010: 4). This was also indicated by Bateman (2009: 1) who found that 74 % of young South African nurses resigned due to stress in the work environment. In consequence, the use of agency nurses has become the norm to help alleviate the staff shortages.

However, the use of agency staff poses numerous challenges because the fees charged by agencies lead to high expenditure. In addition, the agency staff often displays a lack of commitment in their work, leading to medico-legal risks, and the lowering of standards in patient care (de Beer *et al.*, 2011: 8). The increased utilisation of agency staff therefore adds a greater burden to permanent staff members as they have to monitor the agency staff as well as perform their own duties. These factors ultimately create staff shortages leading to an increased workload and burnout which decreases the quality of nursing care and exposes patients to a greater risk of infection which, in turn, increases the mortality rate. This might contribute to even more permanent ICN staff leaving intensive care units.

The researcher has personally experienced and observed an increase in turnover of skilled nurses in ICUs in both state and private hospitals. Poor salaries, lack of career development and management that is not flexible could, according to the researcher, be some of the factors contributing to high turnover.

During a recent nursing summit held in Johannesburg, the National Department of Health (NDH, 2011) discussed some of the key issues affecting nurses and the nursing profession within the South African context. This objective was of great importance to the researcher in determining: "*Why nurses working in ICU leave their work environment for better opportunities elsewhere".* It was emphasised that it is vital that the management, and unit managers in the ICUs are aware of the indicators affecting turnover in order to prevent further staff shortages. Another point of concern raised at the summit was the important roles that nurses play with reference to positive caring, improving patient safety and infection prevention, thereby delivering quality patient care.

Although the focus of caring is predominantly placed on the patient as a core area (George, 1990: 79), the researcher in this study reverses this and places the core focus on the person who delivers the care (the registered ICN) in order to emphasise the importance of caring for the carer so that the carer can be encouraged to care for the patient entrusted to him or her.

1.4 PROBLEM STATEMENT

As stated in the rationale, nurse turnover is a serious problem affecting the ICUs as it has an effect on both the nurses and the patients. The atmosphere in ICUs is not always conducive to care due to the stress and workload which contribute to a lack of job satisfaction and the quality of conditions at work. Subsequently, patient care is at risk due to the decrease in nurse-to- patient ratios at ICUs. The focus of this research is therefore centred around identifying the key factors influencing turnover in the specified hospitals.

1.5 RESEARCH QUESTION

What are the contextual factors contributing to the increased turnover of nurses working in the intensive care units at specified hospitals in the Cape metropolitan area?

1.6 AIM/PURPOSE OF THE STUDY

To assess the contextual factors contributing to the turnover of nurses working in the intensive care units in specified hospitals in the Cape metropolitan area.

1.7 OBJECTIVES OF THE STUDY

1. To determine the factors influencing turnover in specified hospitals indicated in the study.
2. To compare the findings of the data in the specified hospitals.

1.8 CONCEPTUAL FRAMEWORK

Lydia Hall`s theory of nursing has three components to nursing (George 1990: 79); care core and cure. These will be discussed in detail in chapter 2.

1.9 RESEARCH METHODOLOGY

A brief overview of the research methodology applied in this study is provided in this chapter and the detail is provided in Chapter 3.

1.9.1 Research design

Burns and Grove (2007: 24), define descriptive research as the exploration and description of phenomena in real life situations which provide an accurate account of characteristics of particular individual or group situations. A descriptive, exploratory design with a quantitative approach was applied in this study to determine the key contributing factors amongst nurses working in hospitals of specified intensive care units in the Cape metropolitan area. The target hospitals were Grootte Schuur Hospital (GSH), Somerset Hospital (SH) and Vincent Palloti Hospital (SH).

1.9.2.1 Population and sampling

According to Burns and Grove (2007: 324), the population, sometimes referred to as the target population, is the entire set of persons (or elements) who meet the sampling criteria. The total accessible intensive care nurses was N=216. The subjects were all nurses working in intensive care units at the time of data collection. A convenience-sampling technique was utilised in this study as the target population was not large.

1.9.2.1 Inclusive sampling criteria

Inclusion criteria are the characteristics that the subject or element must possess to be part of the target population (Burns & Grove, 2007:325).

For the purpose of this study the inclusive criteria were:

- All nurses working in the intensive care units in the selected hospitals in the Western Cape metropolitan area and,
- Agency staff working in the ICU only

1.9.3 Data gathering instrument

A questionnaire was designed with the assistance of a statistician, Prof M Kidd. The questionnaire was used to gather data on factors that contribute to turnover and the underlying reasons for turnover. Burns and Grove (2007:38) define questionnaires as printed self-reports designed to elicit information through written or verbal response. An existing questionnaire previously used by Stanz and Greyling with their permission, was adapted and adjusted and utilised. The questionnaire was divided into the following sections:

- Background information
- Education background
- Reasons why nursing employees decide to leave their work environment

Permission to use the questionnaire as a base and to adopt it was granted by Stanz and Greyling (2011).

1.9.4 Pilot study

A pilot test was conducted in Vincent Palloti Hospital. The pilot study comprised a questionnaire that was used under the same circumstances as the actual study to pre-test the instruments for inaccuracies and ambiguity. After the pilot study was completed, the original questionnaire was adapted with the assistance of the statistician.

The analysis of the data collected during the pilot study was completed with the assistance of the statistician. The findings are discussed in chapter 3

1.9.5 Validity and reliability

The validity of an instrument is a determination of how well the instrument reflects the abstract concept being examined (Burns & Grove, 2007: 365). Burns & Grove, 2007: 365 also state that the reliability of an instrument is concerned with the consistency of the measuring technique.

To ensure the reliability of the study, the researcher collected the data herself. All the nurses in the intensive care units eligible for participation in the study were targeted, thereby ensuring generalisation of the results. In order to ensure validity, that is that the instrument measures what it is supposed to measure, a statistician was consulted to assist in adapting the old questionnaires used in other studies for use in the proposed study. The supervisor, statistician Prof M. Kidd, assisted with the data analysis to ensure reliability and validity. A pilot study was undertaken to pre-test and to pick up on any inaccuracies in the questionnaire and to evaluate content validity of the measuring instrument. This was done under the same conditions as in the main study.

1.9.5.1 Content validity

This was ensured as the instrument was subjected to multiple revisions based on peer review

1.9.5.2 Face validity

Face validity will be tested by asking experts to express their opinion as to whether the questionnaire tests what it should be testing. De Vos *et al.* (2005:161) use face validity and content validity interchangeably. Face validity is stated by De Vos *et al.* (2005:161) to be: “The measure instrument looks as if (sic) it measures what it is supposed to measure.” The validity and reliability will be determined by means of the pilot study.

1.9.6 Data collection

The researcher distributed the questionnaires to the participants in the ICUs of the specified hospitals in the metropolitan area and collected the data herself.

1.9.7 Data analysis and interpretation

Analysis and data interpretation were conducted with the help of a statistician (Prof M. Kidd) from Stellenbosch University. Data was expressed in frequencies, tables

and histograms. A Chi-Square test was used to determine associations between various data variables. The analysis is predominantly descriptive in nature and associations were recorded.

1.9.8 Ethical considerations

The researcher adhered to the following ethical principles:

1.9.8.1 Right to privacy, confidentiality and anonymity

The researcher applied to the Human Research Council of the University of Stellenbosch for a written consent to conduct the study. A second written consent was obtained from the Medical Superintendents of the participant hospitals in which the research was conducted. To ensure privacy, confidentiality and anonymity of the participants, the researcher used codes and not names during data collection and management.

A questionnaire and an envelope were provided to each participant to ensure anonymity. A box was placed in the unit manager's office and the participants were told to put the completed questionnaire in the box. Sealed envelopes with completed questionnaires were handed directly to the researcher. Participating hospitals were coded to ensure anonymity and the researcher's contact details were provided in case of any queries relating to the study.

1.9.8.2 Beneficence

The principle of beneficence requires that the researcher not expose participants to undue physical or emotional harm (Leedy & Ormrod 2005:101). The study was a non- experimental study and the participants were not exposed to harmful situations.

1.9.8.3 Informed consent

Participants were clearly informed about what the study entails. They were given time to make decisions on whether to participate and were informed that they had a right to withdraw at any stage of the process. Consent was obtained from the willing participants

All participants signed informed consent documents prior to answering the questionnaires and the content was explained by the principal investigator. The nature of the research was explained to all participants; furthermore, participants

were informed that participation was voluntary and that they could withdraw at any given time. No incentives to take part in the study were offered to any participant.

The researcher ensured participants that they had the right to withdraw from the study at any time without being penalised in any way.

1.10 OPERATIONAL DEFINITIONS/ CONCEPTUAL DEFINITIONS.

Turnover: This is defined as voluntarily terminating one's position in one setting and moving to another, changing employment status in the same setting or completely leaving the profession for another (Booyens, 2007:370).

Intensive care unit (ICU): This is defined as a facility for the provision of intensive nursing and medical care for critically ill patients, characterised by high quality and quantity of continuous nursing care and by the use of sophisticated monitoring devices(de Beer *et al*, 2011:6).

Intensive care nurse (ICN): A nurse who is registered with the South African Nursing Council (SANC) as a Critical Care Nurse – General and Regulation 212 as prescribed by SANC.This qualification is governed as a specialty by SANC.

SANC: South African Nursing Council - a body that governs and regulates nurses.

1.11 DURATION OF THE STUDY

The study was conducted over a period of 18 months, from February 2011 to Nov 2012.

1.12 STUDY FRAME

Chapter 1: Scientific foundation of the study

Chapter 1 comprises the background and the motivation of the study. It provides a brief overview of literature, research problem, research question, study objectives, research methodology and the study layout.

Chapter 2: Literature Review

In chapter 2, different pieces of literature from existing studies are reviewed and discussed. The conceptual framework of the study is outlined.

Chapter 3: Research Methodology

The description of the research methodology applied is discussed in depth in chapter 3.

Chapter 4: Data analysis and interpretation

The results of the study are analysed, interpreted and discussed in chapter 4.

Chapter 5: Discussion and Recommendations

Conclusions are drawn and recommendations are made in chapter 5.

1.13 SIGNIFICANCE OF THE STUDY

While working as an ICN, the researcher experienced a shortage of nurses in the ICUs. Peer reviewed research (Hayes *et al.,* 2006:240, de Beer *et al.,* 2011: 6, Stanz & Greyling, 2010: 1) also confirmed the ICU nurse shortage. It is therefore important to identify the factors that may contribute to increased turnover in order to ensure quality care and the quality of employment conditions for the nurses.

1.14 SUMMARY

Key challenges facing intensive care nurses in South Africa as well as the rest of the world are outlined in chapter 1. Staff shortages, an unfriendly work environment, the burden of disease and job dissatisfaction are some of the factors that affect nurses. These factors subsequently increase the nurses' workload which in turn increases stress and affects the quality of life at work, the quality of patient care and leads to a greater turnover of ICN. In order to identify the potential factors leading to increased turnover and to attempt a reversal in the shortage of nurses, the literature which addresses the objectives of the study is reviewed in chapter 2.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

Chapter one provided an explanation of the background, rationale and methodology of the study. In this chapter, the focus is on a literature review of the contextual factors that may influence turnover in the number of intensive care nurses (ICNs). A shortage of nurses in all categories within the health services is recognised as a crisis both in developing and developed countries. South Africa also experiences this phenomenon as scores of professionals seek lucrative work opportunities overseas (Stanz & Greyling 2010:4). Identifying and acting upon these factors may help alleviate the shortage.

2.2 SELECTING AND REVIEWING OF THE LITERATURE

Mouton (2001:87) refers to a literature review in a research project as a reflection of "a body of accumulated scholarship" from other scholars on the identified research problem under study, including theory, conceptualisation of issues, empirical findings, instrumentation used, and its efficacy.

The literature review process was undertaken to search for and identify relevant literature that would add value to the researched topic. Search databases of CINAHL, MEDLINE and PUB-Med were utilised. The researcher was assisted by her supervisor and the librarian to find literature. The keywords, 'turnover', 'intensive care', 'nurse', 'intensive care unit (ICU)' and 'nurse shortage' were used. Despite the use of different keywords, little material could be found, especially regarding intensive care nurses, as the majority of studies dealt with professional nurses in general. It has been evidenced that limited research has been conducted in South Africa regarding the research topic of this study.

2.3 FRAMEWORK USED TO PRESENT FINDINGS FROM LITERATURE REVIEW

The literature review process was conducted throughout the duration of the research (12- 18) months. The available material was selected from journals, articles, periodicals and books, and from references within journal articles. Due to the scarcity of published studies in South African journals, the publications used were mostly accessed from international journals.

A chronological pattern is used to present this literature review. The background of nursing and the factors that influence the shortage of ICNs are explained. Literature on the global shortage of nurses is outlined as well as how it impacts on intensive care nursing. Crucial factors such as job satisfaction, the work environment, organisation, generational factors as well as the conceptual framework guiding the study, are explained.

The literature will be discussed in the following order.

Historical Background of nursing

- Intensive care nursing
- Intensive care nursing in South Africa

Shortage of nurses globally

- Sub Saharan Africa
- South Africa
- Western Cape

Job satisfaction

- Definition and concept
- Factors influencing

Working environment

- Definition and concept
- Disadvantages

Organisation

Generation factors

Quality of work life

Conceptual theoretical framework

2.4 HISTORICAL BACKGROUND OF NURSING

2.4.1 Foundation of Nursing

The foundation of nursing is related to core, care, and cure which was pioneered by Florence Nightingale. Born on May 12 1820 in Florence Italy, she was the founder of modern nursing. According to Nightingale, nursing composes three major relationships:

1. Environment to patient
2. Nurse to environment
3. Nurse to patient.

These core principles are still in use today. These principles relate directly to the conceptual framework of the study. A stressful work environment causes physical and emotional harm to the nurse and thus affects the nurse's **care aspect**. A stressful environment affects the inner feelings and management of the nurse to the patient which is the **core aspect**. This interferes with the **cure** that is to be rendered to the patient.

2.4.2 Background of Intensive Care Nursing

Critical care nursing evolved from the recognition that the needs of patients with life threatening illnesses are better met in specific areas in the hospital. Intensive care is a relatively young discipline with the first units emerging in the 1940's. Intensive care began in the United States America (USA) at John Hopkins hospital when Dr. Danaly opened a three-bed unit to care for post-operative patients (Alligood & Tomey, 2010:71).

During the Second World War, shock wards were established to resuscitate injured soldiers. The establishment of shock wards followed the acute shortage of nurses and forced the grouping of post-operative patients in recovery rooms for maximum care.

Between 1947 and 1948, a polio epidemic raged through Europe and the USA causing patients to suffer from respiratory paralysis. This led to a breakthrough named intubation, where a tube was placed in the trachea of polio patients. These patients required intensive nursing care. In 1950, the development of the ventilator

led to the organisation of intensive care units and John Hopkins Medical became the first multi-disciplinary intensive care unit in the USA (www.sccm.org).

2.4.3 Background of ICU in South Africa

In South Africa, intensive care nursing was officially established in 1966. Intensive care nursing is a post registration qualification offered to registered nurses at degree or diploma level in both public and private universities. Intensive care nursing is registered with the South African Nursing Council as Critical Care Nursing General, making intensive care nurses clinical nurse specialists. Regulation 212, as prescribed by SANC, governs this qualification (de Beer, Brysiewicz & Bhengu, 2011:8).

Although South Africa trains critical care nurses, there is a shortage in both the public and private sectors. This situation occurs due to the aggressive recruitment from developed countries such as Australia where these professionals are offered better remuneration packages (Dlovo, 2007:1375).

2.5 SHORTAGE OF NURSES

The on-going instability in the nursing workforce in relation to the issue of nurse turnover has raised questions globally (Hayes *et al.*, 2006:240). This shortage has an impact on the wellbeing of nurses and the quality of patient care (Hayes *et al.,* 2006:243). Poor wages, a poor work environment, burnout and job dissatisfaction are recognised as some of the factors promoting nurse turnover (Hayes *et al.*2006:244).

In a descriptive study conducted in Jordan, the nurse turnover rate was found to be 36.6% (Hayajneh *et al.*, 2009:308). This high turnover was mostly attributed to salary dissatisfaction and the high international demand for nurses (Hayajneh *et al.,* 2009: 308). Moreover, in a qualitative study conducted in the USA, 17% of 4000 critical care nurses reported their intent to quit their current employment due to job dissatisfaction (Foglia & Grassley, 2010:305). Cultural diversity was also seen as a factor that influenced high turnover (Wadea, 2009:222).

In Sub-Saharan Africa it is estimated that only 1.3 % of the trained health workforce remains in the region because 40%-50% of its trained nurses are working abroad. (Dlovo, 2007:1374). This is as a consequence of a broad range of issues including job dissatisfaction, a poor work environment, lack of career opportunities as well as occupational risks due to HIV/AIDS (Dlovo 2007:215)

High nurse emigration from developing countries has also resulted in South Africa facing a critical shortage of ICNs. According to the Intensive care Nurse Society of Africa, the patient to professional nurse ratio has been estimated at 434:1 (de Beers *et al.,* 2011:8).This can be attributed to inadequate salaries, limited career opportunities, poor working conditions and the profound impact of HIV/AIDS on both the patients and the health care workers (Dlovo, 2007:216).

2.6 NURSE TURNOVER

Employee turnover continues to be an important challenge facing the nursing profession globally (Hajayneh *et al.*, 2009: 303). Turnover impacts health care organisations in terms of the perception of quality care and heightens the pressure on nurses to work in an increasingly fractured and dissatisfactory environment such as ICUs (Baumann, 2010: 7).

Booyens (2007:370) further indicates that turnover in nursing personnel is either avoidable such as when it results from the failure of the organisation to keep the employee, or unavoidable when it is the result of marriage, pregnancy or the transfer of a spouse. It is estimated that approximately 36% of turnover is associated with unavoidable causes, whilst 64% is associated with avoidable factors (Booyens, 2007: 370).

The high turnover of nurses, especially in the ICUs, creates shortages because fewer nurses remain to tend to critically ill patients, resulting in an increased workload, stress and burnout. A study conducted in a Jordanian hospital showed an overall turnover of 36.6% which was considered high (Hayajneh *et al.*, 2009:308). Moreover, this lowers staff morale and the level of care which compromises the quality of care rendered to the patients by the nurses. This may lead to medical and legal hazards (Needleman *et al.*, 2011:1039).

However, not all turnovers are bad. According to Booyens (2002; 378) some organisations may not want to reduce turnover as they may want to bring in as many new employees as possible to absorb new ideas and stimulate changes in stagnant routines. However, this does not apply to hospitals because many health care organisations want to retain skilled personnel and secure the workforce, ensuring that quality care is rendered to patients. It is thus important for nurse managers to

create positive work environments in ICUs to ensure a low turnover thereby retaining more skilled nurses. This promotes the quality of work life and the quality of care extended to patients (Meyer *et al.*, 2009:218).

2.6.1 FACTORS THAT MAY INFLUENCE TURNOVER IN ICUs

Nurses are some of the most critical groups of professional care providers within the health arena yet a shortage of intensive care nurses has continued to be a problem over the last few decades, affecting the delivery of health care in developing countries including South Africa (Stanz & Greyling, 2010:2).

In general, previous research has demonstrated that many work-related factors were instrumental in nurses' employment decisions. In many studies it was found that job dissatisfaction, unfavourable working environments, management factors and generational factors have influenced nurse turnover behaviour (Hayes *et al.,*2006:241, Stanz & Greyling, 2010:5 and Coomber & Barribal, 2007:299).

2.6.1.1 Job Satisfaction

Coomber *et al.* (2007:299) pointed out that the concept of job satisfaction has two main themes. Firstly, the affective component, which is a feeling of satisfaction and secondly, a perceptual component, which is the evaluation of whether one's needs are met by one's job. Job satisfaction is the function of complex interactions of economic needs which entail financial needs such as salaries, social, which is balance between work and home as well as psychological factors like stressful work environments (Pentz *et al.,* 2008:286).

Job satisfaction has been cited as a major contributory factor to the intent to stay (Coomber *et al.,* 2007:299). This notion is supported by Stanz & Greyling, (2010:4) who state that out of 208 nurse respondents, 89 (42.79%) indicated that poor salaries and benefits were the most important factor affecting their intention to leave their current employment. A literature review compiled by Dlovo (2007:1375) in Sub-Saharan Africa showed that 60% of the nurses resigned from a single Malawian hospital to work in developed countries due to poor salaries in that country. This driving factor encourages nurses to migrate to the country of source due to better salaries (Dlovo, 2007:1374).The migration of nurses causes an increase in the nurse-

patient ratio and consequently the remaining staff experiences a heavier workload which in turn compromises the quality of patient careHayes *et al.* (2006: 239).

South Korean researchers, Chanynong, Bok, Yu and Cho (2010:1297), conducted a study on the relationships of job satisfaction with perceived organisational support and quality of care among South Korean nurses. Their study revealed that a third of the respondents were dissatisfied with their current jobs due to low salaries and an unhealthy and poor work environment. These factors compromise the patient's outcome and quality care by increasing the patient's mortality (Needleman *et al.,* 2011:1043) as these directly or indirectly correlate with nurses' job satisfaction. Caring for the nurse is therefore of utmost importance since dissatisfaction of the nurse compromises the quality care of the patient.

2.6.1.2 Work Environment

Dissatisfaction among intensive care unit nurses is not a new phenomenon. The intensive care environment is highly technological, requiring the nurses to have a broad knowledge base and a high level of decision-making skills when caring for patients - de Beer (2011).

Stressful work environments

In a sample of 208 South African nurses, Stanz and Greyling (2010) found that 7.2% of nurses intended to leave their jobs because of stressful work environments. Some of the reasons for leaving included poor management and low staff numbers, leading to an increase in workload in the unit. In addition, this increased workload resulted in a low professional patient to nurse ratio of 431:1 (de Beer *et al.*, 2011).

The researcher is an experienced ICU nurse and has also observed and experienced the ICU environment as stressful.

In the international arena, working long shifts is a major cause of stress for ICNs.In a study conducted by Alison, Meg, Carla, Ayse, Yulan and Kihye (2011:5), it was found that out of 633 nurses working in Illinois, (USA), 21.49% had the intent to leave and the resulting turnover was associated with increased patient mortality rates. Moreover (Needleman, Buerhus, Shane, Cynthia Susanna and Marceline, 2011:1042) also

found that high turnover (6.9%) was significantly associated with an increase in patient mortality.

High turnover has forced health care institutions to rely on newly qualified nurses for service delivery. These junior nurses can be a burden to experienced staff and may, in most cases, not get the support that they need from nursing managers who may feel threatened by junior nurses' skills and knowledge of technology (Odendaal & Nel, 2005: 95). This leads to the junior nurses opting to leave the profession Bateman, (2009:1) found that 74% of young South African nurses left their current employment due to the stressful work environment which is directly related to job satisfaction.

However, in a quantitative study involving 58 respondents in Singapore, it was found that 92% of ICNs receiving an extra allowance and enjoying autonomy at work, opted to stay in the profession (Chan & Morisson, 2000: 117). These findings indicate that autonomy at work and an extra allowance boosted the nurses' morale and sense of self-worth, hence improving the quality of work life for the nurses (Meyer *et al.,* 2009:217).

Prevalence of disease

Moreover, the prevalence of disease (for example HIV/ AIDS and the tuberculosis (TB) pandemic) is having a profound impact on health care workers and patients, especially in developing countries. According to de Beer *et al.,* (2011:6), 5 million South Africans (10% of the population) are infected with HIV, with 16% of those infected being health care workers. As the HIV/AIDS and TB pandemic spreads, more people become dependent on hospitals, especially on the intensive care units due to disease and opportunistic infections. This increases the nurses' workload (Bateman, 2009:565). Absenteeism at work increases as work increases due to illness experienced by HIV/ AIDS - infected health workers, thus increasing the workload of the remaining nurses. This leads to stress, burnout, and decreased quality of work, and ultimately compromises the quality of patient care.

It is therefore important that organisations and management care for and be mindful of their workers to ensure that patients under their care receive quality care. This will promote curing and ensure staff and client satisfaction. If nurses feel that they cannot

relate to the patients and cannot give maximum therapeutic care because the environment in which they have to render care is not conducive to their personal needs, they will leave.

2.6.1.3 Organisational Factors

Organisational characteristics associated with management style, empowerment, autonomy, respect, promotion opportunities, and lack of communication with ICNs has been associated with high nurse turnover (Hayes *et al.* 2006, Foglia & Glassley 2010, Laschingey & Finegan 2005:8).

Leadership role

Valuable leadership or management shares a consistent relationship with job satisfaction (Coomber & Barribal 2007: 310). ICNs work in particularly stressful environment as a result of the intensity of a workload resulting from high patient ratios as well as the complexity in the ICU environment where the constant monitoring of high technology machines is essential. Stressful environments can lead to burnout and may increase conflicts and absenteeism and may result in increased turnover. Besides serving as role models and mentors, the nurse managers are expected to deal with the immediate and unexpected conflicts which may arise in the ICUs (Stina, Goram & Goranti 2007: 170). Managers in the ICUs should therefore embrace participative leadership so as to promote the smooth running of the intensive care units.

Communication

Odendaal and Nel (2005: 96) explored the support provided to ICU nurses and found that personal attitudes, a lack of communication, respect and unresolved conflicts were influential factors contributing to job dissatisfaction. Furthermore, Stanz *et al.* (2010: 5) asserted that the quality of management was an important determinant of intent to leave their current employment. Similarly, Stina *et al.* (2007: 177) also found that management style, autonomy and conflicts, influenced the professional job satisfaction of intensive care nurses, and therefore, staff turnover. Moreover, Fouché (2011) found that nurse leaders were responsible for creating health care environments that uphold value-based nursing practices through the acknowledgement of individual nurse.

However, Chan and Morrison (2000:117), found that a large proportion (82.7%) of registered nurses working in the ICU ascribed their intent to stay to greater autonomy, effective communication at work as well as an extra monthly allowance given to specialised nurses. Because communication plays a major role in the working day of nurses, it is of vital importance to make sure that all sides are heard before a decision is made. Leadership encompassing an open, empowering approach, may therefore be able to reduce turnover, as more nurses feel empowered and respected and have job satisfaction which promotes the well-being of the nurse and the effective functioning of the unit.

2.6.1.4 Generation Factors

A broad range of generational diversity exists in the current nursing profession. Generational differences in attitudes, beliefs, work habits and expectations have proven challenging for nurse leaders (Kramer, 2010:125). This generation gap has proven to be a potential area for disagreement and conflicts, especially in the stressful environment of ICUs.

The various nursing generations are: the Veteran generation born between 1925 and 1945, Baby boomers born between 1946 and 1964, Generation X born between 1963 and 1980 and the Millennial or Y generation born between 1980 and 2000. In the nursing profession, the majority of the senior managers are Veterans or Baby boomers. There is consequently an age gap between them and the Generation X's and Y's, as the latter do not always have representation in managerial positions. Millennials are the smallest cohort in the nursing profession. Millennial nurses expect more coaching and mentoring than any other generation in the nursing workforce (Kramer 2010:126). If their expectations are not met then organisations can expect high turnover, as reported by Bateman (2009:568) who found that 74% of South African nurses are over 40 years of age, compared to 3% who are under age 30.

Promoting a sense of self-worth in junior nurses builds their confidence. Subsequently, promoting job satisfaction, harmony and the well-being of the nurse, additionally improves the relationship between patient and nurse. It is therefore important for nurse managers to consider individual nurses' needs and generation differences when addressing issues in their units.

2.6.1.5 Quality of Work Life

In every hospital unit it is of vital importance for the staff members to enjoy their work, as this promotes a positive atmosphere, increases productivity and promotes self-worth, thereby reducing turnover. This feeling of self–worth leads to job satisfaction referred to as quality of work life (Meyer *et al.,* 2009:216).

Booysen, (2007:695) refers to quality of work life as "a degree to which employees are able to satisfy their importance needs by working at an institution". However, the high acuity of the patients makes the working environment of the ICU stressful. Young nurses expect constant guidance and mentoring from their senior colleagues and believe in work life balance and self-reliance. The young nurses are optimistic and goal orientated and if these needs are not met, it affects their quality of work life forcing them to leave and thus increasing turnover (Kramer, 2010:126).

The development of a culture of learning within organisations, and particularly in the ICU, contributes to life-long learning and promotes the development of skills and quality of work life increasing the retention of nurses. It was found that 5.8% of the nurses had the intent to leave their current employment due to the lack of career advancement opportunities (Hayes *et al.*, 2006: 242, Stanz *et al.*, 2010: 5. Due to the shortage of nurses in the ICUs, management can only afford to send a limited number of staff for further training, leading to the nurses leaving their jobs to advance their careers privately (de Beer *et al.,* 2011: 10).

Therefore, to promote stability and motivate intensive care nurses, the unit manager should enhance quality of work-life in the unit. Enhancing quality of work life assists in the retention of staff and consequently decreases turnover.

2.7 A DISCUSSION OF THE FRAMEWORK GUIDING THE STUDY

As mentioned in Chapter 1, there are three components of nursing; care, core and cure (George, 1990: 79). Firstly, **care** is the nurturing component of Lydia Hall's theory. It involves the care and comfort of a person's body and the provision of basic needs to the body. Therefore, if a nurse is stressed and exhausted, he or she cannot provide the quality care needed by the patient (George, 1990:80).

Secondly, **core** concerns the therapeutic use of self and is shared with the other members of the health team. It promotes the self- worth and esteem of the nurse.

This reflective technique helps the patient to have confidence in the nurse. A demoralised nurse cannot feel self- worth and this affects the nurse-patient relationship (George 1990:80).

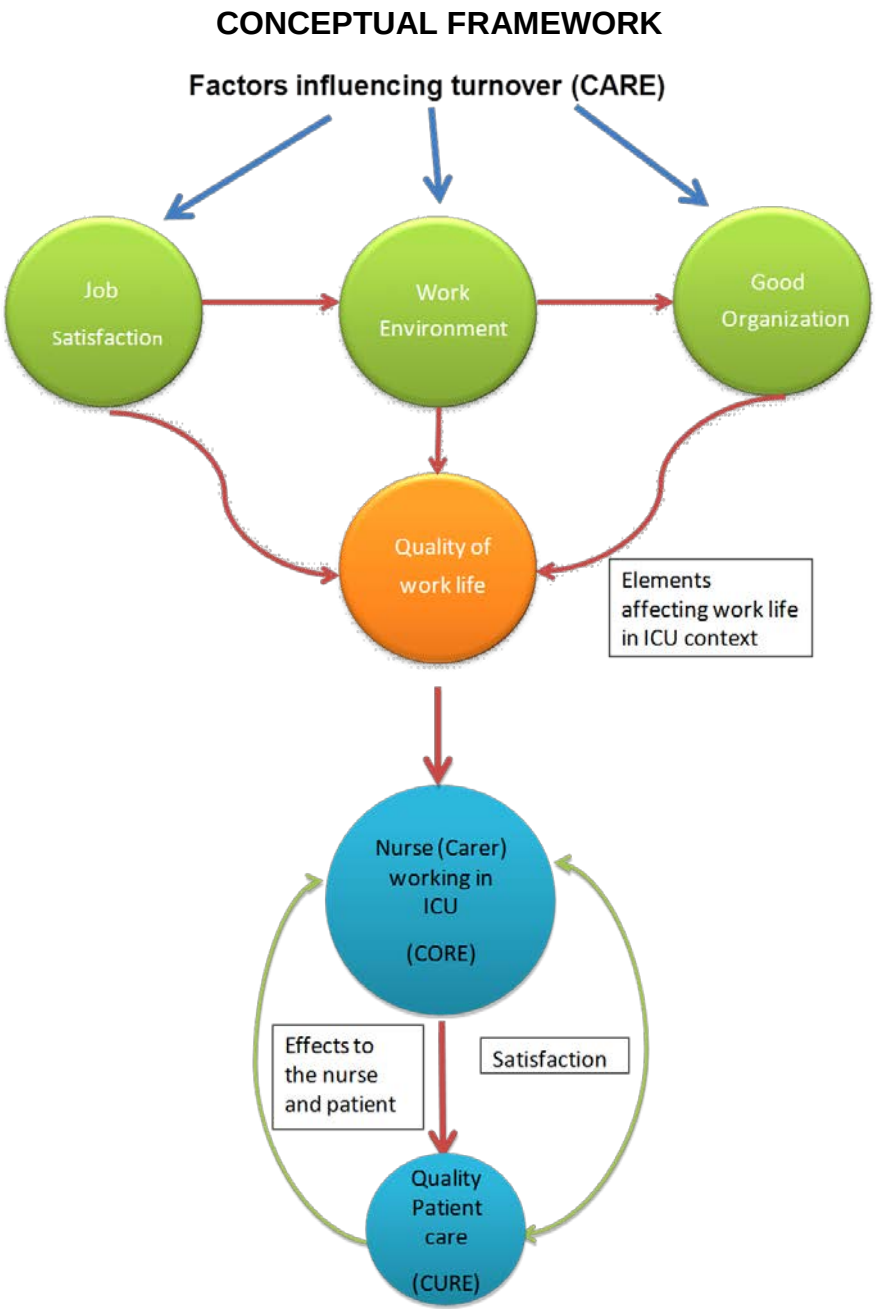
Finally, **cure** is based on the pathological therapeutic sciences. The nurse helps the patient through medical, surgical and rehabilitative processes prescribed by the doctor. A nurse that is emotionally stressed and has no supporting system to relieve stress, will not be able to cure the patient (George 1990:81).Staff who experience stress within their working environment are most likely to resign or change their workplace.

For the nurse to provide quality care to the patient, it is therefore essential that the core, care and cure aspects receive attention (George, 1990:80).

These three independent circles work concurrently to provide optimum quality care to the patient. However, if the nurse works in a stressful environment, he or she can become physically and emotionally drained, resulting in limited care and nurture of patients. It is therefore important that organisations and management care for, and be mindful of ICNs to ensure that patients receive quality nursing-care. This will in turn promote curing and ensure staff- and satisfaction. Moreover, if the nurses feel that they cannot relate to the patient and cannot give maximum therapeutic care to such patients because the environment in which care has to be rendered is not conducive to the nurses' personal needs, they might opt to leave. A lack of fulfilment in nurses' jobs affects their will to continue with the job, leading to resignation and the ultimate increase in ICU turnover.

This conceptual framework is used as the basis for this study. A question that still remains relates to how integration of the 3 circle approach (core, care and cure) can be sustained if there is a breakdown within the core circle due to turnover in the ICU units.

Figure 2.1: Factors influencing turnover



Illustrated above and accepted as discussed in (Nursing theories). Diagram by Magana G. (2011) (Assisted by Supervisor A. Damons).

2.8 SUMMARY

The literature review which was conducted has shown that many factors are associated with nurse turnover. These factors include work environment, job satisfaction, organisational and generation factors, and quality of work life. Hayes *et al.,* (2006:340) and De Beer *et al.,* (2011:7) found that job satisfaction, work environment and organisational factors influenced turnover. The researcher experienced similar problems while working in the ICU environment.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 INTRODUCTION

In the preceding chapters, a descriptive study, background and a comprehensive literature review regarding factors contributing to the turnover of intensive care nurses both nationally and globally were presented.

In this chapter, the research methodology that was applied to determine the contextual factors influencing turnover of ICNs, will be described. The goals and objectives set for the study, research design, population, sample, setting, data collection and data analysis will be detailed.

Factors such as job dissatisfaction, generation differences, inadequate remuneration and benefits, unhealthy working environment as well as managerial incompetence, have been associated with the turnover of ICNs. The purpose of the research was to assess the factors that may influence the turnover of ICNs in specified hospitals in the Cape Metropole.

Research methodology refers to the steps taken by the researcher in order to solve the research problem and answer the research question (Brink, 2008:191). It describes the scientific basis of the research process with regards to planning, implementation and execution (De Vos *et al.*, 2003:5).

3.2 STUDY SETTING

The study was conducted in eight intensive care units in three different hospitals (two state owned hospitals and one private hospital). These healthcare institutions are identified as a tertiary academic hospital, a secondary, and a private hospital in the Western Cape metropolitan area.

The researcher initially included three other ICU healthcare institutions consisting of two public and 1 private healthcare institutions as the primary target population. This would have made the sample size larger and more representable. However these institutions refuse to give the researcher consent to-do the study. This left the researcher with an accessible population as indicated below.

The tertiary academic hospital has two respiratory units, two surgical units, two neurosurgical units, one isolation unit, one coronary care unit and one acute spinal

unit - a total of 9 intensive care units. Of these, two respiratory units, two surgical units and a coronary care unit were selected for the study. The secondary hospital has one general ICU, which was also selected. The private hospital has surgical, medical and neonatal units. The two adult ICU medical and surgical units were selected for the study.

3.3 RESEARCH DESIGN

A descriptive, exploratory design with a quantitative approach was applied to determine the contextual factors influencing the turnover of ICNs working in the specified ICUs in the Cape Metropole. Burns and Grove (2007:24), define descriptive research as the exploration and description of phenomena in real life situations which provides an accurate account of characteristics of particular individuals' situations or groups. It involves a set of decisions regarding what topic is to be studied among what population, with what research methods and for what purpose (De Vos *et al.,* 2011:142). A non-experimental, descriptive, explorative design with a quantitative approach was applied in this study.

According to De Vos *et al.* (2011:155), in a non-experimental design study, the units that have been selected to take part in the research are measured on all the relevant variables at a specific time with no manipulation of the variables or control group. The major purpose of non-experimental research is to describe phenomena as well as to explore and explain the relationship between variables (Brink, 2006:102).

Quantitative research is a formal, objective, rigorous, systematic process for generating information about the world - describing new situations, events, or concepts (Burns& Grove, 2006:24).

The application of this approach allows the researcher to explore and describe real life situations as they exist (Burns & Grove, 2006:24).Quantitative data was obtained by using a questionnaire as a data-collection tool.

3.4 POPULATION AND SAMPLING

The total accessible population of intensive care nurses was N=216 (Table 3.1). The subjects were all the nurses working in the ICUs at the time of data collection. Multidisciplinary teams like the doctors, dieticians, and physiotherapists were

excluded from the study. Participants of the pilot study 10% (N= 21) were also excluded from the actual study.

Table 3.1: Total population of the three hospitals Groote Schuur Hospital (GSH), Vincent Palloti (VP) and Somerset Hospital (SH) (N = 216/100.)

Total population of the three hospitals

Units	CPNS			PNS			ENS			ENAS			Total
UNIT	GSH	VPH	SH	GSH	VPH	SH	GSH	VPH	SH	GSH	VPH	SH	TOTAL N
RESPIRATORY 1	n 8	-	-	n 8	-	-	n 6	-	-	n 4	-	-	N 26
RESPIRATORY 2	n 8	-	-	n 6	-	-	n 6	-	-	n 4	-	-	N 24
SURGICAL 1	n10	-	-	n 8	-	-	n 6	-	-	n 4	-	-	N 28
SURGICAL 2	n10	-	-	n 8	-	-	n 6	-	-	n 4	-	-	N 28
SURGICAL 3	-	n 6	-	-	n12	-	-	n 8	-	-	n 6	-	N 32
MEDICAL	-	n10	-	-	n10	-	-	n 6	-	-	n 4	-	N 30
CORONARY	n 4	-	-	n10	-	-	n 8	-	-	n 8	-	-	N 30
GENERAL	-	-	n 2	-	-	n 13	-	-	n 3	-	-	n 0	N 18
TOTAL N	n= 56	n= 16	n= 2	n= 62	n= 22	n= 13	n= 46	n= 14	n= 3	n= 34	n= 10	n= 0	N= 216

Total population: (N =216/100%)

Total population as per hospital:

- GSH = n 136 (62.9%)
- VPH = n 62 (28.7%)
- SH =n 18 (8.35%)

CPN: Chief Professional Nurses

PN: Professional Nurses

EN: Enrolled Nurses.

ENAs: Enrolled Nurse Auxillary.

According to Burns and Grove (2007: 324), the population sometimes referred to as the target population, is the entire set of persons (or elements) that meet the sampling criteria. For the purpose of this study the target population consisted of nurses working in the ICUs of the three selected hospitals in the Cape Metropole.

Convenience sampling which is a non-probability sampling method was utilised in this study. This method was used because the total population was relatively small.

Barker, as cited in De Vos, Strydom, Fouche & Delport(2011:224) describes a sample as 'a small portion of the total set of objects, events or persons from which a representative selection is made.' The researcher opted to use non-probability, convenience sampling. According to Burns and Grove (2005:337), convenience sampling subjects are included in the study merely because they happen to be in the right place at the right time.

3.4.1 Inclusion Criteria

Inclusion criteria are the characteristics that the subject or element must possess to be part of the target population (Burns & Grove (2005: 325).

For the purpose of this study the inclusive criteria were:
All nurses working in the intensive care units in the selected hospitals in the Western Cape metropolitan area as well as agency staff working in the ICU only.

3.4.2 Exclusion Criteria

All the nurses who participated in the pilot study and other members of the multidisciplinary team were excluded from the study

3.5 DATA COLLECTION TOOL / INSTRUMENTATION

With the assistance of a statistician, a questionnaire was designed to collect data on the contextual factors influencing turnover. Burns and Grove (2007:38) define a questionnaire as a printed self-reports designed to elicit information through written or verbal responses from the subject. An existing measuring instrument utilised by Stanz and Greyling (2010) in their study titled: *Turnover of nursing employees in a Gauteng hospital group* was adapted and adjusted to fit the current study. The questionnaire was divided into the following three sections:

Section A: Demographic Data

Demographic data was used to assess whether biological factors influenced nurse turnover. These factors include:

- Gender
- Age
- Marital status

- Years of employment
- Rank
- Education Qualification
- Employment Status

Section B: Personal data (CORE) (refer to appendix I)

The questions in this section were used to assess the physical and psychological well- being of the nurses.

- Salary
- Promotion opportunities
- Physical development
- Performance Evaluations
- Occupation Specific Dispensation
- Quality of work life

Section C: Work Environment (CARE & CURE)

A work environment that is demanding due to increased workload and poor managerial style may physically drain the nurses, affect their physical well-being, and ultimately influence turnover.

- Management that facilitates rather than directs
- Enough working equipment
- Manageable job allocation (nurse: patient ratio balance)
- Manageable workload
- Balance between working time and time away from work
- Feeling valued by the organisation
- Flexible shifts
- Effective communication between doctors and nurses
- Job challenges
- Respect and acknowledgement
- Enough working space in the unit
- Equipment easily accessible
- Workload well distributed
- Given enough responsibility

- Enough lighting in the unit
- Discrimination in the workplace
- Favouritism exists in the unit
- A professional support system exists in the unit
- Effective communication channels between staff
- Effective infection-control methods
- Does the institution frequently make use of agency staff?
- In-service training
- Is there a general psychological support system in the workplace?
- Does management provide a debriefing support system for the nurses?

3.6 PILOT STUDY

A pilot study is a procedure for testing and validating an instrument by administering it to a small group of participants from the intended test population (De Vos *et al.,* 2011:237). The total nursing database is N = 216 of all nurses. A pilot study with a sample that consisted of 10% of the total population, N=21 was used to refine the methodology for the larger study. The pilot study was conducted in one of the hospitals. It was conducted to pre-test the instruments for inaccuracies and ambiguity. The samples used in the pilot study were not included in the actual study. The results showed no inaccuracies and the questionnaire was reliable for the actual study.

Besides the testing of the instruments the pilot study revealed that remuneration, respect and lack of communication skills are a concern.

3.7 RELIABILITY AND VALIDITY

According to Burns and Grove (2007:365), the validity of an instrument is a determination of how well the instrument reflects the abstract concept being examined. They also state that the reliability of an instrument is concerned with the consistency of the measuring technique.

To ensure that the instrument measures what it is supposed to measure, a statistician was consulted to assist with adjustments made to the questionnaire. The supervisor, who is a qualified ICN and expert in health service management, and

Prof M. Kidd a statistician, assisted with the data-analysis to ensure reliability and validity.

3.7.1 Content validity

Content validity refers to the extent to which the method of measurement includes all the major elements relevant to the construct being measured (Burns & Grove 2003:535). To ensure this, the instrument was subjected to multiple revisions based on peer review.

3.7.2 Face validity

Face validity was tested by asking experts to express their opinions as to whether the questionnaire tests what it should be testing. De Vos *et al.,* 2005:161 use face validity and content validity interchangeably. De Vos *et al.* (2005:161) stated that face validity referred to "the measure instrument looks as if it measures what it is supposed to measure". The validity and reliability was determined by means of the pilot study.

3.8 ETHICAL CONSIDERATIONS

Approval to conduct the study was obtained from the Human Research Council of the University of Stellenbosch. Similar consent was obtained from The Medical Superintendent of GSH and Human Resources Management from both SH and VPH. The researcher obtained permission from the operational managers of the specified ICUs in each hospital before she handed over the questionnaires to the participants. After permission had been granted, the researcher explained the content of the consent form in detail to the participants. The researcher distributed the questionnaires to the participants and left in order to avoid bias because the researcher previously worked in one of the units. The participants were requested to hand in the envelopes with the completed questionnaire to the unit manager. A deadline date was agreed on the collection. Data was collected over a period of two to three weeks. This reduced the non-responsive factor and minimised the underrepresentation effect; therefore allowing greater generalisation of the results. The researcher collected the finished questionnaires from the unit managers.

3.9 DATA COLLECTION PROCESS

Burns and Grove (2006:41) describe data collection as a precise, systematic gathering of information relevant to the research objectives, questions or hypothesis of a study.

The researcher used a shift list or duty roster to target the participants both day and reporting night shift .The questionnaires were put in envelopes and the researcher targeted the participants at the start of the shift. During the day shift the researcher handed out the questionnaires when the unit was less busy (between 07h30 to 08h30) (Table3.2). The questionnaires were collected from 17h00 to 19h00. This provided an opportunity for the researcher to target both the day- and the reporting night staff. The first shift was on a Monday and a Tuesday (day- and nightshift) and the second shift was on a Wednesday and a Thursday (day- and nightshift). The researcher personally handed the questionnaires to the participants on each shift. The participants were instructed to deposit the completed questionnaires in a sealed box placed at the nurse's station. The researcher collected the completed questionnaires after every shift. The data collection process was conducted over 3 - 4 weeks.

Table 3.2: Strategy or the data collection plan

Intensive care units	Shift 1	Shift 2
Respiratory 1. GSH	**Week 1**.Monday day shift. Issue questionnaires 07:30-08:30. Collect17:00-19:00. Monday night shift issue questionnaires 19:30-21:00 Collect on Tuesday 06:30 the night shift questionnaires	**Week 1**.Wednesday day shift issue questionnaires 07:30-08:30 Collect17:00-19:00 Wednesday night shift issue questionnaires 19:30-21:00. Collect the night shift questionnaires on Thursday 06:30
Respiratory 2. GSH	**Week 1** follow data plan collection as for week 1	**Week 1** follow data collection plan as for week1
Surgical 1. GSH	**Week 1**: Follow the data collection plan	**Week 1**: Follow the data collection plan
Surgical 2. GSH	**Week 1:** Follow the data collection plan	**Week 1**: Follow the data collection plan
Coronary. GSH	**Week 1** : Follow the data collection plan	**Week 1**:Follow the data collection plan
Surgical 3 & Medical. VPH	**Week 2**: Follow the data collection plan as for week 1	**Week 2:**Follow the data collection plan as for week 1
General ICU. SH	**Week 3:** Follow the data collection plan as for week 1	**Week 3:**Follow the data collection plan as for week 1

3.10 DATA ANALYSIS

According to Brink (2006:170), data analysis entails categorising, ordering, manipulating and summarising the data and describing them in meaningful terms. It is a technique by which a researcher converts data into a numerical form and subjects it to statistical analysis.

The questionnaires were labelled according to the codes given to the different hospitals e.g. A, B, C. The questionnaires were checked for completion. Uncompleted questionnaires were separated from the completed ones. The completed questionnaires were entered onto a Microsoft Excel spread-sheet which was then forwarded to the statistician by e-mail.

The statistician analysed the data. Statistical associations between variables were carried out using a Chi- Square test on a 95% confidence level. Data is further presented in the form of tables and frequencies and histograms.

3.11 SUMMARY

This Chapter contains a detailed description of the goals, objectives, research approach, population and sampling, data collection analysis and interpretation

An in-depth description of the data analysis and interpretation of the research findings are presented in Chapter 4.

CHAPTER 4: DATA ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

The preceding chapter provided a detailed description of the research design and methodology. This chapter comprises a discussion of the analysis of the data. According to Brink (2006: 170), data analysis entails categorising, ordering, manipulating, summarising and describing the data in meaningful terms.

The research aim was to assess the contextual factors contributing to the turnover of nurses working in specified ICUs of hospitals in the Cape Metropole. The set objectives of the study were:

- To determine factors influencing turnover of nurses in specified hospitals indicated in the study.
- To compare the findings of the data collected in the specified hospitals.

A quantitative data analysis approach was used to analyse the data. According to De Vos *et al.* (2011:249) quantitative data analysis can be regarded as a technique by which the researcher converts data to a numerical form and subjects it to statistical analysis. He likens the process to one of translation in that the researcher presents the raw data in a meaningful picture of patterns and relationship. The purpose of reducing data to an intelligible and interpretable form is to ensure that the relations of research problems can be studied and tested and conclusions drawn.

The researcher was assisted by the supervisor and a statistician (Professor Martin Kidd) from Stellenbosch University during the electronic analysis of the data. The statistical analytical programme SAS (Statistical Analysing System) was used to analyse and present the data as histograms and tables. Statistical associations were determined between the various variables, using the Chi-square test.

4.2 DESCRIPTION OF STATISTICAL ANALYSIS

Descriptive analysis was used to present the data throughout the discussion. Brink (2006: 171) describes descriptive statistics as a method of converting and condensing a collection of data into an organised, visual presentation or picture, in a variety of ways so that the data has some meaning for the readers of the research

report. The descriptive approach employs measures of frequency distribution and measures of relationships.

The data is presented as a descriptive analysis in the form of frequency distribution tables and histograms. The advantage of graphics is that they are more aesthetically appealing, enabling the reader to analyse data more closely as opposed to data presented in written form (Brink, 2006: 184). The Chi square test was used to validate the equality of proportions across levels of variables. It was also used to test for associations between various variables of salary, promotion, performance, quality of work life and work environment, with no significant results.

The following concepts are used in the text.

- Mean- the arithmetic average of all scores in a distribution
- Mode- the value or a score that occurs most frequently in a distribution
- Median - the mid-point score or value in a group data ranked from the lowest to the highest.
- Standard Deviation- it indicates how values vary about the mean of a distribution and is defined as the square root of the variance.

4.3 DATA ANALYSIS AND INTERPRETATION

The discussion of data analysis is presented according to the flow of the questions in the questionnaire (see Annexure A). The questionnaire consisted of 3 sections: **Section A** -Demographic data (Variables 1 - 7), **Section B**-Personal data (Variables 8 – 13)and **Section C**- Work environment (Variables 14 – 38) which comprised Likert Scale - type questions ranging from the options: ‘strongly disagree’, ‘disagree’, ‘agree’ and ‘strongly agree’. The final section consisted of 3 narrative open questions.

The questionnaires were distributed to 216 participants in the following three identified hospitals: two state owned hospitals; Groote Schuur Hospital (GSH) and Somerset Hospital (SH) and Vincent Palloti Hospital (VPH) which is a private hospital. The response rate was 69% (N=150/216) which yielded the sample size of the eligible population namely; GSH (56%; n=84), VPH (32 %; n=48) and SH (12%;

n=18). The sample consisted of both male and female nurses working in the ICUs at the time of the study. The questionnaire consisted of three sections.

4.3.1Data analysis of section A and B: Demographic and personal data

Table 4.2: Gender and age distribution in the hospitals

Characteristic	Gender	SH	VPH	GSH	TOTAL (N = 150)
Question 1: Gender (n)					
	Male	n= 4 (2.7%)	n= 7 (4.7%)	n=9 (6%)	N= 20 (13.3%)
	Female	n= 14 (9.3%)	n= 41 (27.3%)	n= 75 (50%)	N =130 (86.7%)
Question 2: Age (mean)					
	Male	28.5 (29) yrs	28yrs	32.3 (32)yrs	29.8 (30)yrs
	Female	34 (34 yrs)	34.2 (34yrs)	35.0 (35yrs)	34.3 (34yrs)

Questions 1& 2: Gender and Age (Table 4.1)

Table 4.1 summarizes the demographic characteristics of the subjects. The majority of the nurses were females (n=130; 87%) as compared to 13% (n=20) males, with the mean age of 34years for the females and 30years for the males. Majority of the females 50 %(n=75) and males 6 %(n=9) were from GSH, while the least female 9.3 %(n= 14) and 2.7 %(n=4) from SH. This finding supports the data base of the SANC geographical distribution results namely a total of 109,332 female as compared to 8930 male registered nurses The Western Cape has 14035 female and 765 male registered nurses (SANC Geographical Distribution, 2011: np).

Section A: Demographic Data. Variables 1-7

Table 4.3: Subject characteristics: Marital status and Employment

Characteristic	Variable	Gender	SH	VPH	GSH	TOTAL (N = 150	Percentage
Question 3 Marital Status (Married)	Yes	Male	n= 3	n =5	n= 6	N=14	9.3%
		Female	n= 6	n =17	n= 33	N=56	37.3%
	No	Male	n = 1	n= 2	n= 3	N =6	4%

		Female	n = 8	n= 24	n= 42	N =74	49.4%
Question 4 Length of Employment	< 2 yrs	Male	n= 0	n= 4	n= 1	N =5	3.3%
		Female	n= 2	n= 7	n= 12	N =21	14%
	3-5 yrs	Male	n= 1	n= 1	n=6	N =8	5.4%
		Female	n= 8	n= 18	n=30	N =56	37.3%
	5 – 10 yrs	Male	n= 3	n= 2	n= 2	N =7	4.7%
		Female	n= 4	n= 16	n= 33	N =53	35.3%

Question 3. Marital Status (Table 4.2)

Over half of the respondents were not married 53.3 %(n=80) while the others 46.7%; (n=70) were married with females 37.3 %(n=56) the most from GSH. Majority were unmarried females 49.4 %(n=74) while 4% (n=6) were males. GSH had the majority of unmarried respondents 53% (n=47) while SH had the lowest 11% (n=9). Married respondents were highest in GSH 36% (n=39) while SH had the lowest 13%(n=9) Hayes et al. (2006: 243) found that home obligations like children, spouses and aging parents affect the work quality and turnover habits. Furthermore Kovner et al. (2009:20) found that marriage may increase family responsibility and cause work and- family conflict. This may affect the physical well- being of the nurse (care), hence increasing turnover.

Question 4. Length of Employment (Table 4.2)

Regarding length of employment, the majority of the respondents, 42.7% (n=64)had been employed between 3 - 5years at the time of the study with the majority being females working in state hospitals. Seventeen percent 17.3% (n=26) of the respondents had worked for less than 2 years, with the majority being young males while 40% (n=60) had the longest length of employment of 5 - 10 years. Most of them were females 35.3 % (n=53). Among those majority were from GSH 62% (n=33), while the least were from SH 7.5% (n=4). Haman- Fischer (2008: 201) found that older employees tend to experience higher levels of job satisfaction. Furthermore, Mokoka, 'Oosthuizen and Ehlers (2010: 497) found that older nurses emphasized rank, age and job responsibilities such as being in charge of a unit for job satisfaction

unlike the younger ones who were merely interested in getting the job done within the shortest time possible.

Table 4.4: Subject characteristics: Qualification; Employment status

Characteristic	Variable	Age	SH	VPH	GSH	Total (N = 150)	Percentage
Question 5 & 6 Rank & Qualification	Degree (Professional Nurse)	Male	n=1	n= 3	n=5	n =9	6%
		Female	n=3	n= 12	n=23	n =38	25.3%
	Diploma (Registered Nurse)	Male	n=3	n=1	n= 3	n =7	4.7%
		Female	n=8	n=14	n= 35	n =57	38%
	Certificate (enrolled)	Male	n=0	n= 2	n= 1	n =3	2%
		Female	n=3	n= 8	n= 13	n =24	16%
	Certificate (assistance)	Male	n=0	n= 1	n=0	n =1	0.7%
		Female	n=0	n= 7	n=4	n =11	7.3%
Question 7 Employment Status	Full time	Male	n = 3	n =2	n= 8	n =13	8.7%
		Female	n = 16	n =17	n= 64	n =87	58%
	Agency	Male	n= 1	n= 4	n=1	n =6	4%
		Female	n= 8	n= 20	n=11	n =39	26%
	Part time	Male		n= 1		n =1	0.7%
		Female		n= 4		n =4	2.6%

Questions 5 & 6: Rank and Qualification (Table 4.3)

Seventy four percent were registered nurses with the majority 42 %(n=64) possessing a diploma and 31.3 %(n=47) having degrees. Of these the majority were females 63.3 %(n=95). The lowest percentage 7.97 %(n=22) had an enrolled nurse assistance certificate. GSH had the highest respondents with diploma 59% (n=38) while VPH had the lowest 23% (n=15). However, SH and GSH had the highest

diploma in males 4.6% (n=3) while VPH had the lowest 2% (n=1) of the total diploma ranks. GSH had the highest number of degree ranks60% (n=28) while SH had the lowest 9% (n=4). VPH had the highest enrolled nurse auxiliary 36 %(n=8) as compared to GSH 18 %(n=4). Chan and Morrison (2000: 117) reaffirm that the majority of the registered nurses with postgraduate qualifications work in the ICUs.

Question 7 Employment Status (Table 4.3)

Sixty seven percent (66.7%) of the participants worked fulltime, 30% (n=48) were agency nurses. 3.3% (n=5) worked on part time basis only in private hospitals. VPH had the highest number of agency workers 53% (n=24) as compared to GSH 49% (n=22) and SH 2% (n=9). However, GSH had the highest number of full time nurses 72% (n=72) as compared to VPH 19% (n=19) and SH 19 %(n=19) of the total full time nurse workers.

4.3.2 Section B: Personal data (Variables 8-13)

Variable 1-2: Salary and promotion

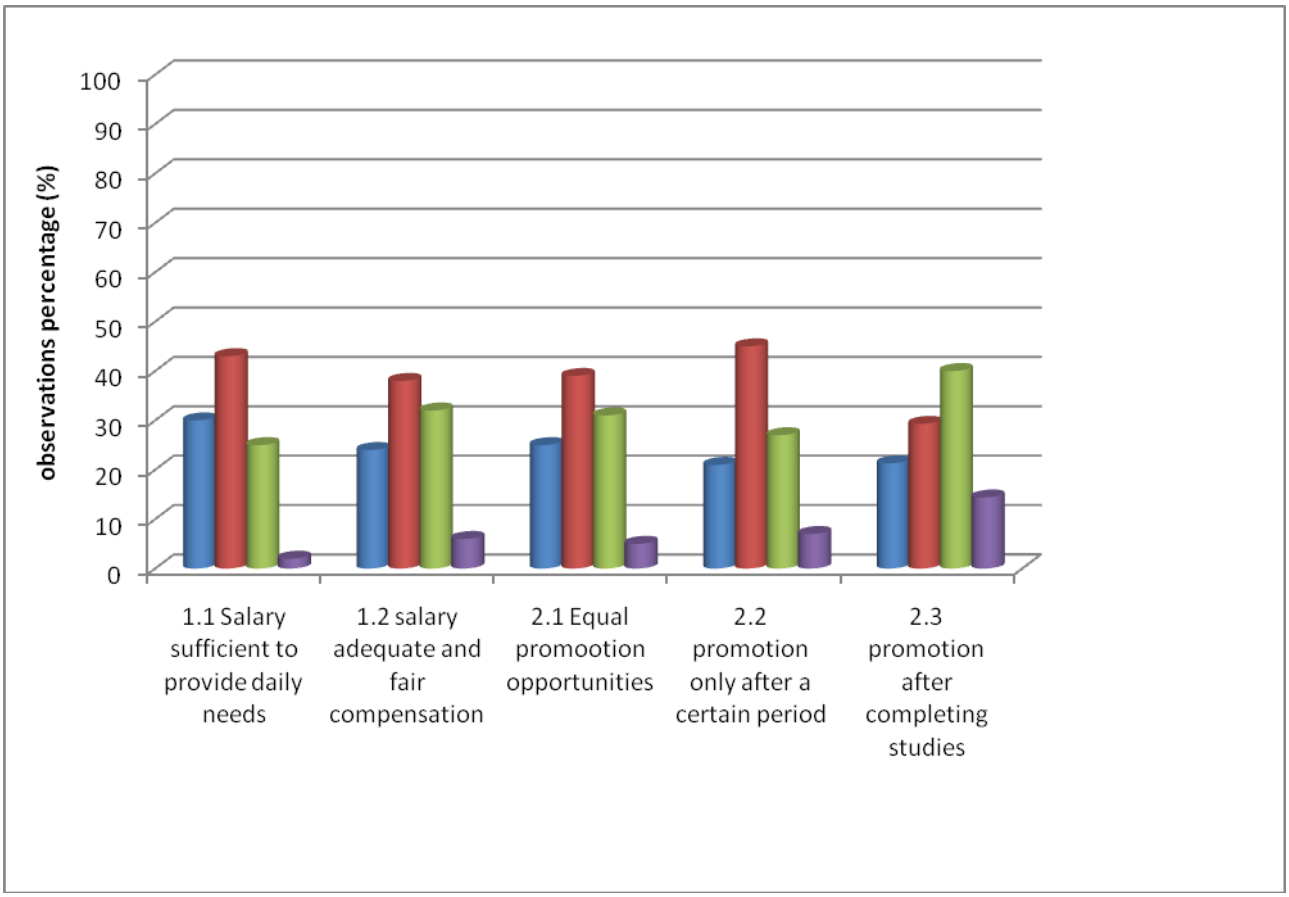


Figure 4.2: Analysis of salary versus promotion in N = 150

Nurses had to indicate whether their salaries were sufficient for their daily needs. Out of 150 respondents 73 %(n=110) disagreed, with 30 %(n=64) strongly disagreeing, and only 27 %(n=40) were content with their salaries. Stanz and Greyling (2010: 5) had found that inadequate remuneration and benefits were the major factors causing nurses to resign from their current employment. On the question of whether the salary was adequate and fair compensation, the majority, 62% (n=93) disagreed, and only 6% (n=9) strongly agreed.

On the question of whether promotion opportunities were satisfactory, the majority disagreed 64 %(n=95), while only 36 %(n=55) agreed. However, more than half of the respondents 52% (n=78) agreed that promotion should take place after a certain period with the company, with n=76(42%) disagreeing that promotion should take place after completing studies. Chanyeong *et al.,* (2010: 1297) emphasised that nurses were more satisfied with their jobs when there was a promotional opportunity to improve their quality of work life.

Variable 3: Career development and Physical development

Variables

3.1: There is staff development within the ICU i.e. job training

3.3: Enough career development and training opportunities

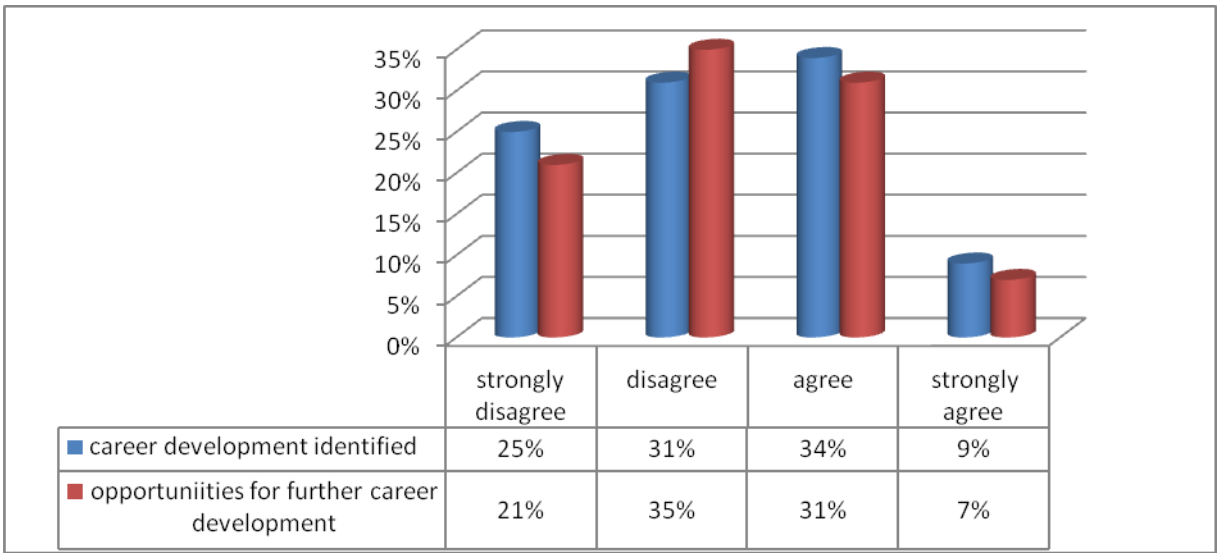


Figure 4.3: Career development and opportunities for career development (N = 150)

Opportunities for career development encouraged in the unit. Only 7% (n=14) strongly agreed on opportunities for career development, 38% (n=57) agreed on opportunities for career advancement being encouraged. De Beer *et al.* (2011: 10) found that patient care errors can occur due to inexperienced nursing staff, subsequently affecting quality of care. ICU nurses should thus have additional ICU-related qualifications to enable them cope with the high acuity of the unit (de Beer *et al.* 2011:10).

Career development within the ICU was encouraged in the unit. Forty- three percent (n=65) strongly agreed that there was career development and 57% (n=85) disagreed. Improving professional practice and enhancing nurses' clinical competence through on-going continuous education increases job satisfaction (Mokoka *et al.,* 2010:491). Nurses in South African ICUs have two options: they can either wait for their turn to be sent for training, which may take many years as it places additional stress on the nurses left behind, or they can seek access to training on their own, which can be very expensive. This demotivates the nurses, especially the young ones, who may eventually opt to leave.

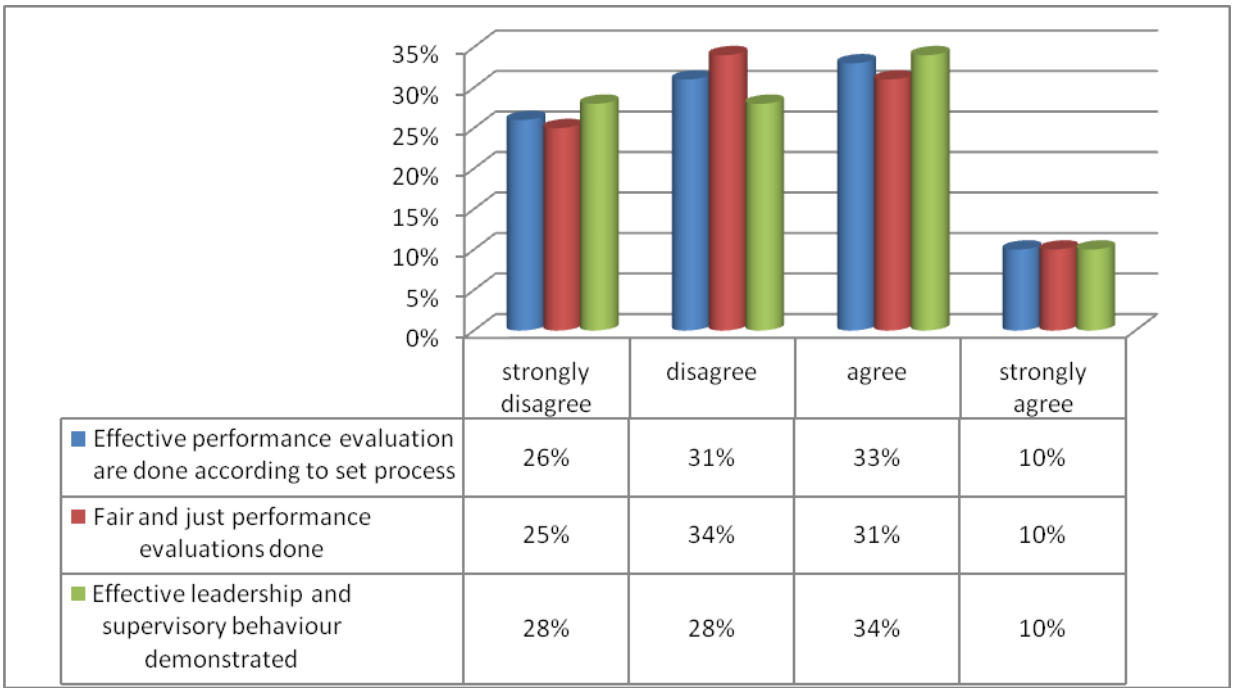
Variable 4: Performance Evaluation and Effective Leadership

Variables

4.1: Effective performance evaluations were done according to the set processes namely communication skills, performance skills and punctuality.

4.2: Fair and just performance evaluations were done.

4.3: Career development identified during performance evaluations



	strongly disagree	disagree	agree	strongly agree
Effective performance evaluation are done according to set process	26%	31%	33%	10%
Fair and just performance evaluations done	25%	34%	31%	10%
Effective leadership and supervisory behaviour demonstrated	28%	28%	34%	10%

Figure 4.4: Effective performance, evaluations and effective leadership

On whether there was effective communication, 57 %(n=85) disagreed, while 43 %(n=65) agreed. Regarding the existence and availability of fair and just performance evaluations, 59% (n=88) disagreed and 41% (n=62) agreed. On the identification of career development during evaluations, 56 %(n=84) disagreed while 44% (n=66) agreed that such identification exists. Performance appraisal procedures which tend to be inadequate, demoralise the nursing-workforce. Unfair appraisals cause misunderstandings and hostility and an employee may even feel as if he or she is being sabotaged if an evaluation is unfair (Booyens 1999: 570). This may influence turnover as the nurse experiences a lack of self- worth.

Variable 5: Occupation Specific Dispensation was allocated effectively.

Regarding the effective allocation of occupation-specific dispensations, the majority of the respondents, 77% (n=115), disagreed, while 23% (n=35) agreed. Of those who disagreed, the majority, 78% (n=117), were from Somerset Hospital while Grootte Schuur Hospital presented 76% (n=114). There was no response from Vincent Palloti Hospital, as it is a private hospital. OSD was initiated in state hospitals with the aim of introducing career progression for all categories of nurses (De Beer *et al.,* 2011: 10)

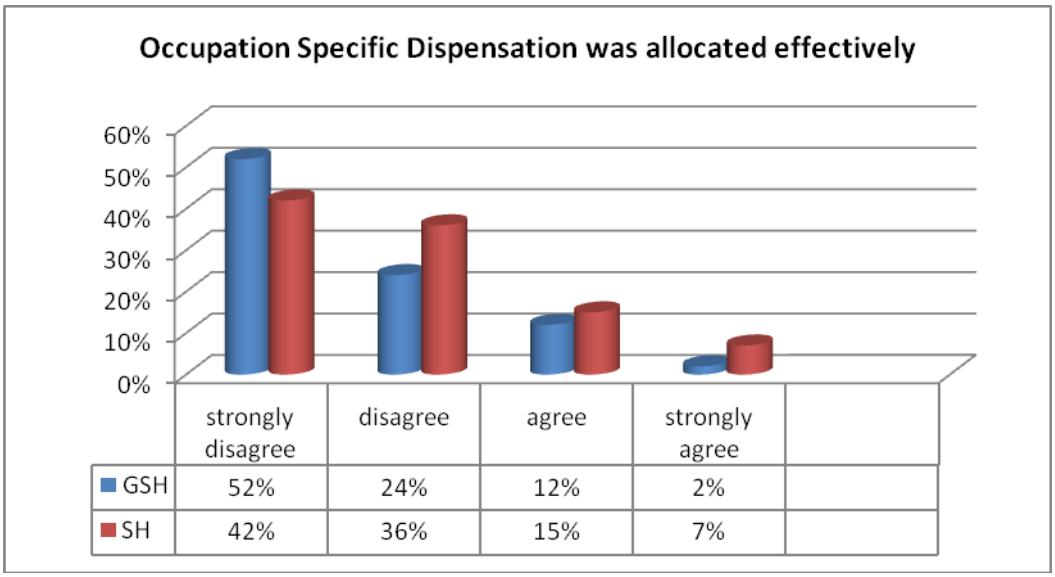


Figure 4.4: Occupation Specific Dispensation was allocated effectively

Variable 6: QUALITY OF WORKLIFE: Autonomy and Decision-making, Responsibility at work and effective communication

Variables 6.3: Participative management

6.4: Harmony in the unit

6.6: Conflicts are managed fairly and effectively

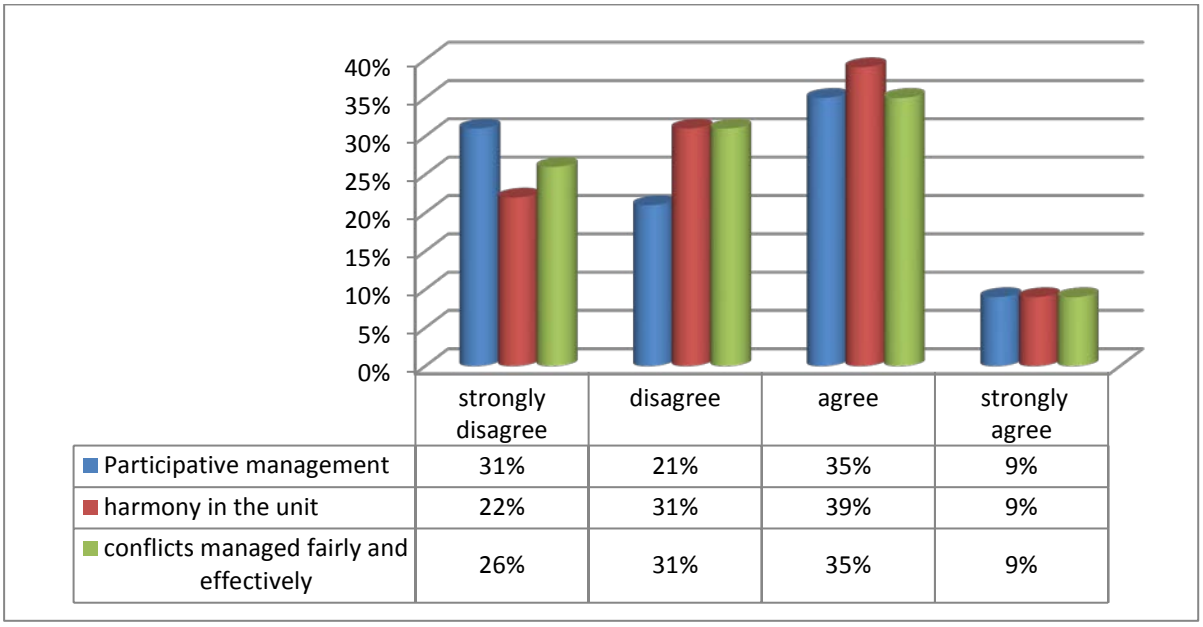


Figure 4.5: Management style, harmony and conflict management in the Unit. (N= 150)

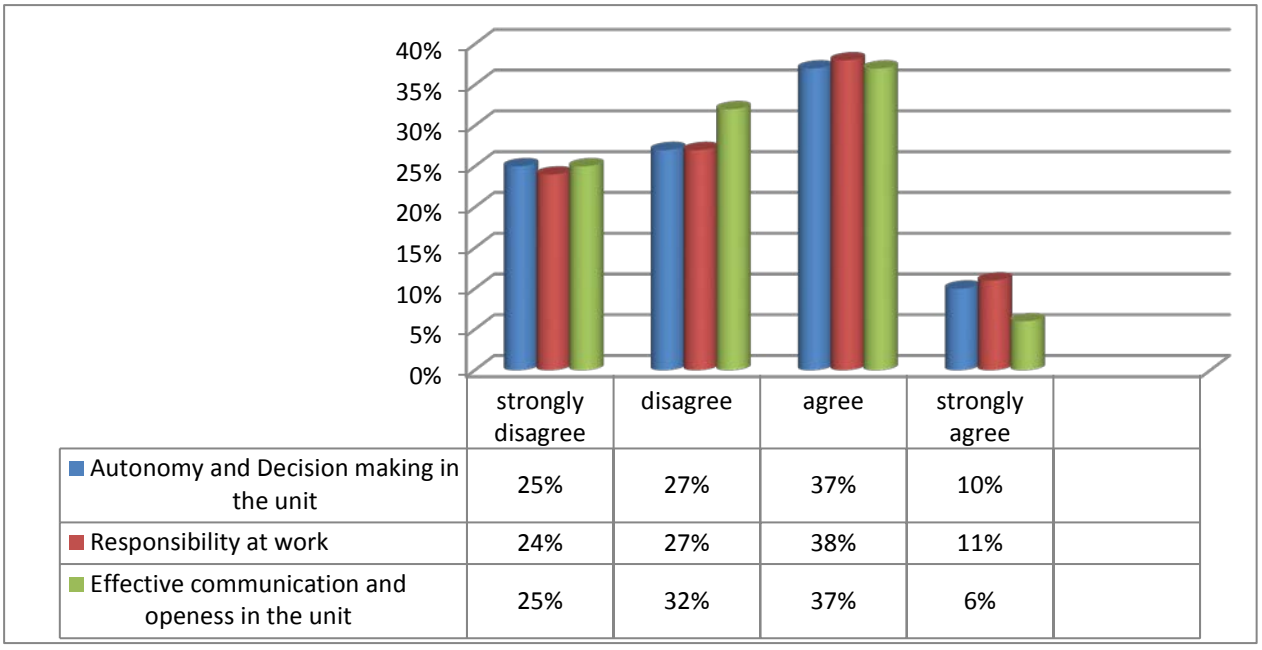
Over half of the respondents (52; n=83), disagreed that unit managers practice participative management with 31% (n=47) strongly disagreeing. Coomber *et al.,* (2007: 310) suggested that job dissatisfaction ensues when nurse managers fail to give due recognition and support regarding staff issues and neglect to address problems. The lack of participative management leads to conflict among the staff (Odendaal *et al.,* 2005: 98), ultimately resulting in a lack of harmony in the unit. This decreases the nurses' morale because of the lack of empowerment resulting from an ineffective leadership style. While 53% (n=79) disagreed on the existence of harmony in the unit, 48% (n=71) agreed that such harmony does exist. Forty-four percent n=65(44%) agreed that conflict was managed fairly and effectively. The majority, 57 %(n=85), however, disagreed. Only a small number (9%; n=13) strongly agreed.

Variable 6: QUALITY OF WORK LIFE: Autonomy and Decision-making and Effective communication

Variables 6.2: There is effective communication and openness in the unit
6.5: Provision of autonomy and decision making in the unit

Variable 20: Given enough responsibility at workplace

Discussion starts on next page (48)



	strongly disagree	disagree	agree	strongly agree
Autonomy and Decision making in the unit	25%	27%	37%	10%
Responsibility at work	24%	27%	38%	11%
Effective communication and openess in the unit	25%	32%	37%	6%

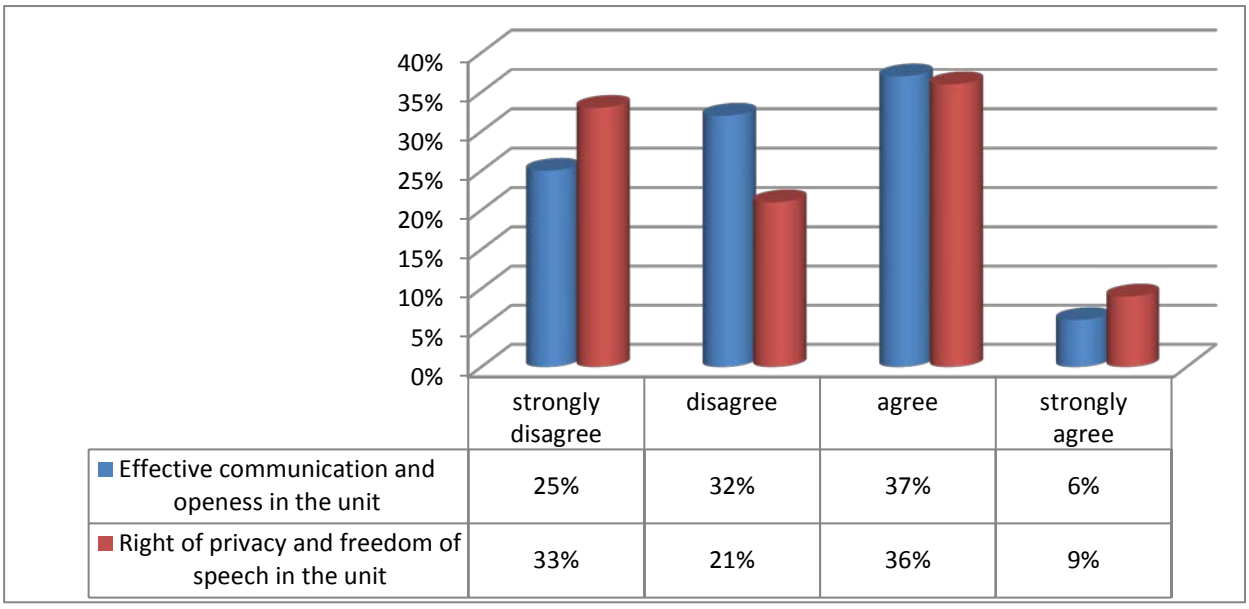
Figure 4.6: Autonomy and Decision making, Responsibility at work and Effective communication (N = 150)

The respondents (52%; n=79) disagreed that there was no provision for autonomy and decision-making in the units. Of those who agreed (47%; n=71), however, the majority (37%; n=56) indicated that they agreed, while 10 %(n=15) strongly agreed. On being given responsibility at work, there was only a small difference in percentage:51 %(n=77) disagreed while 49 %(n=73) agreed. A total of 43 %(n=64), agreed that there was effective communication and openness in the unit, while the majority 57% (n=86) disagreed. Laschinger *et al.* (2005: 8) found that the prediction for job satisfaction was autonomy and recognition by the supervisor. Open communication and participation in decision-making in the unit were also found to promote an environment that was supportive (Pillay, 2009: 53).

Variable 6: QUALITY OF WORKLIFE: Effective communication and Right of privacy

Variables 6.2: There is evidence of effective communication and openness in the unit.

6.7: Right of privacy and freedom of speech in the unit



	strongly disagree	disagree	agree	strongly agree
Effective communication and openess in the unit	25%	32%	37%	6%
Right of privacy and freedom of speech in the unit	33%	21%	36%	9%

Figure 4.7: Effective Communication and Right of Privacy (N = 150)

With regard to the right to privacy and freedom of speech existent in the unit, 45 % (n=68) agreed that it did exist, with 36 %(n=54) strongly agreeing. However, the majority of the respondents n=82(54%) disagreed. Interestingly, the same opinion was reflected when the question of effective communication and openness in the unit was asked with 57% (n=86) disagreeing and 43 %(n=64) agreeing. Odendaal *et al.* (2005: 99) had found that lack of effective communication in the units creates an environment of distrust and suspicion and is a barrier to team spirit. This kind of working climate decreases the morale and performance of the nursing staff and conflicts may occur. This reflects the prior results (Figure 4.4), where respondents disagreed that conflicts were managed effectively.

4.3.3Section C: Work environment

4.3.3.1 Management style, Communication and Professional Support

Variables 7: Management Style that facilitates rather than directs

25: Effective communication between staff

24: A professional support system exists in the unit

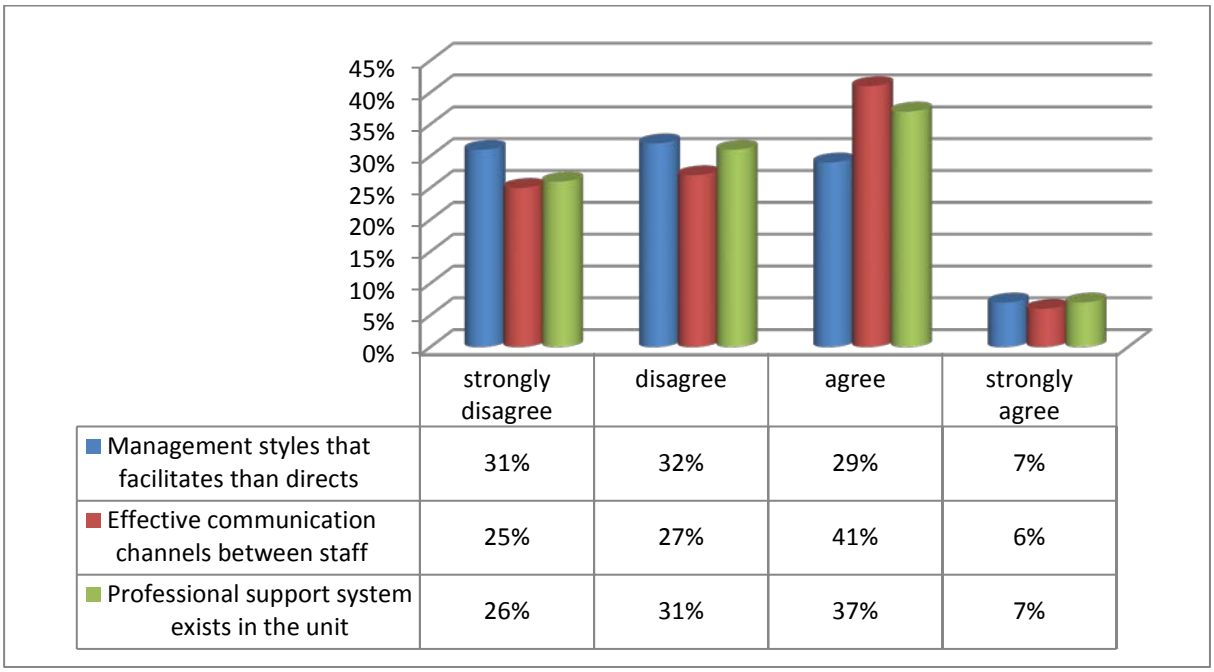


Figure 4.8: Management Style, Communication and Professional Support (N = 150)

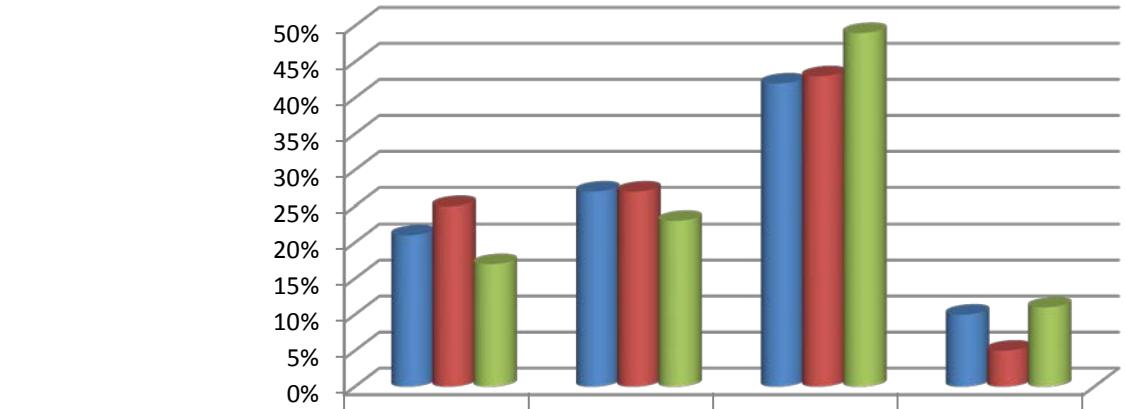
Regarding management style, the majority of the respondents 63 %(n=95) disagreed that facilitative management is applied in the unit, while 7% (n=11) strongly agreed. With reference to the presence of a professional support system, 57% (n=85) disagreed on its existence and 44 %(n=65) agreed. Interestingly, 37% (n=55) of the respondents actually agreed on the existence of professional support system in the unit. A similar opinion was also indicated in response to the question of whether communication channels between staff were explored. A little more than half, 52% (n=79), disagreed, while 47 %(n=71) agreed. Pillay (2009: 53) found that managers have a key responsibility to create an environment that is supportive and promotes open communication among staff and the participation in decision-making. Professional development should be facilitated to create opportunities for nurses to practice in a manner that is congruent with the value system of the profession.

4.3.3.2 Enough working equipment, Equipment easily accessible, enough lighting in the unit.

Variables 8: Enough working equipment in the unit

18: Equipment easily accessible in the unit

21: Enough lighting in the unit



	strongly disagree	disagree	agree	strongly agree
Enough working space	21%	27%	42%	10%
Equipments easily accesible	25%	27%	43%	5%
Enough lighting in the unit	17%	23%	49%	11%

Figure 4.9: Work Environment (N=150)

There was a positive response regarding the physical structure of the units. The majority of the respondents52 % (n=78) agreed that there was enough working space in the unit, while 48 % (n=72) disagreed. A similar, positive response, was indicated regarding the presence of adequate lighting in the unit where 59% (n=89) agreed and 40% (n=61) disagreed. However, over a half (52%; n=77), disagreed that equipment was easily accessible in the unit while 49% (n=73) agreed of which6%; (n=9) strongly agreed. Roos (2012: 9) indicates that infrastructure, equipment and supplies form a crucial part of the health care environment. An adequate working environment promotes safety and demonstrates that management cares for the nurse.

4.3.3.3 Job allocation is manageable; Balance between working time and time away from work; Flexible shifts.

Variables 9: Job allocation is manageable

11: Balance between working time and time away from work

13: Flexible shifts

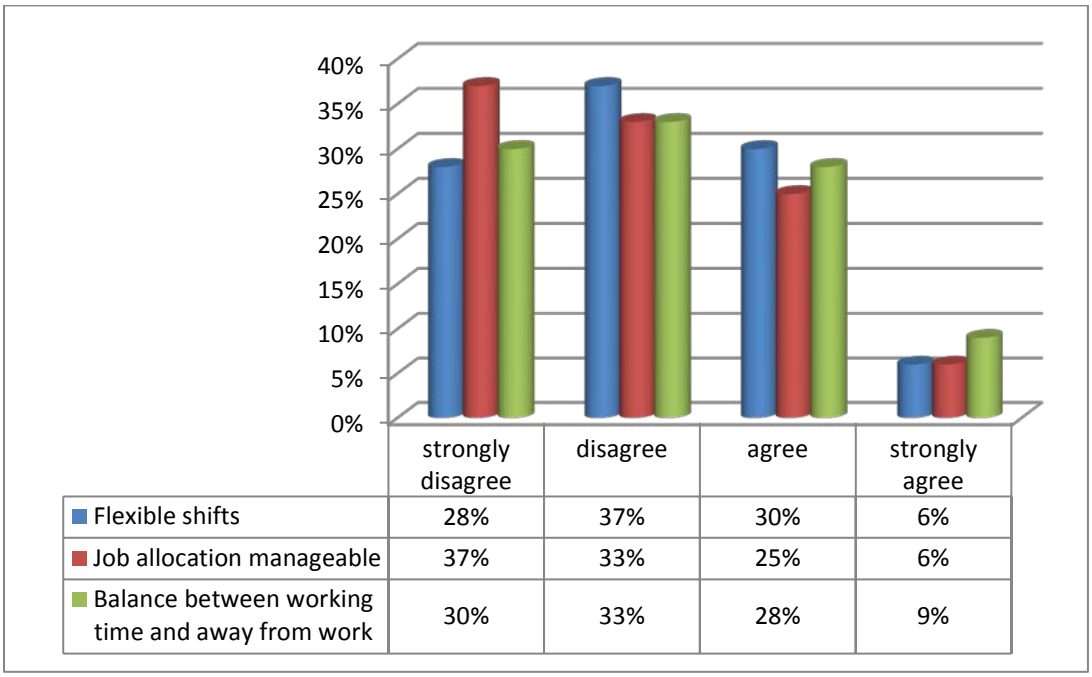


Figure 4.10: Flexible Shifts and Manageable Workload (N= 150)

On job allocation being manageable, the majority (70%; n=109) disagreed and only a small percentage (30%; n=41) agreed. However, 65% (n=96) disagreed about shifts

being flexible, while35 % (n=54) agreed. A small group (5%; n=10), strongly agreed. Similarly 63% (n=94), disagreed on there being a balance between time at work and time away from work. In total, the majority of the respondents disagreed on the work schedule, allocation and balance between work, and time away from work. This was reaffirmed by Mokoka *et al. 's.* (2010:481) whose findings reported that nurses working in Gauteng were unhappy with the long hours because this negatively impacted on their family and social lives. This core factor affects the quality of the work life of the nurse and may influence turnover.

4.3.3.4 Feeling valued by the organisation; Discrimination in the workplace; Favouritism exists in the workplace

Variables 12: Feeling is valued by the organisation

22: Discrimination in the workplace

23: The existence of favouritism in the workplace

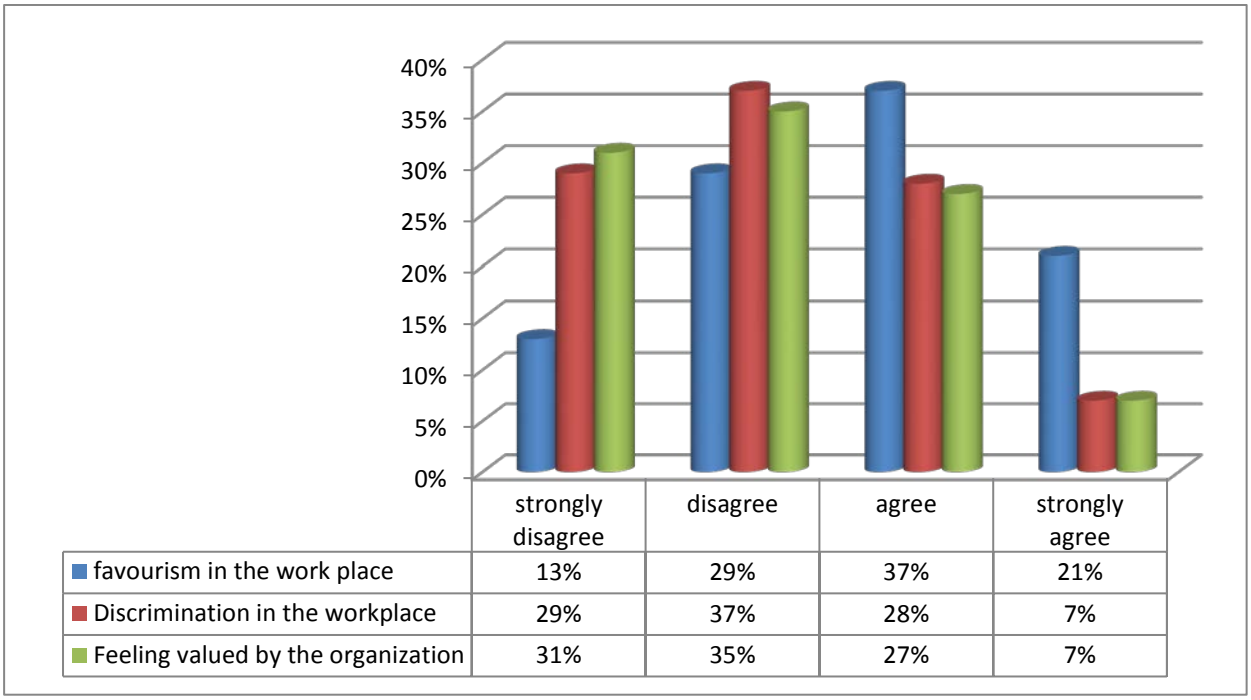


Figure 4.11: Favouritism and Discrimination in the Workplace (N=150)

Regarding the question on favouritism in the unit 58% (n=87) agreed that favouritism exists in the work unit, with 21% (n=32) strongly agreeing. However, on the question of discrimination in the unit, the majority of the respondents (66%; n=98) disagree that there is discrimination in the workplace. Many of the respondents, (66%; n=100)

disagree that they felt valued by the organisation, while 34% (n=50) agree. Only a small number (7%; n=10) strongly agree that they were valued by the organisation. (Laschinger (2005: 11) found that in an atmosphere where nurses felt that they were given the respect that they deserved by the organisation, improved their trust in management and provided greater job satisfaction. The nurses felt empowered which, in turn, promoted their self-worth and their intent to stay.

4.3.3.5 Communication and Respect

Variables 14: Effective communication between doctors and nurses

16: Respect and acknowledgement

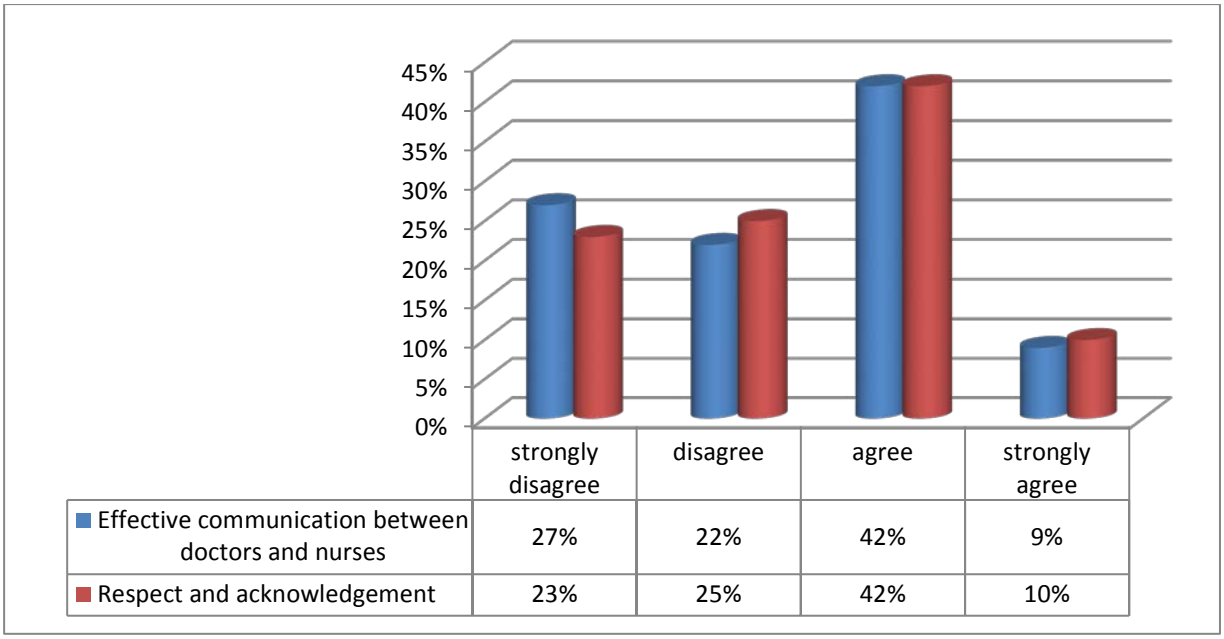


Figure 4.12: Communication and Respect (N=150)

Over a half of the respondents (51%; n=77) agreed that there was effective communication between doctors and nurses, whereas 49% (n=73) disagreed. Similarly 52% (n=78) agreed that there was respect and acknowledgement in the unit, while48 %(n=72) disagreed. Odendaal *et al.* (2005: 99) indicated that quality performance depends on the ability to interact effectively with co-workers.

4.3.3.6 Agency use, Workload and Infection Control

Variables 10: Manageable workload

26: Effective infection control methods e.g. hand washing

27: Does the institution make use of agency staff frequently?

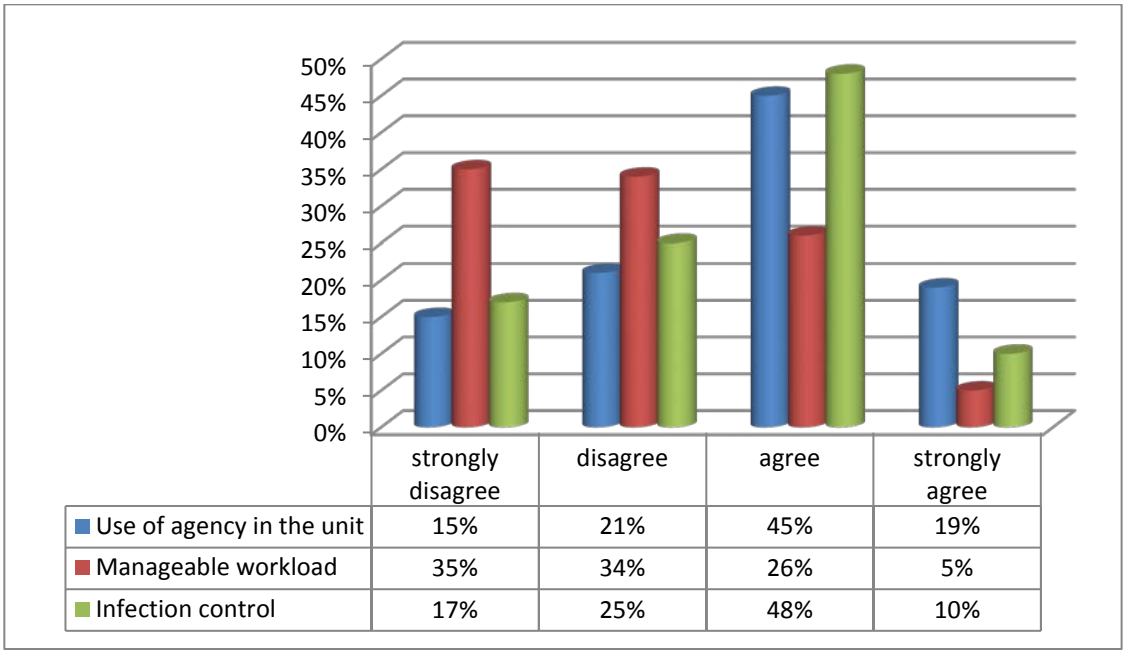


Figure 4.13: Agency use, Workload and Infection Control (N=150)

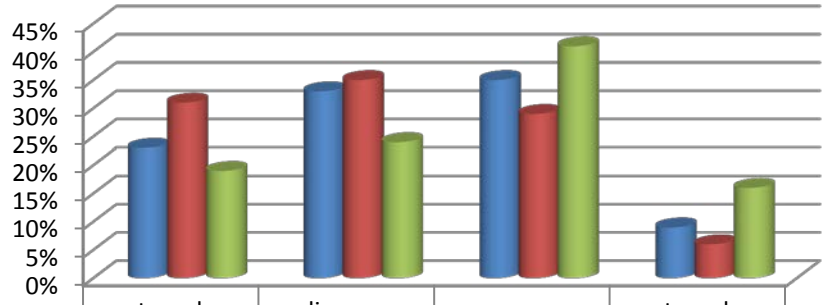
The majority of the respondents (64%; n=96), agreed that agency staff were used frequently in the unit, while 36% (n=54) disagreed. Furthermore, 69% (n=103) disagree that the workload is manageable. However, 58% (n=87) agree that there is effective infection control in the unit. According to De Beer *et al.* (2011: 8) the use of agency nurses due to an unmanageable workload in the unit resulting from staff shortages, may also pose a threat in the form of medical and legal hazards because some agencies fabricate their nurses' qualifications. This may create more conflict in the unit, as indicated in Figure 4.4. As a consequence, nurses may find themselves emotionally and psychologically exhausted, leading to an inadequate quality of patient care.

4.3.3.7 Psychological and Debriefing Support and Service Training

Variables 28: Are the staff encouraged to attend in-service training programmes?

29: Is a general psychological support system provided for all the staff members?

30: Management provides a debriefing support system for nurses working with death and dying patient in the ICU



	strongly disagree	disagree	agree	strongly agree
Provision of general psychological support system	23%	33%	35%	9%
Debriefing support system for nurses dealing with dying patients	31%	35%	29%	6%
Staff encouraged to attend in service training	19%	24%	41%	16%

Figure 4.14: Psychological and Debriefing Support and Service Training (N = 150)

With reference to psychological and debriefing support and service training (Figure 4.13), 56% (n=84) disagreed on psychological support being provided in the unit and 66% (n=98) disagreed on there being a debriefing support system for nurses dealing with dying patients in the unit. Moreover, 43 % (n= 64) disagreed that there was staff encouragement to attend in-service training in the unit, while 56 % (n=76) agreed. Odendaal (2005: 98) suggested that registered nurses, who possess postgraduate qualifications in both ICU and psychiatry, should be employed in the ICU to assist traumatised nurses who find it difficult to deal with the death of patients. The lack of caring for the nurse may lead to emotional stress and, ultimately, turnover.

4.3.3.8 Analysis of salaries between hospitals

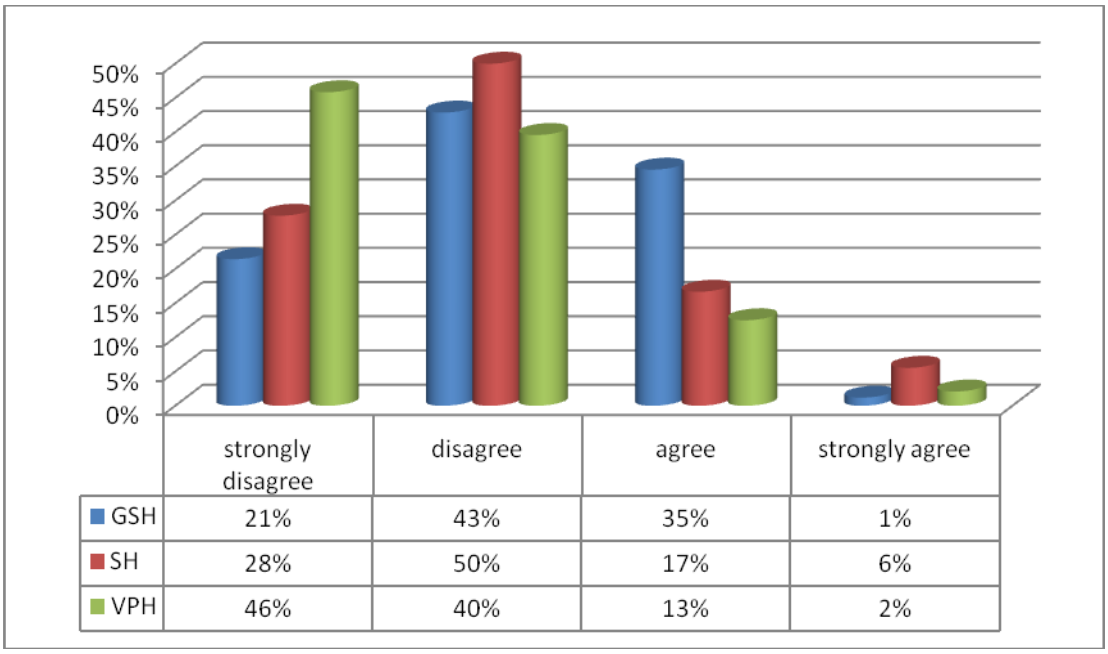
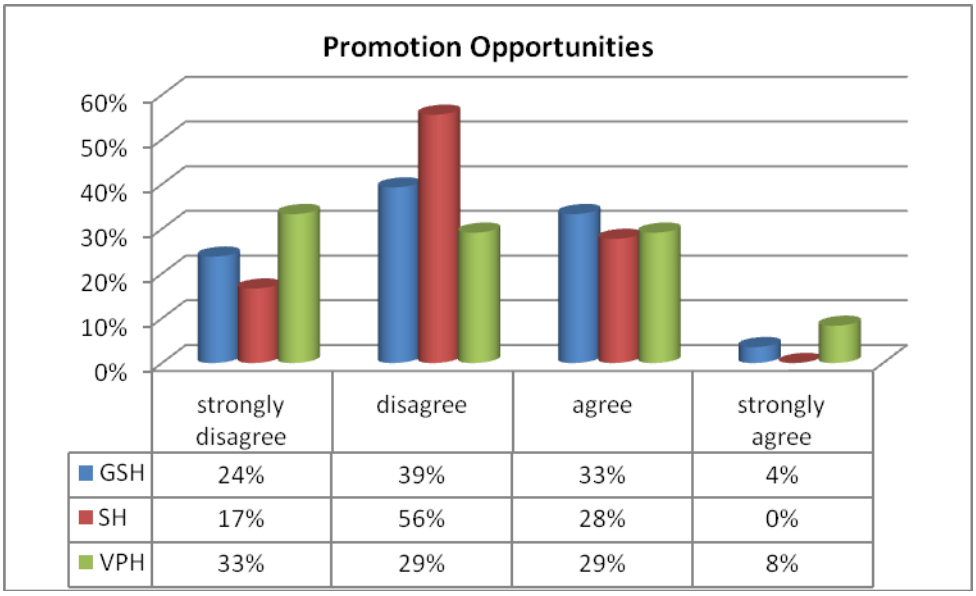


Figure 4.15: Analysis of salaries between hospitals

Regarding salaries between hospitals (Figure 4.14), most respondents (76%; n= 108) disagree that salaries are competitive. Only a small number (24%; n=42) agree, with the highest percentage (36%;n=54), being from GSH. However, the highest percentage to disagree was 86% (n=21) from VPH. Mokoka *et al.* (2010:482) identified the fact that competitive salaries, performance bonuses and scarce skills remuneration promoted job satisfaction.

4.3.3.9 Analysis of promotion opportunities and different ranks in the three hospitals.



	strongly disagree	disagree	agree	strongly agree
GSH	24%	39%	33%	4%
SH	17%	56%	28%	0%
VPH	33%	29%	29%	8%

Figure 4.16: Promotion Opportunities (N=150)

With reference to promotion opportunities (Figure 4.15), 64 %(n = 96) disagreed that there were equal promotion opportunities, while 36% (n = 54) agreed. The highest percentage to disagree (72%; n = 13) was from SH, followed by GSH (63%; n = 53) and finally VPH (62.5%; n = 30). VPH had the highest number (37.5%; n = 18) who agreed, followed by GSH (37%; n = 31), while SH had the lowest, with only 28% (n = 5) agreeing. Chanyeong *et al.* (2010: 1297) found that nurses were more satisfied with their jobs when there was an opportunity for promotion. The lack of promotion opportunities demoralises nurses, thereby affecting the caring aspect.

4.3.3.10 Ranks in Hospitals

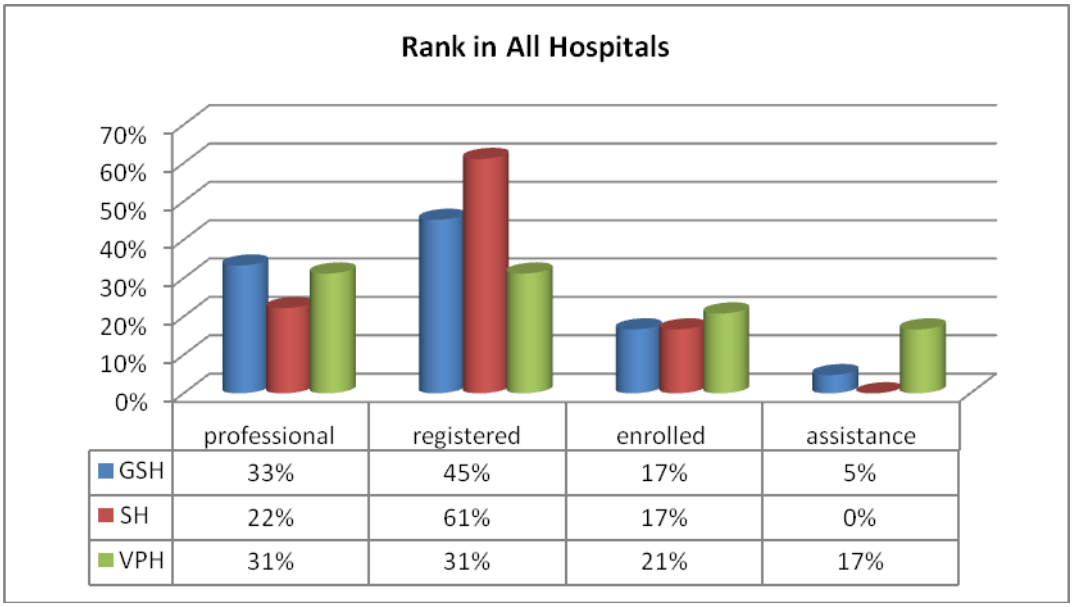


Figure 4.17: Ranks in Hospitals (N=150)

Figure 4.16 illustrates that out of the three hospitals, the highest percentage of registered nurses (61%; n = 11) were from SH, while the lowest was from VPH (31%; n = 15). GSH had the highest percentage of professional nurses (33%; n = 28) while the lowest was SH 22% (n = 4). However, VPH had the highest percentage of certificated and enrolled nurses at 21 % (n = 10), and enrolled nurse-assistants at 17% (n = 8). There were no enrolled assistant nurses at SH.

The questionnaire had three open questions. Two questions emerged, one related to the dissatisfaction about remuneration and another related to an unfriendly work environment. One participant was quoted as saying, "W*e need better working conditions in the hospitals and management to start working on nurses' morale*." Another one was quoted saying, "*Training opportunities and staff do not understand each other's behaviour due to poor management.*" A third participant was quoted as saying, "*There is an increased workload due to higher absentee- rates, financial difficulties, unfair labour practices from top managers and no support system for domestic problems.*" This indicates that issues relating to an unfriendly work environment and dissatisfaction with salaries were the major factors which may have influenced turnover (Hayes *et al.*, 2006:340, Stanz & Greyling, 2010:5).

4.3.4 Discussion

The objective of the study was to determine the factors influencing the turnover of intensive-care nurses and to compare the findings of the data collected from nurses working in intensive care units in specified hospitals in the Cape Metropole. These factors were demographic, salary/ promotion performance and work environment.

Findings from the research showed that there was 87% more female than male nurses (Table 1 and 2). This finding supports data from the SANC geographical distribution results, where the report revealed that 109332 females and 8930 males were registered nurses in South Africa, with the Western Cape totalling 13678 females and 641 males (SANC Geographical Distribution, 2011: np).

The result of the present study also revealed that the majority (74%; n=111) were registered nurses. Chan and Morrison (2000:117) reaffirm that more registered nurses who possess postgraduate qualifications work in the ICUs.

The findings of this study demonstrated that the main factor influencing turnover was unhappiness or discontent with salaries. Figure 4.1 (pg. 52) reveals that 73% of the nurses disagreed that their salaries were adequate. This is nevertheless not surprising because other studies have also supported this notion. (Stanz & Greyling, 2010:5, Hayes *et al.* 2006: 239).

Promotional opportunities available to the nurses in the three hospitals are of concern because the staff feels that promotions are infrequent (Figure 4.1, pg. 52). Furthermore, nurses are seldom sent for further training, which creates greater shortages of skilled ICNs (Figure 4.3, pg.57) (De Beer *et al.*, 2011:10), consequently creating more stress and a greater workload for the remaining nurses. Kwak *et al.*(2010:1297) emphasise that nurses are more satisfied with their jobs when there is an opportunity for promotion, improving the quality of their work life.

Regarding the quality of work life, it was clear from the evidence that dissatisfaction centred around the lack of feedback on reported problems due to the non-participative leadership styles of management (Figure 4.4, pg.58). The nurses also reported poor communication, lack of harmony and conflicts in the unit. Coomber *et al.*(2007: 310) suggest that job dissatisfaction ensues when nurse managers fail to

give due recognition and support, disregarding staff issues, and when they neglect to address problems.

Laschinger *et al.* (2005:8) found that autonomy and recognition by supervisors were the main predictors of job satisfaction. It is clear from this research that the nurses were not given autonomy, respect and acknowledgement by their supervisors in the target units (Figure 4.5, pg. 59 and 4.11, pg. 65). According to Pillay (2009:53), managers have a key responsibility to create an environment that is supportive and promotes open communication as well as participation in decision-making.

Moreover, flexible shifts and balance between work and home were indicated as factors that may influence turnover. Hayes *et al.* (2006:243) had found that long shifts, night shifts and weekend shifts, were predictors of nurse turnover, especially when nurses had young children. Furthermore, Hayes *et al.*(2006:241) also reported that job stress and ineffective nursing leadership style influenced turnover. Similar factors were indicated in this study (Figure 4.7, pg. 61). Clearly then, a management style that facilitates, instead of directing or giving orders, promotes a good working relationship and job satisfaction.

Another area of concern was physical and emotional costs experienced in the work environment. The nurses indicated that they felt overworked and that there existed a lack of professional and psychological support systems in the unit (Figure 4.7, pg.55; Figure4.12, pg. 66 and Figure4.13, pg. 67). Daly (2012: 10) mentioned that employee assisted programmes like fitness centre facilities and medical aid bonuses could assist employees to combine their work- and personal lives. Furthermore, Odendaal (2005:98) suggested that registered nurses with ICU and psychiatry qualifications should be employed to deal with traumatised ICU nurses. This study has also revealed that nurses in the ICUs felt overworked, as demonstrated by the constant use of agency staff (Figure4.12 pg.66).

The questionnaire had 3 open questions. 2 themes emerged – one of dissatisfaction with salaries and another relating to the existence of an unfriendly work environment. A majority agreed that there should be improved salary remuneration and better working conditions.

4.4 SUMMARY

In this chapter, the data was analysed and interpreted using the factors of demography, salary, promotion, performance, quality of work life and work environment. There was overall agreement among the nurses that the majority were dissatisfied with the factors influencing turnover. The results relating to salary and promotion (Figure 4.1 pg.52) show that the overwhelming majority of the nurses are in fact of the opinion that one of the most common reasons for turnover is dissatisfaction with remuneration. Moreover, respondents were dissatisfied with promotion opportunities in their workplace (Figure 4.1 pg.52).

Unfair and unjust performance evaluations (Figure 4.2 pg.52) were seen as another factor that may be influencing turnover. With regards to work environment, the working environment was unfavourable for most nurses particularly in terms of management (Figure 4.7 pg. 61), shifts and workload (Figure 4.9 pg. 63, Figure 4.12 pg.66 and Figure 4.13 pg. 67). Unfavourable work environments affect the quality of work life as confirmed by the results (Figure 4.4 pg.41, Figure 4.5 pg.41 and Figure 4.6 pg. 42). These factors may have a detrimental outcome on the nurse turnover in the ICU.

In the following chapter, the findings are discussed in relation to the relevant literature and the objectives set for the study. Some findings will be discussed in general to relate to the conclusions drawn and recommendations made. Conclusions will be drawn and recommendations made regarding turnover and the influence of the identified factors within the ICU environment on staff will be discussed.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION.

In the previous chapters, the researcher defined the purpose of this study, presented an in-depth literature review, and described the applicable research methodology and data analysis. In this chapter, conclusions drawn from the analysis will be discussed and put into perspective based on how they compare with the study objectives. Recommendations will be proposed based on the data analysis and discussion.

5.2 CONCLUSIONS

The objectives set for this study were to determine the factors influencing staff turnover at ICNs. Specifically, the study assessed the contextual factors that may contribute to the turnover of nurses working in the ICUs of specified hospitals in the Cape Metropole. These contextual factors have a core impact on the nurses' well-being, both physically and psychologically, and ultimately affect the delivery of quality patient care.

5.2.1 Objective 1: Factors that may influence turnover.

The first objective of the study was to determine factors that may influence turnover of ICNs. In **Section B** of the questionnaire, nurses were asked to respond to questions relating to salary, promotion, physical development, performance evaluation, quality of work life and the work environment.

With regards to salary and promotion (**Fig 4.1, pg.52**), the respondents felt that promotion opportunities should be available and that salaries should be adequate.

With regards to promotion (**Fig 4.1, pg.52**) and performance evaluation (**Fig 4.2, pg.52**), the nurses felt that effective leadership should be demonstrated and that good performance should be rewarded. The association between promotion and performance evaluation was identified, in that respondents felt that performance evaluations were unfairly conducted and that there was a lack of career opportunities and insufficient remuneration. The results indicated that nurses were dissatisfied with their salaries, which they deemed inadequate. This has been found to be a major factor leading to the intent to leave (Stanz & Greyling, 2010:5).

When it came to the quality of work life (**Fig 4.4, pg.58**), nurses opted for a participative management style with effective conflict-management. An association was identified between participative management and conflict-resolution. Nurses felt that there was a lack of participative management, and ineffective conflict resolution. Effective and constructive management leads to personnel growth and increases the quality of work life for the nurse (Meyer, Naude & Van Niekerk, 2009:205).

In relation to duty, shift and patient allocation (**Fig 4.5, pg.59**) 52 %(n= 74), of the respondents indicated that they preferred autonomy, participative decision-making and openness in the unit. According to (Roos, 2012:5) this allows nurses the opportunity to plan and schedule their tasks as they choose to, promoting the quality of their work life.

The results obtained express the nurses' dissatisfaction with salaries, benefits and promotion opportunities and show that nurses would prefer a better quality of work life.

With reference to work environment (**Fig 4.7, pg.61**) and career development (**Fig 4.3, pg.57**), the results indicated that nurses valued professional support and career development opportunities. There was a statistically significant ($p<0.01$) association between the provision of professional support and career development opportunities and nurses' morale. The recommendation is that these should be provided to nurses to promote morale, thus making it possible to provide quality care to the patient. According to Pretorius and Klopper (2011:70), knowledge is a dynamic in context of critical care as it is related to the ambition and drive of the nurses' identity.

With regard to the working environment (**Fig 4.8, pg.62**) the majority of the nurses concurred that good lighting and enough working space should be provided in the unit. However, 52 %(n=77), disagreed that the equipment was not easily accessible. Favourable working conditions enable personnel to provide quality care to the patient (Meyer *et al.,* 2009:216) and enhance the nurse's physical safety.

Moreover, the outcome shown in (**Fig 4.9, pg.63**) revealed that nurses preferred flexible shifts and a balance between work and home life. This, in turn, promotes

work- and home life relationships and subsequently improves the nurses' psychological well-being.

The results in (**Fig 4.11, pg.65**) revealed that communication between the doctors and the ICNs was important and that nurses wanted to be respected. Performance depends on the ability to interact effectively with the co-workers (Odendaal *et al.,* 2005:99). Open communication and respect by doctors for nurses' decisions, create a positive environment for the nurses (Pretorius *et al.,* 2011:70).

On the use of agency nurses, it can be seen that 69 %(n=103), **(Fig4.12. pg. 66),** of the nurses experienced an unmanageable workload and disapproved of agency nurses being employed in the unit. Appropriate staffing is an important element in patient safety and the well-being of nurses. However, the regular use of agency nurses often causes disruption in the nursing teams, decreasing the quality of patient care (Pretorius *et al.,* 2011:71). Managers need to be concerned not only about the work being done, but about the well- being of nurses as well.

Regarding debriefing support, 66**%** (n=98) **(Fig 4.13, pg.67**) of respondents agreed that hospitals have no set debriefing systems in place. Debriefing sessions are essential as many of the nurses are often under a great deal of emotional and psychological stress because they work with seriously ill or dying patients. Support systems should therefore be made available in the unit to promote the psychological well-being of the nurses. Results in (**Fig 4.7 pg.61**) show that 57% (n=85) of nurses are exposed to psychological trauma due to a lack of professional support. A strong support system creates a positive working environment and results in nurses being motivated (Odendaal *et al.,* 2005:100).

5.2.2 Objective 2: Comparison of Findings within the specified hospitals .

The second objective of the study was to compare the findings of the study:

The Spearman rank (rho) orders correlation was used to show the strength of the relationship between two continuous variables. A positive correlation is denoted by a + sign and a negative correlation by –, a minus sign. The values of correlation

coefficient range from +1 to -1, where +1 implies perfect correlation, 0 implies no correlation and -1 implies a perfect negative correlation (Brink, 2006:180).

As can be seen in (**Fig 4.14, pg.68**), 72% (N= 108) of the respondents were dissatisfied with salaries in all three hospitals. There was a significant correlation **rho = 1.0132** between salary/ remuneration and the well-being of nurses. The respondents believed that better remuneration would promote their well-being at work. This has indeed been shown to be true - better remuneration improves the quality of work life (Mokoka *et al.,* 2010:482).

The results showed that there was a lack of promotion opportunities in all three hospitals **(Fig 4.15, pg.69)**.The nurses experienced a lack of equal and consistent promotion opportunities **(rho= 1.2283)** and wanted promotion opportunities to be available to promote their psychological and physical well-being, consequently promoting the quality of patient care. Caring for the nurse through the offering of promotion opportunities may improve the nurse's' psychological and physical well-being. A positive work environment where adequate remuneration is provided takes care of the nurse and may, therefore, reduce turnover.

The results in (**Fig 4.16, pg.69)** showed that the ranks in all the hospitals were evenly distributed. However, the results of (**Fig 4.14, (pg.68) Fig 4.15,(pg.69) and Fig 4.16, (pg.69)** showed that both private and public hospitals experienced similar problems with regard to salary dissatisfaction, lack of promotion opportunities and an unfriendly work environment. Indeed, respondents to the three open questions in the questionnaire revealed two categories. It emerged that some of the respondents were dissatisfied with their salaries and felt that their work environments were unfriendly. A majority agreed that remuneration and working conditions need to be improved.

Recommendations: With reference to the above findings as explained the participants should be evaluated on a regular basis to determine the level of workload which could be an indirect cause of staff resignations. Adjustments to salaries could be considered as determined per current market level. Staff working temporary should be considered for permanent post which can create a more stable working environment this could contribute to delivery of better nursing and patient

care. Regular Job satisfaction surveys could assist the unit manager to identify barriers or short comings within the workplace which may motivate staff as they felt cared for (caring for the carer).

5.3 SIGNIFICANCE OF THE STUDY.

The high turnover of ICNs is a problem in South Africa. This research identified factors such as salary dissatisfaction, lack of promotion and career opportunities, and an unfriendly work environment as some of the factors that have an impact on ICN turnover, and subsequently, quality of patient care. By identifying these factors and caring for nurses by improving and catering to their needs, the quality of care for patient will improve and alleviate the high ICN turnover as well. Furthermore, the improvement of remuneration packages, working environments, and the availability of career development programmes and opportunities, may motivate the nursing staff, ultimately enhancing patient care.

5.4 LIMITATIONS OF THE STUDY.

A limitation of this study is that it was conducted in an urban setting, necessitating the need for caution in generalising the study-findings. In addition, only one private hospital was selected for the study, and the results can therefore not be generalised. The researcher experience problems with accessibility in tertiary and private healthcare institutions initially selected to be included within the study. This barrier influenced the sample selection method and size and is of great concern to the researcher. The accessible population were as identified in the study and all staff was selected to partake within the study. The researcher could not generalise the study due to this limitation.

The study focused on ICNs only. As such, the findings may not be regarded as a generalisation for other multi- disciplinary teams. The above mentioned limitation of accessibility into healthcare centres due to staff shortages has left the researcher with no option but to choose a convenience-sampling method. This method used in

this study may predispose to bias due to the lack of control over the subjects; different approaches could therefore be recommended for future research.

5.5 RECOMMENDATIONS RELATING TO THE OBJECTIVES.

Recommendations are made based on the findings above within the two set objectives as discussed above.5.2.1. and 5.2.2.

From the results of the study, it is clear that many factors may influence turnover of ICNs. The results showed that nurses were dissatisfied with their salaries, organisation and work environment. All the recommendations in this research study have their basis in the scientific evidence provided by the results generated in the study findings.

The working climate in the ICU can be stressful. Creating a positive environment promotes stress relief an improved self- worth (Odendaal *et al.*, 2005: 100) and promotes quality of work life, thus alleviating shortages and improving the quality of patient care (Meyer *et al.,* 2009:213).

The findings in this study indicate that nurses are dissatisfied with their salaries; management should therefore implement salary remuneration programmes as this will promote job satisfaction (Hayes *et al.,* 2006:240). Stanz and Greyling (2010:4) indicate that poor salaries and benefits were the major factor affecting ICN turnover. Regarding promotions, the results showed that promotion opportunities, as well as fair performance evaluations, were not readily available in the work environment. Effective, open and honest performance evaluation forms the basis of trust between the nursing manager and the staff (Meyer *et al.*, 2009:220). According to Mokoka *et al.* (2010:490), the best places to work at are places where nurses are provided with training and opportunities to develop. Furthermore, career development and lifelong learning activities promote nurses' job satisfaction, create retention and enhance high quality patient care (Hayes *et al.*, 2006:342). The researcher recommends that management should establish a salary reviewing policy, career development programmes, promotion opportunities and safe working environments.

Nurses also indicated that the work environment was stressful. To promote a conducive work environment, the unit manager should practise good leadership by

involving all staff in decision-making, creating an atmosphere of respect and trust by involving the nurses in the daily routine of the unit, thus enhancing empowerment to nurses (Laschinger *et al.,* 2005:12). Empowering the nurse brings about a sense of belonging and control. The unit should have adequate equipment with good accessibility as this enables the nurse to concentrate better on the task at hand while monitoring the patients. This gives the nurse a sense of control of the situation (Pretorius *et al.,* 2011:69).

The results revealed that a lack of openness and effective communication exists in most of the units. Unit managers should be accommodating, and be approachable and open to communication. The researcher recommends that climate meetings and feedbacks should be regular and facilitated by the manager. Information should be easily accessible to all staff and be presented in good, legible writing, and displayed effectively on the unit advertisement boards. The manager should regularly update the staff on workshops, seminars, and any new procedures. The manager should not be judgmental, especially when solving conflict in the unit as these demoralises the nurses and demonstrates a lack of respect. Managers have a responsibility to create a positive environment that is open to communication (Pillay, 2009:53).

Nurses also indicated that shifts were not flexible, and workloads were unmanageable with no home - work balance. Nurse Managers should involve the nurses during duty allocation, and allocate duties according to the set workload and qualifications. Self-scheduling strategies tend to promote a balance between work and home for nurses, especially for those with young children (Hayes *et al.,* 2006:242). Nurses also indicated the presence of a lack of respect and acknowledgement in the unit. The nurse managers should give recommendations where applicable. Rewards such as extra allowances, certificates or badges, or sending the nurse to conferences, motivates the nurse.

Nurses also drew attention to conflict in the unit. By being neutral in settling disputes, nurse managers can create an atmosphere of trust within the unit. Workshops that include the promotion of self-knowledge, self-awareness and discovering one's weaknesses should be attended as these enhance trust and commitment among the staff (Iwu, AIIen-lle & Ukpere, 2012:1054).

Another important aspect discovered through this study was the lack of debriefing and professional support systems for ICNs. Management should create recreational facilities in the hospitals, such as yoga classes, for example. In addition, management should also consider making available qualified counsellors for debriefing sessions. This will give nurses the opportunity to verbalise their experiences, especially after a traumatic experience (Odendaal *et al.,* 2005:98).

5.6 RECOMMENDATIONS FOR FURTHER RESEARCH

Further research involving other state-owned and more private hospital groups across South Africa, is recommended. Moreover, further studies should also involve hospitals that are not situated in urban areas. Furthermore, research comprising of multi- disciplinary teams is encouraged as this may identify other factors affecting ICN turnover in the ICU. A qualitative study approach is recommended because it may identify more in-depth information provided by participants.

5.7 CONCLUSION

The key challenges facing intensive care nurses and high ICN turnover in South Africa have been shown to be uncompetitive salaries, unfriendly working environments, and a lack of promotion and career opportunities. Therefore, enhancing the nursing image and improving the quality of work life by creating a harmonious workplace will promote the care aspect of the nurse. A positive work environment will make the nursing workforce feel valued, enhancing the core aspect where nurses feels confident, and as a consequence, improve the quality of care given to the patient. Moreover, nurses who are physically, economically and socially healthy in their jobs may opt to stay and this may decrease turnover.

REFERENCING

Aitken, L.H., Sloane, D.M., Cimiotti, J.P., Clarke, S.P., Flynn, L., Seago, J.A., Spetz, J & Smith, H.J. 2010. Implications if the California nurse staffing mandate for other states. *Health Service Research Journal,* 38(8):1-16

Alameddine, M., LaPorte, A., Baumann, A., O'Brien-Pallas, L., Mildon, B & Deber, R. 2006.Stickiness and inflow as measures of the relative attractiveness of various sub-sectors of employment.*Social, Science and Medicine Journal,* 9(63):2310-2319

Alison, M., Meg, J., Clara, S., Ayse, P., Yulan, L., &Kihye,H. 2011. Nurses' Work Schedule Characteristics, Nurse Staffing and Patient Mortality.*Nurses' Research Journal,*60(1):1-8

Bateman, C. 2009. Legislating for nurse/patient ratios 'clumsy and costly'- experts. *South Africa Medical Journal,* 99(8):565-568

Baumann, A. 2010.The impact of turnover and the benefit of stability in the nursing workforce*. International Council of nurses,* 10(2):10-25

Bhagwanjee, S., Scribante, J. 2007.National audit of critical care resources in South Africa – unit and bed distribution.*South African Medical Journal,* 97(12):1311-1314

Booyens, S.W. 2002. Dimensions of Nursing Management.2nd Edition.Cape Town: Zebra Publications. JUTA.

Booyens, S.W. 2007. *Dimensions of Nursing Management.*2nd Edition.Cape Town: Zebra Publications. JUTA.

Brink, H. 2006.*Fundamentals of Research Methodology*.2nd Edition.Juta& Co Pty Ltd

Burns, N. & Grove, S.K. 2007.*Understanding Nursing Research: Building an Evidence- Based Practice.* 4th Edition.Saunders Publishers.

Chan, E., Morrison, P. 2000. Factors influencing the retention and turnover intentions of registered nurses in a Singapore hospital.*Nursing and Health Sciences,* 2(10):113-121

Chanyeong, K., Bok, Y.C., Yu, Z & Cho, E. 2009. Relationship of job satisfaction with perceived organization support and quality of care among South Korean nurses: A questionnaire survey. *International Journal of Nursing Studies,* 47(10):1292-1298

Coomber, B., Louise, B. 2007. Impact of job satisfaction components on intent to leave and turnover for hospital-based nurses: A review of the research literature. *International Journal of Nursing Studies,* 44(2):297-314

de Beer, J., Brysiewicz, P., Bhengu, B.R. 2011. Intensive care nursing in South Africa.*South African Journal of Critical Care,* 27(1):6-10

De Vos, A.S., Strydom, H.,Fouche', C.B. & Delport, C.S.L. 2011. *Research At Grass Roots: For the social sciences and human service profession.* 4th Edition.Van Schaik Publishers.

Dlovo, D. 2007. Migration of nurses from sub-Saharan Africa: A Review of Issues and Challenges. *Health Research and Education Trust,* 42(3):1373-1385

Donoghue, C., Castle, N.G. 2007.Organizational and environmental effects on voluntary and involuntary turnover.*Health Care Management Review,* 32(4):360-368

El-Jardali, F., Merhi, M., Jamal, D., Dumit, G. &Mouro, G. 2009. Assessment of nurse retention challenges and strategies in Lebanese hospitals: The Perspective of Nursing Directors. *Journal of Nursing Management,* 17(4):453-462

Foglia, D.C., Grassley,J.S. 2010. Factors That Influence Pediatric Intensive Care Unit Nurses to Leave Their Jobs. *Critical Care Nursing Quarterly,* 33(4):302-316

Fouche', N. 2011.Stewardship in health care in the nursing profession, and of self.*South African Journal of Critical Care,27(2):38*

George, J.B. 1990. *Nursing Theories: The Base for Professional Nursing Practice.*3rd Edition.New Jersey: Prentice-Hall International Editions.

Hayajneh, Y.A., AbuAlRub, R.F., Athamneh, A.Z., Amakhzoomy, I.K. 2009. Turnover rate among registered nurses in the Jordanian hospitals: An Exploratory Study. *International Journal of Nursing Practice,* 15(4):303-310

Hayes, L.J., O'Brian-Pallas, L., Duffield, C., Shamian, J., Buchan, J., Hughes, F., Laschinger, H.K., North, N. & Stone, P.W., 2006.Nurse turnover: A literature review.*International Journal of Nursing Studies*, 43(2):237-263

Iwu, C.G., Allen-lle, C.O.K., Ukpere, W.I. 2012. Key factors of employee satisfaction for the retention of health related professionals in South Africa. *African Journal of Business Management,* 6(39):10487-10506

Kingma, M. 2007. Nurses on the move: A global overview. *Health Research and Educational trust.* 42(3):1281-1293

Kramer, L.W. 2010.Generational Diversity.*Dimensions of Critical Care Nursing,* 29(3):125-128

Laschinger, H.K.S. & Finegan, J. 2005.Using Empowerment to Build Trust and Respect in the Workplace: A Strategy for Addressing the Nursing Shortage.*Nursing Economic Journal,* 23(1):6-13

LeVasseur, S. A., Wang, C., Mathews, B. & Bollad, M. 2009.Generational differences in registered nurse turnover.*Policy, Politics and Nursing Practice,* 10(3):212-223

Meyer, S., Naude, M., van Niekerk, S. 2009. *The Nursing Manager: A Comprehensive Guide.*2nd Edition. Heinemann Higher and Further Education (Pty) Ltd

Mokoka, E., Oosthuizen, M.J., Ehlers, V.J. 2010. Retaining professional nurses in South Africa: Nurse managers' perspectives. *Journal of Interdisciplinary health services*, 15(1):484-500

Needleman, J., Buerhaus, P., Pankrtz, S., Lebson, C. L., Stevens, S. R., Harris, M. 2011. Nurse staffing and inpatient hospital mortality. *The New England Journal of Medicine,* 364(11):1037-1045

Odendaal, V., Nel, E.W. 2005. Support to critical care nursing personnel.*South African Journal of Critical Care,*21(2):95-100

Pillay, R. 2009. Retention strategies for professional nurses in South Africa.*Leadership in Health Services,* 22(1):39-57

Pretorius, R. & Klopper, H.C. 2011.Positive practise environment in critical care units in South Africa.*International Nursing Review,* 59(2):66-72

Roos, J.H. 2012. Quality of work life in health services: magnetism and mentorship. Department of Health Studies, University of South Africa, Cape Town

SANC (2011).[Internet]. Available from:www.sanc.co.za [Accessed on 28 November 2012].

Saunders, D. 2007. *Dorland's Medical Dictionary for Health Consumers.* 4thEdition.Elsevier.

Stanz, K. & Greyling, J. 2010.Turnover of nursing employees in a Gauteng hospital group.*South African Journal of Industrial Psychology,* 36(1):1-11

Stina, S., Goran, E., Goran, T. 2007. Nursing staff turnover: does leadership matter? *Leadership in Health Services*, 20(3):169-183

Verdon, M., Merlani, P., Perneger, T. & Ricou, B. 2008.Burnout in a surgical ICU team.*Intensive Care Medicine,* 34(1):152-156

Wadea, H, B. 2009. Diversity within Nursing; Effects on Nurse-Nurse Interaction, Job Satisfaction, and Turnover. *Nursing Administration Quarterly*, 33(3):216-226.

APPENDICES

APPENDIX 1: QUESTIONNAIRE

Research study: Evaluation of contextual factors influencing turnover in specified intensive care units in the Cape metropole.

Dear Colleague

You are invited to participate in the assessment of the turnover rate of intensive care nurses' research study, aiming in determining the factors contributing to turnover rate in specified hospitals of the Western Cape metropolitan area. This study will consist of approximately 200 participants. The informed consent form will be sent to you explaining in detail about the study. Please take some time to read the information provided and if there are any questions about the study, ask the researcher. After completing the consent form, it will be returned to the separate mailbox provided by Magana in the participating units.

Your participation is entirely voluntary and you are free to decline to participate and this will not affect you negatively in any way whatsoever. There are no risks associated with this study however, if you feel uncomfortable answering questions, you can withdraw from the study at any time.

Although there are no immediate benefits to the participant in this research study, the result of the study may benefit the institution in providing insight on the contributing factors of turnover.

The questionnaire will take approximately 30minutes. Please make sure you answer all the questions by marking a **X** in the blocks provided or fill in your response where requested. On completion, please put the questionnaire in the envelope provided, seal and return to Magana in the box provided in each unit.

Anonymity will be ensured through the anonymous completion of the questionnaire and the collection by posting it in the boxes provided. It will therefore not be possible to match the participants' identity with the completed questionnaires.

In case of any clarification, my contact number is

+27 723533295.

SECTION A: DEMOGRAPHIC DATA

Indicate your answer by placing an x in the open box next to the appropriate answer

1. What is your gender?

a .Male ☐

b. Female ☐

2. How old are you?

3. Are you married?

a. Yes ☐

b. No ☐

4. How long have you been employed?

a. < 2yrs ☐

b. 3-5yrs ☐

c. 5-10yrs ☐

d. >10yrs ☐

5. What is your rank?

a. Registered nurse ☐

b. Enrolled nurse ☐

d. Enrolled nurse assistance ☐

6. What is your highest qualification?

a. Degree ☐

b. Diploma ☐

c. Certificate ☐

d. Other ☐

7. Employment status.

a. Full time ☐

b. Part time ☐

c. Agency staff ☐

SECTION B: PERSONAL DATA

In my opinion		**Strongly disagree**	**Disagree**	**Agree**	**Strongly agree**
		1	**2**	**3**	**4**
1.Salary	1.1. The salary is sufficient to provide the daily needs.				
	1.2. Adequate and fair compensation.				
2. Promotion opportunities	2.1.There is equal promotion opportunities				
	2.2 Only after a certain period of time in the company.				
	2.3 .After completing further studies				

3.Physical development	3.1. There is enough physical development within the ICU. i.e. on job training like regular educational seminars				
	3.2. Enough career development and training opportunities in the ICU.				
4. **Performance evaluation.**	4.1. Effective performance evaluations were done according to the set processes namely: Communication skills, performance skills and punctuality. 4.2. Fair and just performance evaluations were done.				

	4.3 Career development identified during performance evaluation interview				
5.occupation specific dispensation	Occupation specific dispensation was allocated effectively				
6. Quality of work life in my opinion:	6.1. The shifts are flexible and manageable				
	6.2. There is evidence of effective communication and openness in the unit.				
	6.3. Participative management.				
	6.4. Harmony in the Unit.				
	6.5. Provision of autonomy and decision making in the unit.				

	6.6. Conflicts are managed fairly and effectively.				
	6.7. Right to privacy and freedom of speech in the Unit.				

SECTION C: WORK ENVIRONMENT

In your opinion there is…		**Strongly disagree**	**Disagree**	**Agree**	**Strongly agree**
		1	**2**	**3**	**4**
7.	Management style that facilitates rather than directs.				
8.	Enough working equipment in the Unit.				
9.	Job allocation is manageable (nurse: patient ratio balanced)				
10.	Manageable work load				
11.	Balance between working time and time away from work				

12.	Feeling valued by the organization				
13.	Flexible shifts				
14.	Effective communication between doctors and nurses				
15.	Job challenges				
16.	Respect and acknowledgement				
17.	Enough working space in the Unit				
18.	Equipment easily accessible in the Unit				
19.	Workload well distributed				
20.	Given enough responsibility at work				
21.	Enough lighting in the Unit				
22.	Discrimination in the work place				
23.	Favouritism exist in the work place				
24.	A professional support				

	system exist in the units				
25.	Effective communication channels between staff.				
26.	Effective infection control methods e.g., hand washing and availability of hand disinfectants				
27.	Does the institution Make use of agency staff frequently				
28.	In service training: Is staff encouraged to attend in service training programs				

29. Identify other factors that influence nurses to leave their current working environment

30 list a few recommendations to prevent nurses/ staff from seeking better working opportunities

Dear participant thank you for taking time during your busy schedule to complete the questionnaire.

+27(0) 723533295(Mobile) – Grace Magana (Researcher)

+27(0) 219389036 (Landline) – Mrs. A. Damons (Supervisor)

APPENDIX 2: INFORMED CONSENT

PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM

TITLE OF THE RESEARCH PROJECT: AN EVALUATION OF CONTEXUAL FACTORS INFLUENCING TURNOVER IN SPECIFIED INTENSIVE CARE UNITS IN THE CAPE METROPOL

REFERENCE NUMBER:

PRINCIPAL INVESTIGATOR: GRACE WANJERI MAGANA

ADDRESS: 16 SUIKERBOSSIE VILLA BELHAR 7493

CONTACT NUMBER: +27(0) 723533295

You are being invited to take part in a research project. Please take some time to read the information presented here, which will explain the details of this project. Please ask the study staff or doctor any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research entails and how you could be involved. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

This study has been approved by the **Health Research Ethics Committee (HREC) at Stellenbosch University** and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki, South African Guidelines for Good Clinical Practice and the Medical Research Council (MRC) Ethical Guidelines for Research.

What is this research study all about?

- The study will be conducted in intensive care units in two state hospitals and one private hospital. A total number of 210 participants will take part in the study
- The aim of this research project is to evaluate the contextual factors influencing turnover in specified intensive care units in the Cape Metropol
- The study only consists of questionnaires.

Why have you been invited to participate?

- You have been invited to partake in this study because I believe that your opinion is of great value. You will be able to provide us with information regarding factors influencing turnover in the intensive care unit. In this way we will be able to give feedback to the health facilities. Further this study could assist in reducing turnover in the intensive care units in the hospitals.

What will your responsibilities be?

- Your responsibility will only be to complete the questionnaire to the best of your ability.

Will you benefit from taking part in this research?

- Intensive care nurses and hospitals will benefit as this will give them information on the factors influencing turnover.

Are there in risks involved in your taking part in this research?

- There are no risks regarding this research

If you do not agree to take part, what alternatives do you have?

- Not Applicable

Who will have access to your information?

- The information collected will be kept confidential and protected. If the information given will be used in the publication of the thesis your identity will remain anonymous.
- Only the investigator will have access to the information.

Will you be paid to take part in this study and are there any costs involved?

- There will be no rewards / payments or costs for people partaking in this study.

Declaration by participant

By signing below, I …….…….. agree to take part in a research study entitled *(insert title of study)*.

I declare that:

- I have read or had read to me this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the study doctor or researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.

Signed at (*place*) .....….....…….. on (*date*) ……...…….. 2011.

....

Signature of participant Signature of witness

Declaration by investigator

I *(name)* …….…… declare that:

- I explained the information in this document to ……..
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter. (*If an interpreter is used then the interpreter must sign the declaration below.*

Signed at (*place*) .....…….....…….. on (*date*) ……...…….. 2011.

....

Signature of investigator Signature of witness

Declaration by interpreter

I *(name)* …….…… declare that:

-
- I assisted the investigator (*name*) …….. to explain the information in this document to (*name of participant*)

…….…….. using the language medium of Afrikaans/Xhosa.

- We encouraged him/her to ask questions and took adequate time to answer them.
- I conveyed a factually correct version of what was related to me.
- I am satisfied that the participant fully understands the content of this informed consent document and has had all his/her question satisfactorily answered.

Signed at (*place*) .....…....…….. on (*date*) ……...……..

....

Signature of interpreter Signature of witness

APPENDIX 3: ETHICAL LETTER OF APPROVAL

UNIVERSITEIT·STELLENBOSCH·UNIVERSITY
jou kennisvennoot · your knowledge partner

03 October 2011 **MAILED**

Ms G Magana
Department of Nursing
2nd Floor
Teaching Block

Dear Ms Magana

An evaluation of the contextual factors influencing turnover in specified intensive care units in the Cape Metropole.

ETHICS REFERENCE NO: N11/09/280

RE : APPROVAL

It is a pleasure to inform you that a review panel of the Health Research Ethics Committee has approved the above-mentioned project on 28 September 2011, including the ethical aspects involved, for a period of one year from this date.

This project is therefore now registered and you can proceed with the work. Please quote the above-mentioned project number in ALL future correspondence. You may start with the project. Notwithstanding this approval, the Committee can request that work on this project be halted temporarily in anticipation of more information that they might deem necessary.

Please note a template of the progress report is obtainable on www.sun.ac.za/rds and should be submitted to the Committee before the year has expired. The Committee will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly and subjected to an external audit.

Translations of the consent document in the languages applicable to the study participants should be submitted.

Federal Wide Assurance Number: 00001372
Institutional Review Board (IRB) Number: IRB0005239

The Health Research Ethics Committee complies with the SA National Health Act No.61 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 Part 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health).

Please note that for research at primary or secondary healthcare facility permission must still be obtained from the relevant authorities (Western Cape Department of Health and/or City Health) to conduct the research as stated in the protocol. Contact persons are Ms Claudette Abrahams at Western Cape Department of Health (healthres@pgwc.gov.za Tel: +27 21 483 9907) and Dr Hélène Visser at City Health (Helene.Visser@capetown.gov.za Tel: +27 21 400 3981). Research that will be conducted at any tertiary academic institution requires approval from the relevant hospital manager. Ethics approval is required BEFORE approval can be obtained from these health authorities.

Approval Date: 28 September 2011 Expiry Date: 28 September 2012

03 October 2011 08:22 Page 1 of 2

Fakulteit Gesondheidswetenskappe · Faculty of Health Sciences

Verbind tot Optimale Gesondheid · Committed to Optimal Health
Afdeling Navorsingsontwikkeling en -steun · Division of Research Development and Support
Posbus/PO Box 19063 · Tygerberg 7505 · Suid-Afrika/South Africa
Tel.: +27 21 938 9075 · Faks/Fax: +27 21 931 3352

UNIVERSITEIT·STELLENBOSCH·UNIVERSITY
jou kennisvennoot · your knowledge partner

Yours faithfully,

MS CARLI SAGER
RESEARCH DEVELOPMENT AND SUPPORT
Tel: +27 21 938 9140 / E-mail: carlis@sun.ac.za
Fax: +27 21 931 3352

Verbind tot Optimale Gesondheid · Committed to Optimal Health
Afdeling Navorsingsontwikkeling en -steun · Division of Research Development and Support
Posbus/PO Box 19063 Tygerberg 7505 Suid Afrika/South Africa
Tel.: +27 21 938 9075 · Faks/Fax: +27 21 931 3352

APPENDIX 4: SECOND ETHICAL LETTER OF APPROVAL

UNIVERSITEIT·STELLENBOSCH·UNIVERSITY
jou kennisvennoot • your knowledge partner

23 August 2012 **MAILED**

Ms G Magana
Department of Nursing
2nd Floor
Teaching Block

Dear Ms Magana

An evaluation of the contextual factors influencing turnover in specified intensive care units in the Cape Metropole.

ETHICS REFERENCE NO: N11/09/280

RE : PROGRESS REPORT

At a review panel meeting of the Health Research Ethics Committee that was held on 22 August 2012, the progress report for the abovementioned project has been approved and the study has been granted an extension for a period of one year from this date.

Please remember to submit progress reports in good time for annual renewal in the standard HREC format.

Approval Date: 22 August 2012 Expiry Date:22 August 2013

Yours faithfully

MRS MERTRUDE DAVIDS
RESEARCH DEVELOPMENT AND SUPPORT
Tel: 021 938 9207 / E-mail: mertrude@sun.ac.za
Fax: 021 931 3352

23 August 2012 14:24 Page 1 of 1

Fakulteit Gesondheidswetenskappe · Faculty of Health Sciences

Verbind tot Optimale Gesondheid · Committed to Optimal Health
Afdeling Navorsingsontwikkeling en -steun · Division of Research Development and Support
Posbus/PO Box 19063 · Tygerberg 7505 · Suid-Afrika/South Africa
Tel.: +27 21 938 9075 · Faks/Fax: +27 21 931 3352

APPENDIX 5: LETTERS FROM THE INSTITUTION HOSPITALS

Western Cape Government
Health

DIRECTORATE: COMMUNICATIONS
REFERENCE: Ms N Jacobs
ENQUIRIES: Nursing
19th December 2011
021 4026911

NEW SOMERSET HOSPITAL: CAPE TOWN

LETTER OF APPROVAL

Grace Wanjeri Magana is a registered student at Stellenbosch University 15943135 and currently doing her masters in Nursing.

The proposal is **An Evaluation of the Contexual factors influencing turnover in Specified Intensive Care units in the Cape Metropole.**

The student has been granted Ethical Approval from Stellenbosch University.

The institution has granted her permission to carry out her data collection at New Somerset Hospital.

The institution would appreciate a copy of the outcome of the study on New Somerset Hospital.

Yours faithfully

Jacobs

Ms N. Jacobs

Deputy Director

New Somerset Hospital

/pbnm

Recommended by Ms Roji 19/12/2011

NEW SOMERSET HOSPITA, PORTSWOOD ROAD, GREEN POINT, 8001

Western Cape Government
Health

DIRECTORATE: HEALTH
Groote Schuur Hospital
Enquiries: Dr Bhavna Patel
E-mail : Bhavna.Patel@pgwc.gov.za

Ms Grace Mangana
16 Suikerbossie Vilas
BELHAR
7493

Dear Ms Mangana

RESEARCH: An Evaluation of the Contextual Factors Influencing Turnover in Specific Intensive Care Units in the Cape Metropole

Your recent letter to the hospital refers.

You are hereby granted permission to proceed with your research.

Please note the following:

a) Your research may not interfere with normal patient care
b) Hospital staff may not be asked to assist with the research.
c) No hospital consumables and stationary may be used.
d) **No patient folders may be removed from the premises or be inaccessible.**
e) Please introduce yourself to the person in charge of an area before commencing.

I would like to wish you every success with the project.

Yours sincerely

Patel

DR BHAVNA PATEL
SENIOR MANAGER: MEDICAL SERVICES
Date: 31st October 2011

G46 Management Suite, Old Main Building,
Observatory 7925

Private Bag X,
Observatory, 7935

LETTER A;FROM THE FIRST EDITOR FOR EXAMINATION SUBMISSION OF THESIS.

DECLARATION

Hereby I, Mrs Melanie Bailey, ID no 4101130041082, B.A. U.E.D, delare that I edited the thesis of Grace Magana. I concentrated on the grammar and language and am not responsible for the contents. Nor was I involved in drawing up the questionnaire.

Signed : MBailey

4 December 2012

LETTER B: FROM THE EDITOR STELLENBOSCH UNIVERSITY:

07 February 2013
To whom it may concern
RE: Proofreading and editing of Ms. Grace W Magana's thesis
This letter serves as confirmation that Ms. Magana approached me (on Sunday, 3 February 2013) to proofread and edit her thesis. The reason being that she had received comments from one of her internal examiners stating that her thesis was riddled with language issues, particularly poor grammar and sentence construction. Another reason was that she had limited time, before resubmission, to correct all the language issues. She also mentioned that she attended some sessions at the writing centre at her university. However, while the writing sessions were helpful, the amount of work covered in the sessions was too little for the amount of time that she had to get the thesis up to standard.
Ms. Magana also informed me that, prior to the initial submission of her thesis for examination, she had sent it for professional proofreading and editing as well as technical care (to an editing company). It is evident, from the examiner's comments, and my opinion, that Ms Magana spent hundreds of Rands from her own income to pay someone that did not even attempt to address technical care issues.
I worked with Ms Magana from 03 – 07 February 2013. From Monday, 04 February, I was in possession of a scanned copy of her marked thesis containing the examiner's comments. I only dealt with Chapters 1 to 5 and did not assist with content because I am not an expert in the field. I made sure that she addressed all the content issues prior to us addressing the language. I rewrote some of the sentences wherever the examiner pointed to poor sentence construction or grammar. In most cases the poor sentence construction resulted from a lack of punctuation. While the grammatical issues were extensively addressed, attention was also given to logical flow of paragraphs. Most of the reshuffling of paragraphs was done in Chapters 1, 2, and 4.
I declare that I do not own a registered proofreading and editing company, but I have extensive experience in editing and proofreading, which I have been doing on a freelance basis (for the past 4 years) as additional income. Please refer to my advertisement (www.gumtree.co.za; search for the Ad ID 345354049) for further information. I have personally written two theses in Natural Sciences subjects, I therefore understand the technical language used in her study. Ms. Magana was receptive to suggestions and she promptly addressed issues that were previously overlooked.
Should you have any other questions please feel free to send me an e-mail: the.proof.editor@gmail.com, I never meet with my clients and all communication is electronic, not telephonic.
Kind Regards,
Emma Manzini (Freelance Proofreader and Editor)

FINAL LETTER C: FROM EXTERNAL EDITOR:

TO WHOM IT MAY CONCERN

This serves to confirm that I, Tyrone Andrew Nightingale, have completed the editing and proofreading of a 103-page transcript of Ms Grace Magana's Master's Thesis entitled: *Contextual Factors Influencing the turnover of nurses in specified intensive care units in the Cape Metropole.*

Yours sincerely

T.A. Nightingale

DATE: 20 February 2013